



# Department of Defense MANUAL

NUMBER 4715.20

March 9, 2012

Incorporating Change 1, August 31, 2018

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USD(A&S)

SUBJECT: Defense Environmental Restoration Program (DERP) Management

References: See Enclosure 1

1. PURPOSE. This Manual:

a. In accordance with the authority in DoD Directive (DoDD) 5134.01 (Reference (a)) and the guidance in DoDD 4715.1E (Reference (b)) and DoD Instruction (DoDI) 4715.7 (Reference (c)), implements policy, assigns responsibilities, and provides guidance and procedures for managing DERP.

b. Incorporates and cancels Deputy Under Secretary of Defense for Installations and Environment (DUSD(I&E)) Memorandums (References (d) through (j)), Deputy Under Secretary of Defense for Environmental Security Memorandums (References (k) and (l)), and Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) Memorandum (Reference (m)).

2. APPLICABILITY. This Manual:

a. Applies to:

(1) OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (hereinafter referred to collectively as the "DoD Components").

(2) Environmental restoration when undertaken by a DoD Component within the United States.

b. Does not apply:

(1) To the civil works projects of the U.S. Army Corps of Engineers (USACE).

(2) Outside of the United States.

c. Is for the internal management use of the DoD and does not create any independent right enforceable against the DoD, the United States, or their officers, agents, or employees. Where more specific guidance is required, refer to the applicable DoD Component and Formerly Used Defense Sites (FUDS) program guidance documents.

3. DEFINITIONS. See Glossary.

4. POLICY. It is DoD policy in accordance with Reference (c) that the DoD shall:

a. Identify, evaluate and, where appropriate, remediate contamination resulting from DoD activities.

b. Ensure immediate action to remove imminent threats to human health and the environment.

c. Comply with applicable statutes, regulations, Executive orders (E.O.s), and other legal requirements governing response actions to address contamination.

d. Execute an environmental restoration program, known as DERP, at facilities under the jurisdiction of the Secretary of Defense pursuant to section 2701(a)(1) of title 10, United States Code (U.S.C.) (Reference (n)).

e. Pursuant to section 2703(g) of Reference (n), the Environmental Restoration Accounts (ERAs) established in section 2703(a) of Reference (n) and the Base Realignment and Closure (BRAC) Accounts established in sections 2906 and 2906A of Public Law 101-510 (Reference (o)) are the sole sources of funding from DoD appropriations for environmental restoration activities identified in this Manual, regardless of the statutory authority governing the activity or the date of the release, unless otherwise excepted by law.

5. RESPONSIBILITIES. See Enclosure 2.

6. PROCEDURES. Enclosure 3 provides overarching procedures and requirements for conducting environmental restoration activities.

7. INFORMATION COLLECTIONS REQUIREMENTS. The DERP Information System and Reports referred to in paragraph 1.d. of Enclosure 2 and paragraph 8.b. of Enclosure 3 of this issuance is submitted to Congress in accordance with chapter 160 of Reference (n) and is

coordinated with the Office of the Assistant Secretary of Defense for Legislative Affairs in accordance with DoDI 5545.02 (Reference (p)).

8. RELEASABILITY. UNLIMITED. This Manual is approved for public release and is available on the Internet from the DoD Issuances Website at <http://www.dtic.mil/whs/directives>.

9. SUMMARY OF CHANGE 1. This change reassigns the office of primary responsibility for this Manual to the Under Secretary of Defense for Acquisition and Sustainment in accordance with the July 13, 2018 Deputy Secretary of Defense Memorandum (Reference (cp)).

10. EFFECTIVE DATE. This Manual is effective upon its publication to the DoD Issuances Website.



Frank Kendall  
Acting Under Secretary of Defense for  
Acquisition, Technology and Logistics

Enclosures

1. References
2. Responsibilities
3. Procedures

Glossary

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REFERENCES

- (a) DoD Directive 5134.01, "Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L))," December 9, 2005
- (b) DoD Directive 4715.1E, "Environment, Safety, and Occupational Health (ESOH)," March 19, 2005
- (c) DoD Instruction 4715.7, "Environmental Restoration Program," April 22, 1996
- (d) Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Management Guidance for the Defense Environmental Restoration Program," September 21, 2001 (hereby cancelled)
- (e) Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Interim Policy for Defense Environmental Restoration Program (DERP) Eligibility," December 29, 2008 (hereby cancelled)
- (f) Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Interim Policy on Integration of Natural Resource Injury Responsibilities and Environmental Restoration Activities," May 2, 2000 (hereby cancelled)
- (g) Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Principles and Procedures for Specifying, Monitoring, and Enforcement of Land Use Controls and Other Post-ROD Actions," October 2, 2003 (hereby cancelled)
- (h) Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Use of Fort Eustis Federal Facility Agreement as DoD-EPA Standard Federal Facility Agreement," April 3, 2009 (hereby cancelled)
- (i) Deputy Under Secretary of Defense for Installations and Environment Memorandum "Defense Environmental Restoration Program Interim Guidance for Estimating Program Costs and Environmental Liabilities," December 14, 2007 (hereby cancelled)
- (j) Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Consideration of Green and Sustainable Remediation Practices in the Defense Environmental Restoration Program," August 10, 2009 (hereby cancelled)
- (k) Deputy Under Secretary of Defense for Environmental Security Memorandum, "Policy on Land Use Controls Associated with Environmental Restoration Activities," January 17, 2001 (hereby cancelled)
- (l) Deputy Under Secretary of Defense for Environmental Security Memorandum, "Lead-Based Paint Policy for Disposal of Residential Real Property," January 7, 2000 (hereby cancelled)
- (m) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, "Responsibility for Additional Environmental Cleanup after Transfer of Real Property," July 25, 1997 (hereby cancelled)
- (n) Title 10, United States Code
- (o) Sections 2906 and 2906A of Public Law 101-510, the "Defense Base Closure and Realignment Act of 1990," November 5, 1990
- (p) DoD Instruction 5545.02, "DoD Policy for Congressional Authorization and Appropriations Reporting Requirements," December 19, 2008
- (q) Executive Order 12580, "Superfund Implementation," January 23, 1987, as amended

- (r) Sections 300f-300j-26, 2011-2297, 6901-6999k,<sup>1</sup> and 9601-9675<sup>2</sup> of title 42, United States Code
- (s) Parts 264-266, 280, 300,<sup>3</sup> and 373 of title 40, Code of Federal Regulations
- (t) DoD 7000.14-R, “Department of Defense Financial Management Regulations (FMRs),” current edition
- (u) DoD Directive 6055.9E, “Explosives Safety Management and the DoD Explosives Safety Board,” August 19, 2005
- (v) DoD Instruction 6055.16, “Explosives Safety Management Program,” July 29, 2008
- (w) DoD Manual 6055.09, “DoD Ammunition and Explosives Safety Standards,” February 29, 2008
- (x) Deputy Under Secretary of Defense for Environmental Security, “Relative Risk Site Evaluation Primer,” Summer 1997<sup>4</sup>
- (y) Parts 174, 179, 202, and 203 of title 32, Code of Federal Regulations
- (z) Deputy Secretary of Defense Memorandum, “Demilitarization of Non-Stockpile Chemical Warfare Munitions, Agents and By-Products,” March 13, 1991
- (aa) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, “Final Implementation Plan for the Recovery and Destruction of Buried Chemical Warfare Materiel,” March 1, 2010
- (ab) DoD Directive 5145.01, “General Counsel of the Department of Defense,” May 2, 2001
- (ac) DoD Instruction 5030.7, “Coordination of Significant Litigation and Other Matters Involving the Department of Justice,” August 22, 1988
- (ad) Section 572 of title 40, United States Code
- (ae) Department of Defense and Environmental Protection Agency Publication, “Interim Final Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property – A Field Guide,” December 1999<sup>4</sup>
- (af) Memorandum of Understanding Between the U.S. Environmental Protection Agency and the U.S. Department of Defense, “Support for Department of Defense (DoD) Cleanup Implementation for Base Realignment and Closure (BRAC) Installations Rounds I – IV,” February 20, 2008<sup>4</sup>, as amended
- (ag) Sections 502 and 1304 of title 31, United States Code
- (ah) Deputy Secretary of Defense Memorandum, “Department of Defense Initial Guidance for BRAC 2005 Joint Basing Implementation,” January 22, 2008
- (ai) Deputy Under Secretary of Defense for Installations and Environment Memorandum, “Environmental Supplemental Guidance for Implementing and Operating a Joint Base,” April 15, 2008<sup>5</sup>
- (aj) Defense Base Closure and Realignment Commission, “2005 Defense Base Closure and Realignment Commission Report,” September 8, 2005

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<sup>1</sup> Formally titled the “Solid Waste Disposal Act” but commonly known as the “Resource Conservation and Recovery Act of 1976” and referred to in this Manual as “RCRA.”

<sup>2</sup> Formally titled the “Comprehensive Environmental Response, Compensation, and Liability Act of 1980” and referred to in this Manual as “CERCLA.”

<sup>3</sup> Formally titled the “National Oil and Hazardous Substances Pollution Contingency Plan” and referred to in this Manual as the “NCP.”

<sup>4</sup> Copies may be obtained at <http://www.denix.osd.mil>.

<sup>5</sup> Copies may be obtained at <https://www.us.army.mil/suite/page/560093>.

- (ak) Department of Defense and Environmental Protection Agency Memorandum, “Interim Final Management Principles for Implementing Response Actions at Closed, Transferring, and Transferred Ranges,” March 7, 2000<sup>4</sup>
- (al) Office of Solid Waste and Emergency Response Directive 9272.0-22, “Improving RCRA/CERCLA Coordination at Federal Facilities,” December 21, 2005
- (am) DoD Instruction 4715.15, “Environmental Quality Systems,” December 11, 2006
- (an) Environmental Protection Agency Publication No. EPA-505-B-04-900A/Defense Technical Information Center Publication No. ADA 427785, “Uniform Federal Policy for Quality Assurance Project Plans: Evaluating, Assessing, and Documenting Environmental Data Collection and Use Programs,” March 2005
- (ao) DoD Environmental Data Quality Workgroup Manual, “DoD Quality Systems Manual for Environmental Laboratories,” April 22, 2009<sup>4</sup>
- (ap) Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health Memorandum, “DoD Environmental Laboratory Accreditation Program (DoD ELAP),” December 24, 2008<sup>4</sup>
- (aq) Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health and Director, Defense Procurement and Acquisition Policy Memorandum, “Acquisitions Involving Environmental Sampling or Testing Services,” December 4, 2007<sup>6</sup>
- (ar) Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health Memorandum, “DoD Quality Assurance Guidance for the Munitions Response Site Prioritization Protocol,” May 1, 2007<sup>4</sup>
- (as) Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health Primer, “Munitions Response Site Prioritization Protocol Primer,” June 13, 2007<sup>7</sup>
- (at) Environmental Protection Agency Publication No. EPA-540/1-89/002, “Risk Assessment Guidance for Superfund, Volume I – Human Health Evaluation Manual, (Part A)” December 1989<sup>8</sup>
- (au) Office of Solid Waste and Emergency Response Directive 9285.7-41, “Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites,” September 2002
- (av) Office of Solid Waste and Emergency Response Directive 9285.7-53, “Human Health Toxicity Values in Superfund Risk Assessments,” December 5, 2003
- (aw) DoD Instruction 4715.18, “Emerging Contaminants (ECs),” June 11, 2009
- (ax) Environmental Council of States/DoD Sustainability Work Group Paper, “Identification and Selection of Toxicity Values/Criteria for CERCLA and Hazardous Waste Site Risk Assessments in the Absence of IRIS Values,” April 23, 2007
- (ay) Office of Solid Waste and Emergency Response Directive 9283.1-33, “Summary of Key Existing EPA CERLCA Policies for Groundwater Restoration,” June 26, 2009
- (az) Office of Solid Waste and Emergency Response Directive 9355.0-30, “Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions,” April 22, 1991
- (ba) Office of Solid Waste and Emergency Response Directive 9234.2-01/FS-A, “ARAR’s Q’s & A’s: General Policy, RCRA, CWA, SDWA, Post-ROD Information, and Contingent Waivers,” July 1991

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<sup>6</sup> Copies may be obtained by entering [http://www.acq.osd.mil/dpap/dars/pgi/pgi\\_htm/PGI223\\_7.htm#](http://www.acq.osd.mil/dpap/dars/pgi/pgi_htm/PGI223_7.htm#) and clicking on the Policy tab.

<sup>7</sup> Copies may be obtained at <http://www.denix.osd.mil/derp/>

<sup>8</sup> Copies may be obtained at <http://www.epa.gov/oswer/riskassessment/ragsa/>.

- (bb) Environmental Protection Agency Publication No. EPA-540-R-98-031, "Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents," July 1999
- (bc) Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management," January 24, 2007
- (bd) Environmental Protection Agency, "Ground-Water Protection Strategy," August 1984<sup>9</sup>
- (be) Environmental Protection Agency Publication No. EPA-440/6-86-007, "Guidelines for Ground-Water Classification Under the EPA Ground-Water Protection Strategy," November 1986
- (bf) Office of Solid Waste and Emergency Response Directive 9200.4-17P, "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites," April 21, 1999
- (bg) Office of Solid Waste and Emergency Response Directive 9355.0-69, "Rules of Thumb for Superfund Remedy Selection," August 1997
- (bh) Office of Solid Waste and Emergency Response Directive 9234.2-25, "Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration," September 1993
- (bi) Department of Defense and Environmental Protection Agency Joint Guidance, "Recommended Streamlined Site Closeout and NPL Deletion Process for DoD Facilities," January 19, 2006
- (bj) Office of Solid Waste and Emergency Response Directive 9355.7-03B, "Comprehensive Five-Year Review Guidance," June 2001<sup>10</sup>
- (bk) DoD Manual 4165.66, "Base Redevelopment and Realignment Manual," March 1, 2006
- (bl) DoD Instruction 4165.72, "Real Property Disposal," December 21, 2007
- (bm) Sections 2601-2695d of title 15, United States Code
- (bn) Deputy Under Secretary of Defense for Installations and Environment Handbook, "DoD Vapor Intrusion Handbook," January 2009<sup>4</sup>
- (bo) Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," October 8, 2009
- (bp) Environmental Protection Agency and Department of the Army Agreement, "Fort Eustis Federal Facility Agreement," March 25, 2008<sup>4</sup>
- (bq) DoD Manual 4140.25, "DoD Management of Bulk Petroleum Products, Natural Gas, and Coal," current edition
- (br) Subparts 1220-1238 of title 36, Code of Federal Regulations
- (bs) Subparts 102-193 of title 41, Code of Federal Regulations
- (bt) Office of the Deputy Under Secretary of Defense for Installations and Environment Guide, "Early Transfer Authority: A Guide to Using ETA to Dispose of Surplus Property," October 2004
- (bu) DoD Instruction 5000.61, "DoD Modeling and Simulation (M&S) Verification, Validation, and Accreditation (VV&A)," December 9, 2009
- (bv) Deputy Under Secretary of Defense for Installations and Environment, Business Enterprise Integration Directorate, "DoD Business Process Reengineering Environmental Liabilities Recognition, Valuation, and Reporting Requirements Document," July 19, 2006

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<sup>9</sup> Copies may be obtained at [http://www.epa.gov/superfund/health/conmedia/gwdocs/use\\_det.htm](http://www.epa.gov/superfund/health/conmedia/gwdocs/use_det.htm).

<sup>10</sup> Copies may be obtained at <http://www.epa.gov/superfund/accomp/5year/index.htm>.



- (bw) Deputy Under Secretary of Defense for Installations and Environment Memorandum, “Guidance on Training Standards for Environmental Liabilities Recognition, Estimating, and Reporting,” December 14, 2007<sup>4</sup>
- (bx) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, “Policy Covering Cost Recovery/Cost Sharing Under the Defense Environmental Restoration Program (DERP),” February 27, 1998<sup>4</sup>
- (by) Office of Management and Budget Statement of Federal Financial Accounting Standards No. 5, “Accounting for Liabilities of the Federal Government,” September 1995<sup>11</sup>
- (bz) Federal Accounting Standards Advisory Board Statement of Federal Financial Accounting Standards No. 6, “Accounting for Property, Plant, and Equipment,” June 1996<sup>12</sup>
- (ca) Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense, Plan “Defense Financial Improvement and Audit Readiness Plan,” September 30, 2007
- (cb) DoD Instruction 5010.40, “Managers’ Internal Control Program (MICP) Procedures,” July 29, 2010
- (cc) Office of Management and Budget Circular No. A-123, “Management Accountability and Control,” December 21, 2004
- (cd) Memorandum of Understanding Between the Agency for Toxic Substances and Disease Registry, U.S. Public Health Service, and the U.S. Department of Defense, “The Development of Toxicological Profiles for Hazardous Substances and Public Health Assessments and Related Activities at DoD Facilities,” as amended<sup>4</sup>
- (ce) Department of Defense and State Memorandum of Agreement/Cooperative Agreement Program Guide, “Working Together to Achieve Cleanup: A Guide to the Cooperative Agreement Process,” July 31, 2006<sup>13</sup>
- (cf) DoD 3210.6-R, “Department of Defense Grant and Agreement Regulations,” April 13, 1998
- (cg) Office of Management and Budget Circular No. A-87, “Cost Principles for State, Local, and Indian Tribal Governments,” August 29, 1997
- (ch) Office of Management and Budget Circular No. A-110, “Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations,” September 30, 1999
- (ci) Office of Management and Budget Circular No. A-133, “Audits of States, Local Governments, and Non-Profit Organizations,” June 26, 2007
- (cj) DoD Instruction 4710.02, “DoD Interactions with Federally Recognized Tribes,” September 14, 2006
- (ck) Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments,” November 6, 2000
- (cl) Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” February 11, 1994, as amended
- (cm) Office of the Secretary of Defense Handbook, “Restoration Advisory Board Rule Handbook,” March 2007
- (cn) U.S. Army Corps of Engineers Publication, “FUDS Program Guidance to Implement Army Interim Policy for Integrating Natural Resource Injury Responsibilities and Environmental Response Activities,” February 25, 2003<sup>4</sup>
- (co) DoD Instruction 3200.16, “Operational Range Clearance,” June 13, 2005

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<sup>11</sup> Copies may be obtained at <http://www.fasab.gov/pdf/files/sffas-5.pdf>.

<sup>12</sup> Copies may be obtained at <http://www.fasab.gov/standards.html>.

<sup>13</sup> The CA Guide is available to authorized users at <https://dsmoa.usace.army.mil/>

- (cp) Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018

ENCLOSURE 2

RESPONSIBILITIES

1. DUSD(I&E). The DUSD(I&E), under the authority, direction, and control of the USD(AT&L) and in addition to the responsibilities assigned to the former Deputy Under Secretary of Defense for Environmental Security (DUSD(ES)) in Reference (c), shall:

a. Protect human health and the environment by executing the responsibilities and exercising the authorities of the Secretary of Defense in chapter 160 of Reference (n), and E.O. 12580 (Reference (q)), as delegated to the former DUSD(ES) in Reference (c), and by implementing:

(1) Sections 9601-9675 of title 42, U.S.C. (formally titled the “Comprehensive Environmental Response, Compensation, and Liability Act of 1980” and hereafter referred to as “CERCLA” (Reference (r))).

(2) Part 300 of title 40, Code of Federal Regulations (CFR) (formally titled the “National Oil and Hazardous Substances Pollution Contingency Plan” and hereafter referred to as the “NCP” (Reference (s))).

(3) Sections 6901-6999k of Reference (r) (formally titled the “Solid Waste Disposal Act” but commonly known as the “Resource Conservation and Recovery Act of 1976” and hereafter referred to as “RCRA”).

b. Oversee DERP execution by the heads of the DoD Components, including developing DERP policy and guidance, conducting program reviews, and evaluating DoD Component DERP execution based on the goals and metrics in section 9 of Enclosure 3.

c. Propose updates to DoD 7000.14-R (Reference (t)) to the Under Secretary of Defense (Comptroller) (USD(C))/Chief Financial Officer (CFO), Department of Defense, through the USD(AT&L).

d. Maintain the DERP information system established pursuant to Reference (c) that is the central source for all site and programmatic information; issue annual and ad hoc data calls as required.

e. Coordinate with other Federal agencies and with State, Indian tribal, and territorial governments regarding DERP issues related to their authorities.

f. Respond to congressional requests for information. Pursuant to Reference (c) and in accordance with chapter 160 of Reference (n), prepare and issue the Defense Environmental Programs Annual Report to Congress (DEP ARC) (formerly known as the “DERP Annual Report to Congress”).

g. Pursuant to Reference (c) and in accordance with DoD fiscal and DERP policy and guidance, comment on and compile the program objective memorandum (POM) for the FUDS

ERA and the Defense-Wide ERA, which includes non-BRAC funding for the DUSD(I&E), the Defense Logistics Agency (DLA), and the Defense Threat Reduction Agency. Prepare the budget exhibits for the budget estimate submission (BES) and President's Budget; submit the POM and budget exhibits to the Director, Cost Assessment and Program Evaluation (DCAPE), and the USD(C)/CFO through the Select and Native Programming Data Input System (SNaP).

h. Pursuant to Reference (c), comment on the DoD Component ERA and BRAC Account POM and budget submissions.

i. Oversee the DoD Cleanup Committee (established in Reference (c) as the "Environmental Security Cleanup Committee") and issue its charter.

j. Negotiate and sign agreements to support DERP execution, as appropriate, with other organizations (e.g., Agency for Toxic Substances and Disease Registry (ATSDR), Environmental Protection Agency (EPA)).

k. Review and, if appropriate, concur on Federal facility agreements (FFAs).

l. Provide guidance and oversight of the Defense and State Memorandum of Agreement (DSMOA) program, and to the Secretary of the Army as lead agent for the DSMOA program as designated in Reference (c), to ensure program effectiveness.

m. Provide oversight, including guidance, planning, programming, and budgeting, to the Secretary of the Army as lead agent for the FUDS program.

n. Evaluate potential DoD Component involvement in a third-party site (TPS) when multiple DoD Components are involved.

o. Review and, if appropriate, approve in writing DoD Component use of:

(1) The act of war provision described in subparagraph 2.d.(8) of Enclosure 3. The DUSD(I&E) will review the DoD Component's rationale for the exclusion to ensure consistency with the DERP combat operations exclusion pursuant to section 2710(d)(2) of Reference (n) and the act of war defense pursuant to section 9607(b)(2) of CERCLA.

(2) Environmental regulators' classification of unexploded ordnance (UXO) as a CERCLA hazardous substance or a RCRA statutory waste, other than as described in subparagraph 3.b.(2) of Enclosure 3.

(3) ERA for building demolition and debris removal (BD/DR), pursuant to subparagraph 3.c.(2)(b) of Enclosure 3.

(4) An authority for environmental restoration other than CERCLA or RCRA, pursuant to subparagraph 4.a.(1)(a)2. and 3. of Enclosure 3.

(5) Property transfers within the DoD that do not conform to the procedures in subparagraphs 10.b.(1)(a) and (b) of Enclosure 3.

2. CHAIR, DoD EXPLOSIVES SAFETY BOARD (DDESB). The DDESB Chair, under the authority, direction, and control of the DUSD(I&E) and in addition to the responsibilities in DoDD 6055.9E (Reference (u)), shall review and, if appropriate, approve in writing quantity distance safety submissions (i.e., explosives site plan and chemical agent site plan), munitions response explosives safety submissions (MRESS), and munitions response chemical safety submissions (MRCSS) required as part of environmental restoration activities to address munitions and explosives of concern (MEC), in accordance with DoDI 6055.16 and DoD Manual (DoDM) 6055.09 (References (v) and (w)).

3. HEADS OF THE DoD COMPONENTS WITH DERP RESPONSIBILITIES. The Heads of the DoD Components with DERP responsibilities, in addition to the responsibilities in Reference (c), shall:

a. Execute DERP pursuant to Reference (c), chapter 160 of Reference (n), DERP policies and guidance, this Manual, and consistent with applicable statutes (e.g., CERCLA) and regulations. The DoD Component shall protect human health and the environment by exercising those Presidential authorities in sections 9601-9675 of CERCLA delegated to them and in accordance with the NCP, subject to the concurrent authority of USD(AT&L) and DUSD(I&E).

b. Manage their DERP responsibilities subject to the oversight of the DUSD(I&E).

c. Plan, program, and budget the ERA and BRAC Accounts to execute DERP to meet DoD goals and metrics pursuant to section 9 of Enclosure 3 and in accordance with DoD fiscal and DERP policy and guidance. Prepare the POM and the budget exhibits for the BES and President's Budget; submit to the DCAPE, and the USD(C)/CFO through the SNaP process.

d. Monitor DERP execution and progress and collect and maintain data and documentation by site. Submit updated data to the DERP information system as requested by the DUSD(I&E).

e. Respond to DUSD(I&E) data calls and other requests for information.

f. Forward negotiated FFAs to the DUSD(I&E), the Deputy General Counsel for Environment and Installations (DGC(E&I)), and the other Heads of the DoD Components with DERP responsibilities for review and concurrence pursuant to paragraph 6.g. of Enclosure 3. Pursuant to Reference (c), negotiate and sign other types of Federal and State restoration agreements, as appropriate.

g. Forward a memorandum and supporting documentation to the DUSD(I&E) for review and approval of any DoD Component's use of:

(1) The act of war ineligibility provision, pursuant to subparagraph 2.d.(8) of Enclosure 3.

(2) Environmental regulators' classification of UXO as a CERCLA hazardous substance, or a RCRA statutory waste, except as described in subparagraph 3.b.(2) of Enclosure 3.

(3) ERA for BD/DR, pursuant to subparagraph 3.c.(2)(b) of Enclosure 3.

(4) An authority for environmental restoration other than CERCLA or RCRA, pursuant to subparagraphs 4.a.(1)(a)2. and 3. of Enclosure 3.

(5) Property transfers within the DoD that do not conform to the procedures in subparagraphs 10.b.(1)(a) and (b) of Enclosure 3.

h. Serve as the lead agent at DERP sites pursuant to CERCLA, Reference (q), and NCP; execute lead agent responsibilities; and, pursuant to Reference (c), select preferred alternatives and sign decision documents (DDs).

i. Pursuant to Reference (c), coordinate with Federal, State, Indian tribal, and territorial environmental agencies to execute response actions at DERP sites under the DoD Component's authority.

j. Execute responsibilities as required in agreements between the DoD and other organizations to support DERP execution.

k. Determine the sequence for funding actions at DERP sites by evaluating the relative risk and explosive hazard to human health and the environment using the DUSD(ES) Primer (hereafter referred to as the "Relative Risk Site Evaluation (RRSE) Primer" (Reference (x)) or part 179 of title 32, CFR (hereafter referred to as the "Munitions Response Site Prioritization Protocol (MRSPP)" (Reference (y)) as appropriate pursuant to subparagraph 4.b.(3) of Enclosure 3.

l. Meet all public participation requirements for the environmental restoration process in accordance with Reference (c).

m. Defend TPS claims alleging the liability of DoD Components under any environmental law related to environmental restoration.

4. SECRETARY OF THE ARMY. The Secretary of the Army, in addition to the responsibilities in section 3 of this enclosure, shall:

a. Act as the lead agent for DSMOA pursuant to paragraph 5.8.2.1. of Reference (c), subject to DUSD(I&E) oversight pursuant to paragraph 1.1. of this enclosure. This shall include:

(1) Ensuring that the DSMOA program is operated consistent with policy and guidance.

(2) Interacting with the State and territorial regulatory community on overall management of cooperative agreements (CAs) and DSMOA program funding.

(3) Negotiating DSMOAs for DUSD(I&E) signature; coordinating with all participating DoD Components; notifying the DoD Component of the costs of each CA in a timely manner to

enable the DoD Component to plan, program, and budget accordingly; and reporting on program progress.

b. Act as the lead agent for ATSDR pursuant to paragraph 5.8.2.2. of Reference (c). Pursuant to section 9604(i)(6) of CERCLA, ATSDR is responsible for conducting public health assessments at all sites on or proposed for the National Priorities List (NPL).

c. Act as the lead agent for and identify to the DUSD(I&E) funding required for the FUDS program, subject to the oversight of the DUSD(I&E) and in accordance with paragraph 1.m. of this enclosure. This shall include:

(1) Maintaining an inventory of all FUDS, tracking activities at FUDS, and reporting program progress.

(2) Determining eligibility of property for FUDS program action and conducting environmental restoration activities at eligible properties on behalf of the DoD Component.

(3) Implementing FUDS policy and guidance and reviewing program execution.

(4) Meeting all public participation requirements for the environmental restoration process at FUDS in accordance with Reference (c).

d. Acting in his or her capacity as DoD Executive Agent for Chemical Demilitarization pursuant to the Deputy Secretary of Defense Memorandum (Reference (z)), be responsible for recovered chemical warfare materiel (CWM) on DERP eligible sites as clarified by the USD(AT&L) Memorandum (Reference (aa)).

5. DGC(E&I). The DGC(E&I), under the authority, direction, and control of the General Counsel of the Department of Defense, shall:

a. Provide legal advice and counsel to OSD organizations and, as appropriate, other DoD Components regarding environmental restoration issues.

b. Serve as the legal advisor to the DoD Cleanup Committee.

c. Determine the DoD position on specific legal problems, including litigation and defenses raised, related to environmental restoration, pursuant to paragraph 3.10 of DoDD 5145.01 (Reference (ab)) and DoDI 5030.7 (Reference (ac)).

d. Evaluate TPS claims when multiple DoD Components are involved and determine which DoD Component will take the lead for legal defense at the TPS.

ENCLOSURE 3

PROCEDURES

1. DERP OVERVIEW. The DoD Component primarily conducts environmental restoration activities in accordance with CERCLA and may also conduct activities in accordance with RCRA and other applicable Federal, State, interstate, and local requirements.

a. DERP

(1) All environmental restoration activities identified as eligible in section 2 of this enclosure shall comply with the statutory requirements of chapter 160 of Reference (n).

(2) In accordance with 2701(b) of Reference (n), DERP includes:

(a) The identification, investigation, research and development, and cleanup of contamination from hazardous substances and pollutants or contaminants.

(b) Correction of other environmental damage (such as detection and disposal of UXO) which creates an imminent and substantial endangerment to the public health or welfare or to the environment. Response actions to correct this damage shall normally be conducted in accordance with CERCLA, NCP, and Reference (q).

(c) Demolition and removal of unsafe buildings and structures, including DoD buildings and structures at sites formerly used by or under the jurisdiction of the Secretary of Defense. The demolition and removal of unsafe buildings and structures are not subject to CERCLA unless they involve the need for, or are an integral part of, a response action to address releases to the environment of CERCLA hazardous substances or pollutants or contaminants that pose an imminent threat to the public health or welfare or the environment.

(3) Response actions taken in accordance with DERP to address releases of hazardous substances and pollutants or contaminants shall normally be carried out pursuant to section 9620 of CERCLA.

(4) Pursuant to section 2710(a) of Reference (n), the DoD shall develop and maintain an inventory of defense sites that are known or suspected to contain UXO, discarded military munitions (DMM), or munitions constituents (MC) and shall annually review and update the inventory and site prioritization list to reflect new information that becomes available in accordance with section 2710(c) of Reference (n) and the annual DUSD(I&E) data call.

(5) Pursuant to section 2703(g) of Reference (n), the ERAs established in section 2703(a) of Reference (n) and the BRAC Accounts established in Reference (o) are the sole sources of funding for all phases of an environmental remedy identified as eligible in section 2 of this enclosure, regardless of the statutory authority governing the activity or the date of the release. The only exceptions are that the DoD Component may:



(a) Use a portion of the proceeds from the sale of military installation real property owned by the United States to pay for environmental restoration in some circumstances pursuant to sections 572(b)(5) of title 40, U.S.C. (Reference (ad)).

(b) Accept environmental restoration as in-kind consideration under certain leases pursuant to section 2667(c)(1)(A) of Reference (n).

(c) Use money rental proceeds from the lease of military property to pay for environmental restoration of military property or facilities under certain conditions pursuant to section 2667(e)(1)(C) of Reference (n).

(d) Assume the costs related to addressing contamination as part of the cost of a military construction (MILCON) project under some circumstances.

b. CERCLA and NCP. The DoD Component shall protect human health and the environment by exercising those Presidential authorities in sections 9601-9675 of CERCLA that are delegated to the Secretary of Defense pursuant to Reference (q) and in accordance with the NCP. CERCLA and the NCP apply to most DERP activities. Reference (q) delegates the President's CERCLA authority to the Secretary of Defense to respond to releases or threatened releases where either the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of the DoD. Pursuant to References (a) and (c), these Presidential authorities are delegated to the Heads of the DoD Components, subject to the concurrent authority of USD(AT&L) and DUSD(I&E). The DoD is a lead agency with the delegated authority to plan and implement response actions under CERCLA and NCP. These authorities must be exercised consistent with the requirements of section 9620 of CERCLA.

c. RCRA. RCRA sections 6924(u), 6924(v), and 6928(h) require a response action to address certain releases of hazardous wastes or hazardous constituents at installations with a hazardous waste treatment, storage, and disposal (TSD) unit (either with a RCRA permit or interim status). These authorities extend beyond the specific unit used to treat, store, or dispose of hazardous waste to the entire contiguous property under DoD control. EPA uses a network of guidance documents for corrective action. The Federal regulations governing corrective action for permitted facilities are in subparts F and S of part 264 of Reference (s) and, for interim status facilities, subpart F of part 265 of Reference (s). Authorities are also in section 6991b of RCRA and in Part 280 of Reference (s) for corrective action of releases of CERCLA hazardous substances or petroleum from underground storage tanks (USTs). In addition, the imminent and substantial endangerment authority of section 6973 of RCRA allows EPA to require such action as necessary to abate an endangerment.

## 2. DERP ELIGIBILITY

a. Environmental Restoration. Pursuant to section 2701 of Reference (n), DERP includes all environmental restoration activities undertaken by a DoD Component. Environmental restoration pursuant to DERP includes response actions:

(1) Undertaken by a DoD Component within the United States:

(a) At a facility or site owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense.

(b) At a facility or site that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination.

(c) At a facility or site that is not on real property that is or was owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense, provided that contamination attributable to the DoD has migrated from (e.g., by groundwater flow), or military munitions have come to be located on (e.g., munitions landing off an operational range that were not promptly retrieved), a site described in subparagraphs a.(1)(a) or (b) of this section. This can include contamination attributable to DoD whether or not it has commingled with contamination attributable to another source.

(2) That address any of these:

(a) A release of a hazardous substance or pollutant or contaminant.

(b) A release of petroleum, oil, or lubricants (POLs).

1. CERCLA contains petroleum exclusion, so it may not be used to address certain releases of POLs. POL releases may be covered under other applicable authorities consistent with DERP, such as RCRA.

2. Paragraph 6.h. of this enclosure contains further guidance on bulk fuel situations.

(c) A release of a hazardous waste or a hazardous waste constituent.

(d) UXO, DMM, and MC at defense sites, which are categorized as munitions response areas (MRAs) and munitions response sites (MRSs). Defense sites do not include operational ranges, operating storage or manufacturing facilities, or facilities that are used for or were permitted for the treatment or disposal of military munitions.

(e) The correction of other environmental damage that creates an imminent and substantial endangerment to the public health or welfare or to the environment.

(f) The demolition and removal of unsafe buildings and structures.

(g) Lead-based paint and asbestos releases to the environment, including any of these activities:

1. Incidental to other ERA activities.

2. Abating soil-lead hazards surrounding housing constructed between 1960 and 1978, unless the transfer agreement requires the purchaser to perform the abatement activities.

3. Designed to evaluate the need for interim controls, abatement, or no action for bare soil lead concentrations between 400 and 1200 parts per million (excluding children's play areas) based on findings of the lead-based paint inspection, risk assessment, and criteria contained in the DoD and EPA publication (Reference (ae)).

4. Designed to evaluate and abate soil-lead hazards for target housing demolished and redeveloped for residential use following transfer. The terms of the property transfer shall include a requirement for the transferee to evaluate and abate any soil-lead hazards prior to occupancy of any newly constructed dwelling units.

5. Designed to address asbestos in soil when the asbestos is not naturally occurring and is not part of a structure.

(3) Program eligibility as described in paragraph a. of this section does not necessarily indicate that a response will be funded or conducted.

b. Petition for Eligibility. In exceptional cases, a DoD Component may petition the DUSD(I&E) Environmental Management Directorate (DUSD(I&E)/EM) for clarification or approval to consider a specific activity as an eligible environmental restoration activity.

c. Management, Support, and Related Costs. In addition to payments attributable to environmental restoration activities set forth in this section, the ERAs and BRAC Accounts are available to pay the ordinary and necessary costs of DoD Component administration of environmental restoration programs. This includes the costs of preparing and presenting DoD Component claims at TPS, and the costs of evaluating and defending claims against the DoD Components related to the environmental restoration programs and sites at which DoD or DoD Component liability is alleged.

d. Ineligible Activities. DERP environmental restoration actions do not include:

(1) The closure (along with required closure plans and post-closure requirements) of TSD units regulated by a RCRA permit or operating under interim status.

(a) Specific requirements associated with closure pursuant to RCRA and post-closure are found in subpart G of part 264 of Reference (s) (for permitted facilities) and subpart G of part 265 of Reference (s) (for interim status facilities), with related unit-specific requirements (e.g., waste piles, landfills) in part 264 of Reference (s).

(b) Such closure differs from RCRA corrective actions. Closure of a TSD unit is a planned part of the lifecycle of the waste management unit, whereas corrective action responds to past releases of solid or hazardous waste at a permitted or interim-status facility.

(2) Any routine operation, management, or maintenance at an operating DoD facility or site that is not part of an environmental restoration activity, including routine operational range maintenance and sustainment activities.

(3) Activities to terminate a Nuclear Regulatory Commission license pursuant to sections 2011-2297 of Reference (r).

(4) An immediate, short-term response required to limit, address, or mitigate a spill or release (e.g., activities in furtherance of an emergency or spill response plan).

(5) Explosives or munitions emergency responses.

(6) Responses at contractor-owned and -operated facilities, unless they meet the requirements of subparagraph a.(1)(b) or (c) of this section.

(7) Removal of aboveground storage tanks (AST) and associated piping, or USTs and associated piping for tanks at an installation other than a BRAC location that was or is subject to subpart 280.40 of Reference (s) release detection requirements and whose existence has been known to the installation since these requirements were in effect.

(8) Responses to address releases that are solely the result of an act of war. When the DoD Component is considering using the act of war ineligibility provision pursuant to section 9607(b)(2) of CERCLA, the DoD Component shall elevate the issue to the DUSD(I&E) for approval before proceeding with the exclusion. The DUSD(I&E) shall review the DoD Component rationale for the exclusion to ensure consistency with the DERP combat operations exclusion pursuant to section 2710(d)(2) of Reference (n) and the act of war defense.

(9) Responses at State National Guard properties not under the jurisdiction of the Secretary of Defense and not owned by, leased to, or otherwise possessed by the United States at the time of actions that caused the release of hazardous substances or other environmental damage.

(10) Responses at locations outside the United States.

(11) Responses at Defense Plant Corporation and similar properties (e.g., other defense-related Reconstruction Finance Corporation entities such as the Defense Supplies and War Asset Corporations) for which successor agencies and departments other than the DoD are responsible for environmental restoration activities.

(12) Responses to UXO, DMM, or MC on operational ranges, operating storage or manufacturing facilities, or facilities that are used for or were permitted for the treatment or disposal of military munitions.

(13) Responses, including surveys, containment, removal, or disposal, to asbestos and lead-based paint that have not been released to the environment.

(14) Activities that duplicate a response that was completed under another environmental restoration authority (e.g., a CERCLA response when a release was already investigated and addressed under a State authority), unless the response has failed to achieve its environmental restoration objectives. This subparagraph does not prohibit returning to complete the necessary actions.

(15) Activities that are subject to a legal agreement or property transfer document (e.g., deed or environmental services CA) between the DoD (or the United States) and another party that assigns environmental restoration responsibility to a party other than the DoD. The DoD Component should evaluate the document to determine if it is effective and enforceable, and if the other party is viable and therefore able to perform the necessary work under the circumstances at the site. If the DoD Component determines, based on the evaluation, that the document is not effective and enforceable or the other party is unable to perform, then the activities may be eligible if they otherwise meet the requirements of this Manual.

(16) Responses at facilities for which there are no records showing that the property is currently or was formerly owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense at the time of actions leading to contamination, except in accordance with subparagraph a.(1)(c) of this section.

(17) Activities funded by a specific appropriation.

e. Ineligible Payments. Payments that are ineligible for ERA and BRAC account funding include:

(1) Payment of EPA administrative or oversight costs, unless expressly authorized by an act of Congress and funds are appropriated for this purpose. EPA oversight costs do not include payments in support of the Memorandum of Understanding (MOU) Between the EPA and the DoD (Reference (af)), or successor agreements.

(2) Any payment pursuant to a court judgment or compromise settlement.

f. Use of the Judgment Fund. When the requirements of the Judgment Fund established in section 1304 of title 31, U.S.C. (Reference (ag)), are satisfied, the Judgment Fund is available to pay court judgments, awards, and compromise settlements certified for payment by the Financial Management Service, Department of the Treasury, at the request of the Department of Justice (DOJ), arising from a DoD Component liability under environmental law. The DoD Component legal offices shall consult with DGC(E&I) on questions regarding whether ERA, BRAC Accounts, or the Judgment Fund is available for use.

g. DERP at Joint Bases. In general, Deputy Secretary of Defense and DUSD(I&E) Memorandums (References (ah) and (ai)) shall govern the affected DoD Component implementation of Recommendation #146 of the Defense Base Closure and Realignment Commission Report (Reference (aj)). Pursuant to Reference (ai), the supporting and supported DoD Components shall develop a memorandum of agreement for the joint base that clearly specifies the date of transfer on which the supporting DoD Component shall assume

environmental restoration program responsibilities (e.g., data reporting, budgeting, record keeping, financial liability, and environmental restoration contracts); negotiated agreements (e.g., inter-Service, DSMOA CAs, FFAs) and orders in effect; and total obligation authority (TOA) funding from the supported DoD Component. This paragraph does not apply to traditional host-tenant relationships.

h. Host Environmental Restoration Requirements. In general, the installation is responsible for all DoD tenant environmental restoration requirements that are eligible for environmental restoration funding through the DoD Component ERA or BRAC Account. This does not preclude the DoD Component from making separate agreements for specific situations where there is another funding authority.

3. PROGRAM CATEGORIES. This section provides procedures for categorizing environmental restoration activities at DoD sites within DERP.

a. Installation Restoration Program (IRP)

(1) This category is based on the statutory authority in sections 2701(b)(1) and (2) of Reference (n).

(2) The DoD Component shall include sites in the IRP category that require response actions to address releases of:

(a) Hazardous substances and pollutants or contaminants.

(b) POLs (subject to the exception in subparagraph 2.a.(2)(b) of this enclosure).

(c) Hazardous wastes or hazardous waste constituents.

(d) Explosive compounds released to soil, surface water, sediment, or groundwater as a result of ammunition or explosives production or manufacturing at ammunition plants.

(3) The IRP category also includes response activities to address UXO, DMM, or MC posing an explosive, human health, or environmental hazard that are incidental to an existing IRP site.

b. Military Munitions Response Program (MMRP)

(1) This category was established to meet the DERP goals in sections 2710 and 2701(b)(2) of Reference (n).

(2) The DoD Component shall include all MRAs and MRSs that require a munitions response in the MMRP.

(a) UXO, as a class, may be viewed as a CERCLA pollutant or contaminant on other than operational ranges (formerly referred to as “closed, transferred, or transferring ranges”). In addition, if UXO is actively managed (e.g., excavated) for treatment (e.g., destruction) due to its reactive capability, the UXO may then be viewed as a RCRA characteristic hazardous waste, which is automatically also a CERCLA hazardous substance. In accordance with the DoD and EPA Memorandum (Reference (ak)), CERCLA is the DoD-preferred response mechanism for addressing UXO on other than operational ranges.

1. If EPA or a State regulator classifies munitions as RCRA statutory or hazardous waste or as a CERCLA hazardous substance, other than as described in subparagraph b.(2)(a) of this section, at an MRS, the DoD Component shall elevate the issue to the DUSD(I&E) prior to taking further action. The DoD Component shall obtain written approval from the DUSD(I&E) before proceeding with any further response action.

2. If the DoD Component determines that an emergency response is required, the DoD Component may elevate the issue to the DUSD(I&E) after the emergency response.

(b) The DoD Component shall annually update, in the DEP ARC, the DoD MRS inventory developed in accordance with section 2710 of Reference (n). Defense sites include locations that are or were owned by, leased to, or otherwise possessed or used by the DoD, in accordance with section 2710(e) of Reference (n). The phrase “otherwise possessed or used by the Department of Defense” is interpreted to include only regular, intentional, and exclusive action by the DoD; it does not include ad hoc, accidental, or inadvertent deposition of ammunition on property not owned by, leased to, or otherwise possessed by the DoD. Thus, in situations where DoD did not own or lease property that the DoD used as a range, as defined in section 101(e)(1) of Reference (n), or military range, as similarly defined at subpart 266.201 of Reference (s), the DoD possession or use must have been regular, intentional, and exclusive for the military such that it can be reasonably considered that the DoD managed and controlled the property and it was designated and set aside for DoD use. Such property will be considered a former range and thus a defense site.

(c) The DoD Component shall divide MRAs into one or more MRSs. Pursuant to the MRSPP, an MRA shall include any area on a defense site that is known or suspected to contain UXO, DMM, or MC. An MRS shall represent a discrete location within an MRA that is known or suspected to require a munitions response. The DoD Component may subdivide an MRA into one or more MRSs after the MRA is investigated and the historic use and the locations where the munitions-related activities occurred are understood by the DoD Component. The DoD Component shall account for every acre of an MRA, including the acreage that the DoD Component determines to be ineligible for MMRP. The DoD Component may increase the total acreage of an MRA, but may never decrease it.

1. Normally, when an MRA encompasses land and water (e.g., ocean shore and adjacent offshore, lakes, rivers), the DoD Component should divide the MRA into at least two MRSs. The land MRS should include from the low tide line toward shore, and the water MRS should include from the low tide line away from shore to the limits of the MRS.

2. If an MRS is DERP-eligible and encompasses water, the DoD Component's MRS-specific evaluation of explosive hazards and human health risk associated with munitions underwater should consider munitions at depths greater than 120 feet (the maximum depth to which most recreational divers may descend) to have a physical constraint equivalent to a barrier that prevents direct access and to be beyond potential human exposure.

(d) The DoD Component may also include in the MMRP category sites where the response action to address the releases in paragraph a. of this section is incidental to addressing an existing MRS.

c. BD/DR

(1) The BD/DR category is based on the statutory authority in sections 2701(b)(3) of Reference (n).

(2) The DoD Component shall include sites in the BD/DR program category that involve the demolition and removal of unsafe buildings and structures and the removal of unsafe debris that meet the DERP general eligibility requirements in subparagraph 2.a.(2)(f) of this enclosure.

(a) USACE may conduct BD/DR environmental restoration activities at FUDS properties if there is evidence that the DoD left the building or the debris in an unsafe condition at the time of disposal.

(b) The DUSD(I&E) must provide written authorization for the use of DoD Component ERA or BRAC Account funds for BD/DR program environmental restoration activities at installations and BRAC locations. The DoD Component Deputy Assistant Secretary (DAS) for the Environment shall provide a written request for funds to the DUSD(I&E) that includes the detailed reason for BD/DR requirements, a project cost estimate, and a schedule. The DoD Component must receive DUSD(I&E) approval of the request prior to programming funds.

(3) The DoD Component shall not include these activities in the BD/DR program category:

(a) Activities at sites where the hazard is a result of neglect or deliberate or careless acts by an owner or grantee subsequent to DoD control, regardless of whether the deed or disposal document required the owner or grantee to maintain the property improvements.

(b) Activities undertaken by one or more non-DoD private interests (i.e., any entity other than a Federal agency or instrumentality or a State, local, or Indian tribal government) unless the lease, permit, or deed or other title transfer document that conveyed the property from the DoD or General Services Administration (GSA) specifically requires the DoD to restore the property.

(c) Activities at sites where the BD/DR at the property would primarily benefit private interests.



(d) Activities at sites where an owner subsequent to the DoD has received benefit from the Government in lieu of property restoration (e.g., by a payment or offset in the purchase price).

(e) Activities involving partial demolition of a structure (i.e., the demolition must be of the entire building or structure to be allowed).

(f) Activities involving structures or debris that were altered or beneficially used by owners or occupiers subsequent to DoD control.

(g) Activities at sites where the lease, permit, deed, or other transfer document relieves the Government from the obligation of property restoration or imposes on another party a requirement to perform restoration.

#### 4. DoD ENVIRONMENTAL RESTORATION PROGRAM

a. Environmental Restoration Activities. The DoD Component shall adhere to these tenets when conducting environmental restoration activities:

(1) The DoD shall maximize the use of its DERP authority and delegated CERCLA authorities (e.g., as a lead agency), as discussed in section 1 of this enclosure.

(a) The DoD may conduct environmental restoration pursuant to CERCLA; other applicable Federal, State, or local laws addressing environmental restoration (e.g., RCRA corrective action); or a combination thereof.

1. In instances where a regulatory agency seeks to use a framework other than DERP and CERCLA (e.g., sections 300f-300j-26 of Reference (r)), the DoD Component is encouraged to comply with all CERCLA requirements as well, especially with respect to the content of DDs, public involvement, and the maintenance of the administrative record.

2. When a regulatory agency seeks to use an authority for environmental restoration other than CERCLA, RCRA corrective action, or USTs pursuant to section 6991 of RCRA and subpart F of part 280 of Reference (s) (e.g., sections 6934 and 6973 of RCRA, commonly known as RCRA 3013 or 7003 orders, respectively), and the DoD Component is considering such an agreement, the DoD Component shall document the facts related to the situation and its DAS for the Environment or equivalent shall be the authority for the decision. The DoD Component DAS for the Environment shall notify the DUSD(I&E), by memorandum, early in the alternative approach discussions that discussions with the regulatory agency were initiated, and of the outcome when the discussions are complete. An exception to this requirement would be when addressing a petroleum release from an AST or distribution pipeline.

3. When a DoD Component seeks to voluntarily pursue environmental restoration pursuant to an authority other than CERCLA, RCRA corrective action, or UST regulations,

where applicable, (e.g., a DoD Component wants to pursue a RCRA 3013 or 7003 order), the DoD Component DAS for the Environment or equivalent shall submit the facts related to the plan of action to the DUSD(I&E) for approval prior to making the decision to pursue the environmental restoration under such other authority. Once the discussions are complete, the DAS for the Environment or equivalent shall submit the draft agreement to the other DoD Components and the DUSD(I&E), who shall have 5 full working days to review the draft agreement. If a DoD Component or the DUSD(I&E) nonconcur, the DoD Component cannot pursue the alternate approach until the objection is resolved. An exception to this requirement would be when addressing a petroleum release from an AST or distribution pipeline.

(b) When CERCLA and RCRA requirements potentially apply, the DoD Component shall ensure that environmental restoration conducted pursuant to RCRA corrective action or CERCLA response action is in accordance with these principles:

1. Parity between RCRA corrective action and CERCLA programs should be maintained and programs should generally yield similar remedies in similar circumstances pursuant to Office of Solid Waste and Emergency Response (OSWER) Directive 9272.0-22 (Reference (al)).

2. The DoD prefers to follow the CERCLA framework for environmental restoration because of the authority described in subparagraphs 1.a. and b. of this enclosure. Based on its DERP authority, the DoD seeks to implement CERCLA responses that integrate or incorporate RCRA requirements, thereby satisfying its RCRA obligations through CERCLA responses.

3. The DoD Component is encouraged to work with regulators to identify a single regulatory framework to guide the environmental restoration process. This framework should remain consistent throughout the environmental restoration process.

(2) The program objectives of RCRA and CERCLA are the same: protect human health and the environment, include the public in the decision-making process, and attain environmental restoration objectives. For these reasons, the DoD environmental restoration process described in this enclosure uses the terminology in DERP, CERCLA, and NCP. Non-CERCLA phases and processes are identified in this Manual where the process, and therefore the terminology, differs.

(3) The DoD Component shall normally follow the CERCLA remedial action process when conducting munitions responses.

(a) The DoD shall exercise its authority, expertise, and responsibility to protect DoD personnel, the public, and the environment from explosive or chemical agent hazards posed by MEC.

(b) The DoD Component may undertake removal actions in accordance with NCP to address the immediate explosive or chemical agent hazards posed by MEC. Such removal actions are subject to the requirements of subparagraph b.(4) of this section.

(c) In executing munitions responses, the DoD Component shall comply with applicable explosives safety management policy, guidance, and standards (e.g., Reference (w)), and integrate, to the extent practicable, munitions responses with other environmental responses.

(d) Pursuant to Reference (v), the DoD Component shall submit an MRESS, an MRCSS, or both to their explosives safety organizations and then to the DDESB Chair for approval prior to initiating munitions responses that involve intentional physical contact with MEC or CWM (i.e., chemical munitions and chemical agents in other than a munitions configuration); the conduct of ground-disturbing or other intrusive activities in areas known or suspected to contain MEC or CWM; or the potential for an inadvertent release of CWM during a munitions response. These triggers can occur at any phase during a munitions response.

1. In the MRESS and MRCSS, the DoD Component shall document all potential explosive or CWM safety risks to facilities, operations, and people from operations involving DoD military munitions, including munitions responses to MEC or CWM.

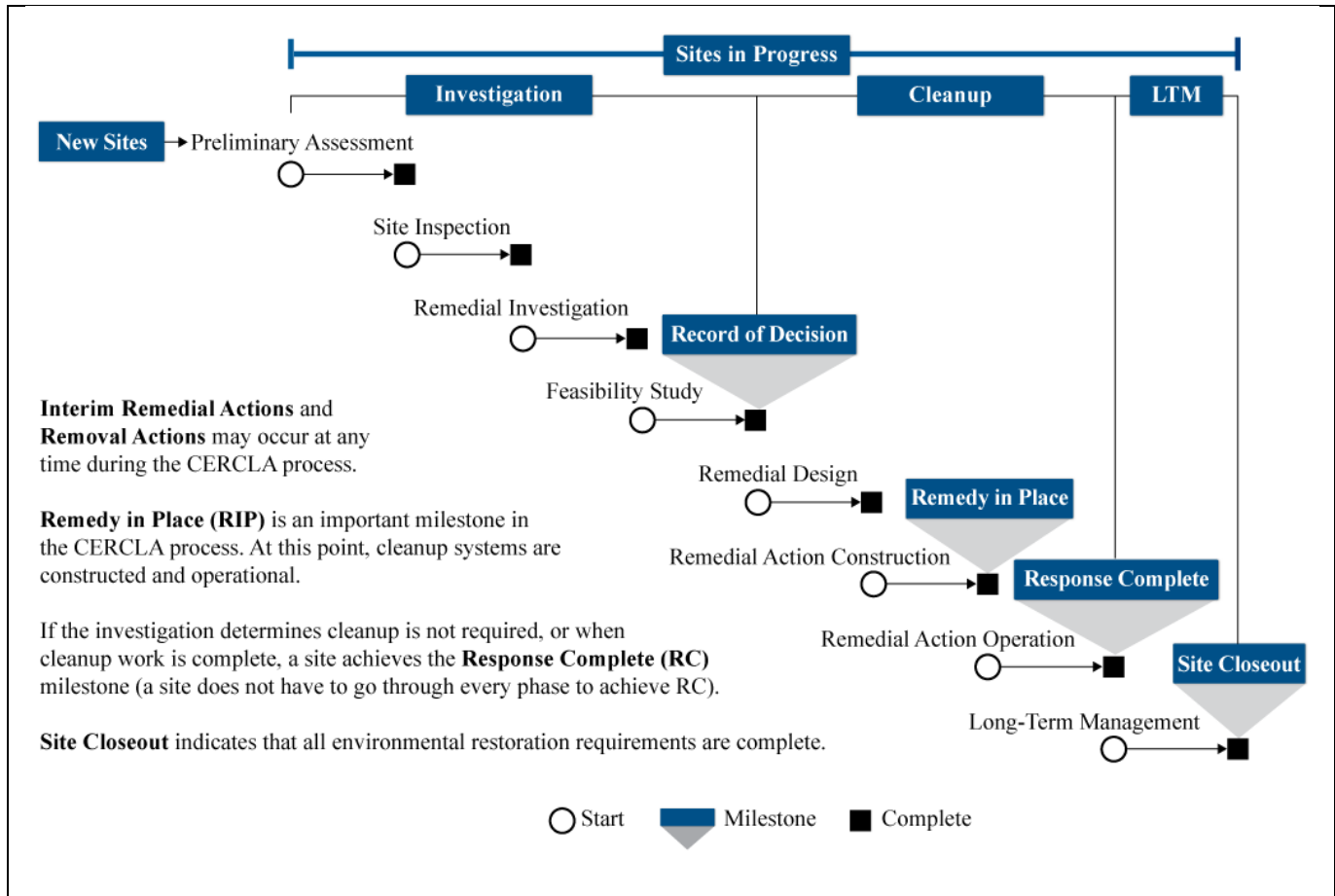
2. MRESS and MRCSS are internal DoD documents and do not require approval by non-DoD agencies. However, the DoD Component should make DDESB-approved MRESSs and MRCSSs available on an information-only basis to interested stakeholders. The DoD Component shall ensure that the MRESS or MRCSS does not contain security-related information that is privileged from release by law.

3. The DoD Component shall submit after action reports (AARs), MRCSSs, and MRESSs to DDESB in accordance with the requirements of Reference (w).

(4) The DoD Component shall follow DoDI 4715.15 (Reference (am)) when collecting, managing, and using environmental data. The DoD Component shall also follow EPA Publication No. EPA-505-B-04-900A/Defense Technical Information Center Publication No. ADA 427785 (Reference (an)), DoD Environmental Data Quality Workgroup Manual (Reference (ao)), and Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health (ADUSD(ESOH)) Memorandum (Reference (ap)), as authorized by Reference (an). For environmental sampling or testing services procured by or on behalf of the DoD, the DoD Component shall follow ADUSD(ESOH) and Director, Defense Procurement and Acquisition Policy Memorandum (Reference (aq)).

b. Environmental Restoration Process. The DoD Component shall use the major environmental restoration process phases and milestones illustrated in the Figure. Subparagraphs 4.b.(1) through (18) provide a narrative description of each phase and milestone. The actual sequence, timing, and scope of response actions shall be tailored to site conditions and funding priorities.

Figure. Environmental Restoration Process Phases and Milestones



(1) Site Discovery. The DoD Component shall perform record searches and visual inspections to determine which candidate sites warrant further investigation.

(2) Preliminary Assessment/Site Inspection (PA/SI). During the PA, the DoD Component shall review existing information and off- or on-site reconnaissance, as appropriate, to determine if a hazardous substance or pollutant or contaminant release requires additional investigation or action. The DoD Component shall augment the data collected in the PA with an on-site investigation during the SI. The SI will typically involve sampling environmental media and collecting and analyzing other data to determine the need for further action.

(a) The DoD Component should practice anomaly avoidance during on-site activities conducted as part of the PA/SIs at MRSs where MEC are known or suspected of being present, unless anomaly avoidance is inappropriate or impractical given site conditions and the objectives of the PA/SI. The DoD Component shall check the DDESB historic site information as part of the PA/SIs at MRSs where MEC are known or suspected of being present.

(b) The DoD Component shall formally document the determinations reached at the conclusion of the PA/SI phases and include that determination in the project file or other permanent record for the site. The three possible outcomes of the PA/SI are:

1. There is no need for action. A no-action determination is appropriate when, based on the historical and physical evidence collected, the DoD Component determines either:

a. No hazardous substances or pollutants or contaminants that are the responsibility of DoD are present at the site.

b. No releases of hazardous substances or pollutants or contaminants that are the responsibility of DoD are present at the site at concentrations that pose a significant threat to public health or the environment.

2. There is a need for a removal action, but not a remedial action. (See subparagraph 4.b.(4) for further information.)

3. There is a need for a remedial investigation and feasibility study (RI/FS).

(c) The DoD Component will provide the PA/SI to the appropriate environmental regulators in accordance with section 2705(a) and (b) of Reference (n).

(3) Prioritization and Sequencing. The DoD Component shall use the RRSE methodology or the MRSPP and other factors (e.g., future mission requirements, community redevelopment needs at BRAC facilities, or the concerns expressed by local residents) to determine the sequence for funding actions at sites. The DoD fundamental premise in site prioritization is “worst first,” meaning the DoD Component shall address sites that pose a relatively greater potential risk to public safety, human health, or the environment before sites posing a lesser risk.

(a) RRSE. The DoD Component shall use the RRSE framework to evaluate the relative risk posed by each IRP site where there are environmental restoration requirements and to prioritize IRP sites. This includes IRP sites at installations, BRAC locations, and FUDS. The RRSE framework provides a DoD-wide approach for evaluating the relative risk to human health and the environment posed by contamination present at IRP sites.

1. The DoD Component’s environmental restoration planning, programming, budgeting, and execution (PPBE) shall support risk reduction as a DERP goal at installations (other than BRAC locations) and FUDS properties in accordance with chapter 13 of Volume 2B of Reference (t).

2. The DoD Component shall:

a. Evaluate contaminants that are present, environmental migration pathways, and receptors to place sites into relative risk categories of “high,” “medium,” or “low.” The DoD Component shall use the RRSE categories and primary site characteristics for determining

sequencing for funding of environmental restoration activities. While the DoD considers the RRSE framework when determining site prioritization, the DoD Component will also consider reuse needs and priorities, as well as property transfer and redevelopment plans, as important factors in sequencing environmental restoration activities at BRAC locations.

b. Ensure that regulators and public stakeholders are offered opportunities to participate in the RRSE process.

c. Implement quality assurance procedures to ensure that evaluations are performed in accordance with the RRSE framework and consistent across all sites.

d. Develop and maintain records on RRSE for each site. At a minimum, the records shall contain references to all information and documents used for the evaluation (e.g., field logs, data from PAs, SIs, RI/FSSs, risk assessments, RRSE worksheets, and database records).

e. Update and provide relative risk data to the DERP information system to support the DEP ARC and environmental management reviews (EMRs), as requested by the DUSD(I&E).

3. The RRSE framework is further described in Reference (x)

(b) MRSPP. The DoD shall use the MRSPP to assign each MRS in its inventory a relative priority for munitions responses.

1. The DoD Component shall:

a. Use the MRSPP to evaluate potential hazards posed by UXO, DMM, and MC at each MRS where a munitions response is required.

b. Use scores developed using the MRSPP to establish priorities for funding and execution of responses at MRSs. The DoD Component should address higher relative risk or hazard sites before lower relative risk or hazard sites. However, as the MRSPP allows, the DoD Component may consider other factors when sequencing MRS for response actions. As required by section 2710 of Reference (n), the DoD Component shall report relative priority scores for all MRSs in the DEP ARC.

c. Use MRS prioritization scores that have met the regulatory and stakeholder involvement requirements of the MRSPP rather than the formerly reported risk assessment code scores.

d. Review and update each MRS priority at least annually to reflect any new information that affects the MRS priority.

2. Additional direction for prioritization and quality assurance of prioritization decisions can be found in ADUSD(ESOH) Memorandum (Reference (ar)) and DUSD(I&E) Primer (Reference (as)).

(4) Removal Actions. Pursuant to subparts 300.410(a) and 300.415(a)(1) of NCP, a removal action requires a removal site evaluation. If a period of at least 6 months is available before the commencement of on-site removal actions, the DoD Component shall complete an engineering evaluation/cost analysis (EE/CA). The DoD Component shall also comply with NCP removal action community involvement requirements (e.g., interviews with local officials, public comment period for EE/CAs).

(a) Generally, the DoD Component should use removal actions as a mechanism for taking prompt action where there is a release, or the threat of a release, of hazardous substances or pollutants or contaminants to the environment. However, because removal actions do not involve the extensive analyses used to select a remedial action, removal actions typically do not provide the protection or permanence afforded by remedial actions. For a removal action to provide a final response at a DERP site, the DoD Component must provide the lead regulatory agency an opportunity to review this decision pursuant to sections 9620(f) and 9621(f) of CERCLA and section 2705(a) and (b) of Reference (n). For a removal action to provide a final response at a DERP site the removal action must either:

1. Address the release or threat of a release to an extent that the site poses no threat to public health or the environment, this determination is appropriately documented, and is completed prior to initiating an RI.

2. Be a part of a response action where the remedial DD specifically addresses the contribution of the removal action to the overall protectiveness and permanence of the remedial action. Such a remedial DD must be signed at the level required by DoD Component policy.

(b) Sites where removal actions do not provide the final response action shall return to the remedial process at the appropriate phase (e.g., RI/FS) and, at a minimum, continue through to a remedial action DD.

(5) RI/FS. The DoD Component shall characterize the site and evaluate various alternatives for remediation of the site during the RI/FS. Once the DoD Component initiates the FS phase, the site shall continue through the selection of the remedial option, the development of a proposed plan, and the signing of the DD. (See subparagraph b.(5)(a)3.h. of this section if the RI determines that the site is protective and no remedial action is selected.) Although different in their focus and goals, typically the DoD Component will perform the RI and FS as concurrent, integrated events.

(a) RI. During the RI, the DoD Component shall collect detailed information to characterize site conditions, determine the nature and extent of the contamination, and evaluate risks to human health and the environment posed by the site conditions by conducting a baseline ecological and human health risk assessment.

1. Subpart 300.430(d) of NCP provides the purpose and requirements for an RI. In characterizing the nature and extent to which a release of a hazardous substance poses a threat to human health or the environment, or to support analysis and design of potential response actions, the DoD Component, as the lead agency, should conduct as appropriate field investigations to assess the physical characteristics of the site; characteristics or classifications of air, soil, surface water, sediment, and groundwater; the general characteristics of the waste; the extent to which the source can be adequately identified and characterized; actual and potential exposure pathways through media and routes; and other factors.

2. In planning the site characterization conducted during an RI at an MRS, the DoD Component shall consider the remedial alternatives that will address the potential explosive and chemical agent hazards associated with MEC and CWM known or suspected of being present. During the RI planning process the DoD Component shall coordinate as appropriate with Federal and State environmental regulators, Indian tribal governments, local officials, and members of the public.

3. The DoD Component shall conduct appropriate human health, explosives safety, and ecological risk assessments to identify the risks to human health, safety (particularly explosives safety), and the environment at DERP sites. An exceedance of maximum contaminant level (MCL) standards in groundwater by itself should not be a substitute for conducting appropriate human health or ecological risk assessments, as a risk assessment is required by subpart 300.430(d)(4) of NCP. The risk assessment should consider complete and potentially complete exposure pathways (e.g., drinking water, irrigation, vapor intrusion, migration to surface water and sediment) and justify the exclusion of any exposure pathway.

a. The DoD Component shall perform risk assessments on a site-specific basis pursuant to subpart 300.430(d)(4) of NCP. (See also EPA Publication No. EPA-540/1-89/002 (Reference (at)) for more information on completing risk assessments.)

b. The DoD Component shall consider current and reasonably anticipated future land uses in risk assessments. The DoD Component does not have to assume that the reasonably anticipated future land use is residential. Exposure scenarios in the risk assessment should be consistent with the reasonable maximum exposure. The DoD Component shall estimate the reasonable maximum exposure for each land use scenario evaluated in the baseline risk assessment, and to the extent possible use exposure factors that are specific to the site (e.g., subsistence farming) and consistent with the installation master plan, rather than generic factors. The DoD Component may also estimate central tendency or other exposures in addition to the reasonable maximum if this information is deemed to be useful for characterizing risk at the site. The DoD Component determinations of reasonably anticipated future land uses and associated exposure scenarios shall consider future mission requirements as part of the analysis. These determinations may require consultation with external stakeholders (e.g., at BRAC locations); however, as a general matter the decision as to future land use scenarios remain with the DoD Component.



c. Risk assessments should not quantify exposure to naturally occurring substances present at concentrations unaffected by current or past site activities. (See also EPA OSWER Directive 9285.7-41 (Reference (au))).

d. The DoD Component may consider EPA presumptive remedies, which streamline risk assessments in appropriate circumstances (e.g., municipal-type landfills).

e. The EPA Integrated Risk Information System (IRIS) generates the preferred toxicity values to be used for estimating risk to human receptors. In the absence of final IRIS toxicity values, the DoD Component may use these sources to estimate risk to human receptors (listed in order of preference): the EPA provisional peer-reviewed toxicity values (available from the EPA Superfund Health Risk Technical Support Center), then other EPA and non-EPA toxicity information sources with priority given to current, peer-reviewed, transparent, and publicly available sources. The source should only be used if DoD risk assessors consider the source to be reliable, based on accepted scientific principles and procedures, and useful to DoD decision makers. The DoD Component should follow the principles in OSWER Directive 9285.7-53 (Reference (av)). Draft toxicity assessments are not appropriate for use until they have been peer-reviewed, the peer-review comments have been addressed in a revised draft, and the revised draft is publicly available. (See also DoDI 4715.18 (Reference (aw)) and the Environmental Council of States/DoD Sustainability Work Group issue paper (Reference (ax)) for recommendations on the identification and selection of toxicity values for chemicals without IRIS values.)

f. The results of the baseline risk assessment generally determine if an unacceptable risk exists. Exceedance of chemical-specific standards that define acceptable risk levels (e.g., MCL, which may be a potential applicable or relevant and appropriate requirement (ARAR)) and match actual or potential (i.e., reasonable maximum) exposures to contamination at a site may be used to identify and screen chemicals of potential concern, may be considered in determining whether an exposure is considered acceptable in the risk assessment, and will generally warrant remediation. For more information on groundwater restoration, see OSWER Directive 9283.1-33 (Reference (ay)).

g. If site conditions present an acceptable risk based on the reasonable maximum exposure for current and future exposures, then a response action generally is not required. The acceptable risk ranges includes the situation where the excess cumulative upper-bound lifetime cancer risk to an individual is between one-in-ten-thousand and one-in-a-million (otherwise known as “ $10^{-4}$ ” and “ $10^{-6}$ ”), or less than one-in-a-million (e.g., one-in-ten million otherwise known as “ $10^{-7}$ ”) and the hazard quotient/hazard index for non-cancer adverse effects is equal to or less than 1. (See subpart 300.430(e)(2)(i)(A)(2) of NCP and OSWER Directive 9355.0-30 (Reference (az)) for more information on acceptable exposure levels.) Another example is that, where an MCL (which may be a potential ARAR) is not exceeded in current or potential drinking water, the exposure through the drinking water pathway would generally be considered acceptable unless there are protectiveness concerns for sensitive populations or exposure to multiple contaminants. The exercise of discretion to consider such standards in determining acceptable risk is not binding precedent on any other site at a given installation, BRAC location, or FUDS property, or at any other installation, BRAC location, or FUDS.

h. If prior to the FS, the DoD Component determines that the site is protective of human health and the environment, the DoD Component is not required to complete an FS or a response action, and will not evaluate ARARs pursuant to subsection 9621(d)(2)(A) of CERCLA. (See subparagraph b.(8)(g) of this section for how to structure the DD in this case.) The DoD Component shall develop DDs once at the RI phase. Section 9621 of CERCLA cleanup standards, including compliance with ARARs, apply only to remedial actions that the lead agency determines should be taken pursuant to sections 9604 and 9606 of CERCLA (Question #3 of OSWER Directive 9234.2-01/FS-A (Reference (ba))). Pursuant to Question #3 of Reference (ba), no-action decisions are permitted only when no remedial action is necessary to reduce, control, or mitigate exposure because the site or portion of the site is already protective of human health and the environment. According to pages 8-2 and 8-5 of EPA Publication No. EPA-540-R-98-031 (Reference (bb)), section 9621 of CERCLA cleanup standard determinations are not required when a remedial action is not being selected.

(b) FS. During the FS, the DoD Component shall develop, screen, and evaluate remedial alternatives in detail; assess the performance of remediation options; and present such information so the decision maker can select a permanent solution that is protective of human health and the environment and attains or waives any ARARs. (See subpart 300.430(e) of NCP for more information on the FS.)

1. In the FS, the DoD Component must consider at least three alternatives: no action, action to remediate the site to a condition that allows unlimited use and unrestricted exposure (UU/UE) condition, and action to remediate the site to a protective condition that requires land use restrictions (i.e., land use controls (LUCs) or exposure controls). The DoD Component shall determine the total number and types of alternatives to be analyzed at each site, considering the scope, characteristics, and complexity of the site in accordance with subpart 300.430(e)(2) of NCP.

2. The DoD Component shall use the nine criteria found in subpart 300.430(e)(9)(iii) of NCP to analyze the remedial alternatives.

3. In accordance with E.O. 13423 (Reference (bc)), the DoD Component shall evaluate remedial alternatives to ensure they are efficient; are environmentally, economically, and fiscally sound; consider sustainable practices; and reduce the footprint of remediation systems on the environment. During remedy evaluation and selection, consideration of optimization and sustainability concepts will improve performance of the remedial action and reduce the remedy footprint. Optimization concepts include development of a conceptual site model, realistic remedial action objectives, performance objectives, and identifying treatment zones and exit strategies.

4. The development and evaluation of alternatives shall reflect the scope and complexity of the remedial action under consideration and the site conditions being addressed. The DoD Component may include an alternatives screening step to select a reasonable number of alternatives for detailed analysis. If a screening step is used, the DoD Component shall use these criteria to guide the development and screening of remedial alternatives: effectiveness,

implementability (technical feasibility), and cost. For screening MMRP sites and IRP sites where munitions are being addressed collaterally, the DoD Component shall address explosives safety under the implementability criterion. During the screening process the DoD Component shall coordinate as appropriate with Federal and State environmental regulators, Indian tribal agencies, local officials, and members of the public. After screening, the DoD Component shall conduct a detailed analysis of the limited number of alternatives that represent viable approaches to remedial action. Where these factors affect a proposed response action, the DoD Component shall explain the limitations on the remedial decision in the DD.

5. The DoD Component shall work with the appropriate support agencies to ensure timely identification of potential ARARs. (See subparts 300.430(d)(3) and 300.430(e)(9)(iii)(B) of NCP for more information on ARARs.)

a. The DoD Component shall consult with legal counsel on the identification and analysis of potential ARARs. Consultation with legal counsel will ensure the correct identification and application of ARARs given the conditions at the site.

b. State regulatory agencies have specific requirements for identifying ARARs. (See subpart 300.400(g) of NCP for these requirements.) The DoD Component shall solicit State input on ARARs as early as possible during the RI/FS.

c. If a remedial alternative under consideration as part of the RI/FS cannot attain an ARAR, the DoD Component may determine whether one or more of the ARAR waivers available pursuant to section 9621(d)(4) of CERCLA and subpart 300.430(f)(1)(ii)(C) of NCP applies.

d. Pursuant to section 9621 of CERCLA and subpart 300.430(e)(2) of NCP, compliance with ARARs does not apply when a remedial action is not necessary because the site is protective.

6. If action is warranted because the site is not protective of human health and the environment, during the FS the DoD Component shall develop remedial goals that establish acceptable exposure levels that are protective of human health and the environment and consider ARARs as well as other factors in accordance with subpart 300.430(e)(2) of NCP. Potential Federal and State ARARs shall be identified during the RI/FS, pursuant to subparts 300.430(b)(9) and (d)(3) of NCP. If remedial action is required, the response must comply with properly identified ARARs unless they are waived in accordance with section 9620(d)(4) of CERCLA and subpart 300.430(f)(1)(ii)(C) of NCP.

7. If remedial action for groundwater is necessary to protect human health or the environment, the DoD Component should consider the NCP expectation that useable ground waters will be returned to their beneficial uses whenever practicable, within a timeframe that is reasonable given the particular circumstances of the site, when establishing remedial action objectives in accordance with subpart 300.430(a)(1)(iii)(F) of NCP.

a. EPA strategy (Reference (bd)), EPA Publication No. EPA-440/6-86-007 (Reference (be)), and the comprehensive State groundwater protection program (also known as the “CSGWPP”), if one exists, should be considered in selecting an appropriate groundwater remediation and the beneficial reuse expectation. (For more information on groundwater classification and restoration, see Reference (ay)). However, the DoD Component shall base all remedy selection decisions on an analysis using the NCP-required remedy-selection criteria.

b. Groundwater remedial alternatives evaluated in the FS should consider appropriate treatment technologies, permanent solutions, containment strategies, LUCs, alternate water supplies, and monitored natural attenuation (MNA). (See OSWER Directive 9200.4-17P (Reference (bf)) for more information on MNA.)

c. Some States have groundwater non-degradation laws that they may propose as an ARAR. The DoD Component shall consult with their legal counsel on the ARAR analysis. (See subparagraph b.(8)(d) of this section for ARAR information that shall be included in the DD.)

8. When restoration to beneficial uses is not practicable, EPA expects to prevent further migration of the plume, prevent exposure to the contaminated groundwater, and evaluate further risk reduction, pursuant to subpart 300.430(a)(1)(iii)(F) of NCP. If ARARs cannot be met, the DD should appropriately justify an ARAR waiver in accordance with subpart 300.430(f)(1)(ii)(C) of NCP.

9. The DoD Component shall use risk management to integrate multiple information sources with other considerations such as economic, technical, or legal concerns to determine the timing of and to select a response approach that is feasible as well as protective of human health and the environment. These information sources include, but are not limited to: the findings of a PA/SI or RI/FS, human health or ecological risk assessments, public health assessments, public and regulatory agency input, identified natural resource injury, and assessments of the capabilities and effectiveness of remediation technologies. (More information on risk management can be found in OSWER Directive 9355.0-69 (Reference (bg)). For information on evaluating the technical impracticability of groundwater restoration, see OSWER Directive 9234.2-25 (Reference (bh)).

10. The DoD Component shall provide the appropriate regulatory agencies an opportunity to review the FS pursuant to section 2705(a) and (b) of Reference (n).

(6) Remedy Selection and Proposed Plan

(a) In the proposed plan, the DoD Component shall summarize the RI/FS, highlighting the key factors that led to identifying the preferred alternative. At a minimum, they shall provide a brief description of the remedial alternatives evaluated in the detailed analysis of remedial alternatives; identify and provide a discussion of the rationale that supports the preferred alternative; provide a summary of any formal comments received from any supporting agencies; and provide justification for any proposed ARAR waiver.

(b) The DoD Component shall make the proposed plan available for public comment, notify the stakeholders of the opportunity to review and comment, provide an opportunity for a stakeholder meeting, and include the proposed plan in the information repository and the administrative record. The DoD Component shall prepare a written summary of all significant comments, criticisms, new or relevant information submitted during the public comment period, and the DoD Component response to each issue. This responsiveness summary shall be made available with the DD for the site.

(7) Interim Remedial Action (IRA). The DoD Component may use IRAs as a partial solution to a complex (e.g., multi-media) contaminant problem or as a remedial action at one site included within a group of sites. The DoD Component shall document IRA decisions in an interim DD. The final proposed plan and DD for those sites shall include a summary of all IRAs conducted. Because an IRA is not a final remedial action for a site, implementing an IRA does not meet the remedy in place (RIP) or RC milestones. Should an IRA become the final action through issuance of a final DD, then the IRA becomes a final remedial action and meets the DoD metric for achieving RIP and, upon completion of the final action, RC.

(8) DD. The DoD Component shall prepare DDs prior to implementing response actions, except for an emergency removal action where the DD must be prepared as soon as possible after the DoD initiates the action.

(a) The DoD Component shall define remedial action objectives in the DD that will be used later in the environmental restoration process to demonstrate and confirm that the DoD has met the obligations established in the DD.

(b) To support the selection of a response action, a DD must include all facts, technical rationale, and site-specific policy determinations considered in the course of identifying the selected response. The DD must contain a level of detail appropriate to the site situation, explain the evaluation criteria used to select the remedy, and be included in the administrative record.

(c) All DDs shall:

1. Identify the applicable legal authority for the response and describe the hazards and unacceptable risks necessitating the response.

2. Describe the evaluation of response alternatives and show how the preferred alternative was selected.

3. State the objectives of the selected response action, including to the maximum extent possible specific environmental restoration objectives (e.g., site-specific and appropriate residual concentrations for each contaminant of concern).

4. Summarize the results of the human health and ecological risk assessments, and document risk exposure assumptions and current and reasonably anticipated future land use descriptions.

5. Describe the response action in general terms and specify the elements of the response action, including describing LUCs that were selected as part of the response.
6. List the entities responsible for implementing and maintaining the selected response action.
7. Document all legal requirements and standards (e.g., ARARs) that apply to the action at the time of signature.
8. Identify regulator and community involvement in the response action.
9. Provide a declaration, approval, and signature by the DoD Component official with delegated authority.

(d) Pursuant to subpart 300.430(f)(5) of NCP, a DD to select a remedial action at a DERP site being addressed under CERCLA (i.e., record of decision (ROD)) shall also:

1. Explain how the nine remedial action evaluation criteria were used to select the remedy.
  2. Describe these statutory requirements as each relates to the scope and objectives of the action:
    - a. How the selected remedy is protective of human health and the environment, explaining how the remedy eliminates, reduces, or controls exposure to human and environmental receptors.
    - b. The Federal and State ARARs that the remedy will attain.
    - c. The Federal and State ARARs that the remedy will not meet, the waiver invoked, and the justification for invoking the waiver.
    - d. How the remedy is cost-effective, explaining how the remedy provides overall effectiveness proportional to its costs.
    - e. How the remedy utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.
    - f. Whether the preference for remedies employing treatment that permanently and significantly reduces the toxicity, mobility, or volume of the hazardous substances or pollutants or contaminants as a principal element is or is not satisfied by the selected remedy. If this preference is not satisfied, the ROD must explain why a remedial action involving such reductions in toxicity, mobility, or volume was not selected.

3. Describe the remediation goals the remedy is expected to achieve, the proposed or final (if available) locations for measurement of performance, and the methodology for measurement of the performance to attain these goals.

4. Discuss and explain any significant changes in the remedy made in response to comments on the proposed plan.

5. Describe any hazardous substances or pollutants or contaminants that will remain at the site above levels allowing for UU/UE following the remedial action, and set the proposed schedule (which begins after the start of on-site remedial action) and administrative requirements for 5-year reviews.

6. Provide a commitment for further analysis and selection of long-term response measures within an appropriate time frame, when appropriate.

7. After a ROD is signed, the DoD Component shall publish a notice of the availability of the ROD in a major local newspaper of general circulation and make it available for public inspection and copying at or near the facility at issue prior to the commencement of any remedial action.

8. Changes to the remedy require modification of the DD and shall be in accordance with subparts 300.430(f)(3) and 300.435(c) of NCP.

9. For more information on RODs, see Reference (bb).

(e) DDs shall be placed in the administrative record.

(f) If, prior to the FS, it is determined that no hazardous substances or pollutants or contaminants are present at the site, or the presence of hazardous substances or pollutants or contaminants are at levels that are protective of human health and the environment, and there is no need to perform an FS because a selection of the no-action alternative is warranted, then none of the statutory determinations required by section 9621 of CERCLA (see subparagraph b.(8)(d)2. of this section) are necessary in the DD.

1. In this instance, the DD must state that no remedial action is necessary to ensure protection of human health and the environment.

2. Section 9621 of CERCLA standards, including compliance with ARARs, apply only to remedial actions that the lead agency determines should be taken pursuant to sections 9604 and 9606 of CERCLA (Question #3 of Reference (ba)). Pursuant to Question #3 of Reference (ba), no action decisions are permitted only when no remedial action is necessary to reduce, control, or mitigate exposure because the site or portion of the site is already protective of human health and the environment. According to pages 8-2 and 8-5 of Reference (bb), the CERCLA cleanup standard determinations in section 9621 are required when a remedial action is not being selected; a no action decision may be appropriate if the baseline risk assessment concludes that the site poses no unacceptable risks.

(9) Remedial Design (RD). During the RD phase, the DoD Component shall develop the design plans and specifications of the selected alternative. The RD may include a LUC implementation plan, if such LUCs are a required element of the selected remedial action.

(10) Remedial Action. Remedial action shall include these phases and milestones:

(a) Remedial Action Work Plan (RAWP). The DoD Component shall document in the RAWP how the remedial action will be staged and implemented during remedial action-construction (RA-C). The DoD Component should consider remediation technologies that are conducted in a sustainable manner; are efficient; and are environmentally, economically, and fiscally sound, in order to reduce the footprint of remediation strategies on the environment.

(b) RA-C. During the RA-C phase, the DoD Component shall construct or implement the selected remedial alternative at the site.

(11) RIP. The RIP milestone is achieved when the remedy has been constructed, is functional, is operating as planned in the RD, and would be expected to meet the remedial action objectives detailed in the DD.

(a) Examples of RIP include a soil vapor extraction system or an in situ chemical treatment system that is installed, operating as designed, and for which performance data indicate the system will achieve remedial action objectives, thus demonstrating proper operation of the remedial system. Because remedial action objectives have not been met, the site cannot be considered RC.

(b) An interim remedial action completion report (I-RACR) is optional and the DoD Component may prepare an I-RACR for long-term remedies where it is anticipated that remedial action objectives will be achieved over a period of time. The I-RACR shall document RIP and demonstrate that all remedial actions taken are expected to achieve remedial action objectives. (For more information, see DoD and EPA joint guidance (Reference (bi)).)

(12) Remedial Action-Operation (RA-O). During the RA-O the DoD Component shall operate, maintain, and monitor actions for the remediation system and site, including MNA, until remedial action objectives in the DD are achieved. The RA-O phase may also include implementation and management or maintenance of LUCs if part of the selected remedial action. The DoD Component shall prepare periodic monitoring reports during this phase to document the performance of remediation systems.

(13) Operating Properly and Successfully. The DoD Component is required to provide certain covenants when transferring real property outside Federal control. Subsection 9620(h) of CERCLA directs that the DoD Component may provide the covenant relating to having taken all remedial action necessary to protect human health and the environment after completing construction and installation of a remedial system, as approved, but before achieving the remedial action objectives set out in the DD, if the remedy has been demonstrated to EPA to be operating properly and successfully. If EPA is satisfied that the remediation system, as



approved, has been constructed and installed and is operating properly and successfully, the DoD Component may provide the covenant allowing transfer of the property before actual achievement of the remedial action objectives.

(14) 5-Year Reviews. During a 5-year review the DoD Component shall evaluate the implementation and performance of a remedy to determine if the remedy continues to meet the requirements specified in the DD and remains protective of human health and the environment. The DoD Component may also use the 5-year review to support the continued evaluation and optimization of remedies.

(a) 5-year reviews are required by subpart 300.430(f)(4)(ii) of NCP if a selected remedial action results in any hazardous substances or pollutants or contaminants remaining at the site above levels that allow for UU/UE. The DoD has found that periodic reviews are good practice to ensure that the remedy remains protective of human health and the environment. Therefore, the DoD may conduct periodic reviews in a manner similar to 5-year reviews under other environmental restoration authorities.

(b) Information on an approach for conducting 5-year reviews and the recommended report structure can be found in OSWER Directive 9355.7-03B (Reference (bj)).

(c) Further information on 5-year reviews is provided in section 5 of this enclosure.

(15) RC. The RC milestone signifies that the DoD Component has met the remedial action objectives for a site, documented the determination, and sought regulatory agreement. RC signifies that DoD has determined at the end of the PA/SI or RI that no additional response action is required; achieved RIP and the required RA-O has achieved the remedial action objectives; or where there is no RA-O phase, then RA-C has achieved the remedial action objectives. Formal documentation for the RC milestone is essential to ensure that completion of remedial action objectives is recognized. Long-term management (LTM) may occur after RC is achieved.

(a) Remedial Action Completion Report (RACR). At a facility on the NPL the DoD Component shall formally document achieving the RC milestone and ensure recognition that the remedial action objectives have been achieved through a RACR. The RACR formally documents the achievement of remedial action objectives and actions at a specific site, group of sites, or an entire installation, BRAC location, or FUDS property, as specified in the DD, and documents that the remedy remains protective. In addition, the RACR provides the basis for full or partial deletion from the NPL. Detailed information on recommended ways to demonstrate remedial action completion with the RACR is available in Reference (bi).

1. Prior to claiming achievement of the RC milestone at NPL sites, EPA review and approval of a RACR is required.

2. If the DoD Component is unable to obtain regulatory agreement for any reason, the DoD Component shall document that it sought regulatory agreement on RC determinations. The DoD Component will begin the process to obtain and document regulatory

agreement once a site achieves RC. Documentation of regulatory agreement includes written agreement in the form of a dated, official letter or email from the regulator of appropriate authority reflecting agreement and official sanction of the RC determination. If, within one year of making a reasonable number of attempts to obtain regulatory agreement, the DoD Component is unsuccessful, the DoD Component shall develop a memorandum for the record (MFR) to document the RC determination. The MFR shall include the steps the DoD Component followed to seek regulatory agreement; the reason(s) why the DoD Component believes it did not obtain agreement; the reason(s) why the DoD Component believes the site is at RC and any necessary documentation to support the RC determination; and the signature by a DoD official of appropriate authority and signature date. The MFR should be detailed enough to enable a reasonable person to draw the same conclusion about the RC determination as the individual who makes the original determination. The DoD Component should provide a copy of the MFR to the appropriate regulator(s) for reference. OSD encourages the DoD Component to seek written regulatory support for their RC determinations made prior to issuance of this Manual.

(b) Non-NPL sites. The DoD Component shall formally document achieving the RC milestone at non-NPL sites. The DoD Component shall seek written regulatory agreement for its RC determinations at non-NPL sites following the same process outlined in subparagraph b.(15)(a)2. of this section.

(c) AAR. Pursuant to subsection V7.E4.7 of Reference (w), upon completing a munitions response involving a DDESB-approved MRESS or MRCSS, the DoD Component performing the munitions response shall prepare an AAR and distribute this report to each office that reviewed the MRESS or MRCSS for use in file closeout. In addition to the requirements of subsection V7.E4.7 of Reference (w), the AAR shall document the location where information regarding this response has been archived.

(16) LTM. Following achievement of the RC milestone, the DoD Component may be required to monitor long-term protectiveness of the remedy during the LTM phase. The LTM phase is required when the remedial action objectives do not allow unrestricted use of the property. Actions during this phase may involve monitoring site conditions, implementing and managing LUCs, and performing 5-year reviews.

(17) LUCs. LUCs may be required while conducting environmental restoration investigations, during implementation of remedial actions, or after remedial actions are complete.

(a) The DoD Component shall put appropriate mechanisms in place to manage LUCs for which they are responsible. They shall incorporate LUCs into the land use management systems for installations or shall seek incorporation of LUCs into the land use management processes of the locality for FUDS or property being transferred out of Federal control. The DoD Component should use a layering strategy or system of mutually reinforcing controls to implement LUCs effectively.

#### 1. LUCs Associated with Environmental Restoration Activities for Active Installations

a. Implementing LUCs. The installation shall develop an implementation plan for LUCs. The implementation plan is an internal management tool that explains how LUCs will be established and documented and defines who will be responsible for maintaining and managing them. The implementation plan should be incorporated into the installation master plan or its equivalent. At a minimum, the implementation plan shall describe the location of the land subject to the LUC; explain the LUC and generally allowed uses; specify the duration of the LUC; reference the location of the pertinent LUC records; provide for modifications to the LUC as site conditions change; and specify the frequency and requirements of LUC inspections and indicate whether any of these inspections are part of the process for other environmental programs.

b. Documenting LUCs. The DoD Component must use their own land use planning and management systems (e.g., maps, installation master plan) to record LUCs on installations. The installation shall retain LUC records.

c. Maintaining LUCs. These options may be used separately or collectively to ensure that LUCs remain effective: ensure the LUC goes through the installation's site approval process; identify restricted use areas with permanent markers; incorporate LUC inspections into existing inspections; evaluate and verify LUCs as part of the environmental audit and self-inspection program and 5-year reviews; provide training to personnel regarding the physical location of LUCs and how to care for property subject to LUCs; and periodically distribute internal notices to other affected offices to remind them of the existence of LUCs.

d. Addressing LUC Non-Compliance. If a LUC is being violated, installation officials shall take steps to ensure that the integrity of the LUC is restored, including any required notifications and corrective actions.

e. Notices. The DoD has no authority to grant a real property interest for an environmental LUC (e.g., an environmental covenant) on an installation, but may record an environmental notice provided for under State law if the notice does not constitute a real property interest. The DoD Component shall consult their real property legal counsel before agreeing to any such notice.

## 2. LUCs Associated with Environmental Restoration Activities on Property Being Transferred Out of Federal Control

a. Pre-Transfer. The DoD Component should assess whether LUCs are necessary to provide a finding of suitability to transfer (FOST) or a functionally equivalent document to the property disposal agent to ensure that the restrictions are clearly described in property conveyance documents. (For more information on the FOST, see DoDM 4165.66 (Reference (bk)).) To most effectively implement the LUCs, the DoD Component should work with the appropriate local and State agencies and the potential transferee early in the disposal process. The DoD Component shall clearly delineate the responsibilities of all parties involved in implementing the LUCs. (See subparagraph b.(17)(a)1.a. of this section for procedures to implement LUCs.)

b. At Transfer. The DoD Component shall ensure that LUCs are made applicable to future owners of the property. If the LUC will be in the form of a real property interest (e.g., an environmental covenant), the DoD Component shall ensure that the LUC runs with the land and the real property transfer documents require the new owner to grant the necessary real property interest to secure and make effective the LUC. If the DoD Component currently maintains a recordable environmental notice for the property, it shall ensure that the real property transfer documents require the new owner either to issue, in accordance with State law, a new recorded environmental notice or an environmental covenant to replace the notice. LUCs that do not constitute a recordable real property interest will be made applicable to the new owner in the real property transfer documents. All such provisions shall be coordinated with the environmental office to provide they accurately conform to requirements of any applicable RODs, orders, or agreements. Mandatory provisions addressing future Federal access to the property are contained in DoDI 4165.72 (Reference (b)).

c. Post-Transfer. Primary responsibility for management and maintenance of LUCs rests with the property owner, unless the environmental restoration is continuing and the DoD Component has retained responsibility for it. If the new owner fails to properly manage and maintain the LUCs and cannot be compelled to do so, the DoD Component may need to take actions to maintain the protectiveness of the remedy. Consequently, the DoD Component has a very strong interest in ensuring the new owner properly manages and maintains the LUCs. To address any future concerns about a property, the DoD Component should retain the FOST, environmental baseline survey, purchase agreement, deed, and any documents that specify LUC management responsibilities.

(b) The DoD Components shall each maintain a central database of properties restricted by LUCs to manage their responsibilities. The database should include relevant information on the property, types of LUCs established, any DoD land use monitoring and management responsibilities, and the location of real estate records.

(c) A LUC shall be modified or terminated through the same process used to establish it. Such modification or termination will be the responsibility of the DoD Component for installations and the responsibility of the property owner for transferred property.

(d) In the case of FUDS, the DoD may, with the consent of the property owner, establish LUCs affecting the owner's property. The DoD may be responsible for drafting, reviewing, or monitoring property-related LUCs, depending on the circumstances and DoD authority.

(18) Site Closeout (SC). The DoD Component shall closeout a site when it has completed required response actions at an environmental restoration site, and it will not expend additional environmental restoration funds at the site (i.e., no further LTM, including LUC, is required).

## 5. FIVE-YEAR REVIEWS

### a. Requirements

(1) Pursuant to subpart 300.430(f)(4)(ii) of NCP, the DoD Component shall conduct a 5-year review if a selected remedial action results in any hazardous substances or pollutants or contaminants remaining at the site above levels that allow for UU/UE.

(2) If a remedial action results in UU/UE but will not achieve RC within 5 years, the DoD Component will conduct 5-year reviews during the RA-O phase, as appropriate.

(3) By law, 5-year reviews are not required for removal actions.

(4) If a response is being conducted under an environmental restoration authority other than CERCLA, a 5-year review is not required. The DoD Component is encouraged to evaluate if a site-specific remedy would benefit from an appropriate periodic review.

### b. Conducting 5-Year Reviews

(1) The DoD Component shall complete the first review no later than 5 years after the initiation of the remedial action (e.g., onsite remedial construction field work, or DD signature if LUC is the remedy) for the first IRP or MMRP site at the installation, BRAC location, or FUDS property requiring a 5-year review.

(2) The DoD Component may conduct 5-year reviews on a site-specific or an installation-wide basis (or a BRAC location- or FUDS property-wide basis), with new sites being incorporated into the next scheduled 5-year review. Both installation-wide and site-specific reviews should address only those sites for which remedial actions have been taken that result in hazardous substances or pollutants or contaminants remaining at the site above levels allowing for UU/UE.

(3) During the 5-year review, the DoD Component shall evaluate the effect of any newly promulgated or modified ARARs that are based on the protection of human health and the environment, and changes in toxicity values or exposure assumptions affecting the protectiveness of the remedy originally selected in the DD, in accordance with subpart 300.430(f)(1)(ii)(B)(1) of NCP. During the 5-year review, the DoD Component may also review the validity of land use and exposure assumptions on a site-specific basis.

(4) The DoD Component shall sign the completed 5-year review report and submit it to EPA and the State regulatory agency, as appropriate, for informational purposes. If the 5-year review identifies that changes are needed in the response action, the 5-year review shall be provided to EPA and the State regulatory agency, as appropriate, for review and comment. For DoD facilities on the NPL, the FFA may contain additional requirements concerning regulatory review.

(5) The DoD Component shall retain a copy of the 5-year review report in the project records and should include a copy in the information repository.

(6) If 5-year reviews are required at an installation or property planned for transfer outside of DoD control, the DoD Component remains responsible for 5-year reviews after transfer. However, the DoD Component may impose procedures in the transfer documentation requiring the property owner to assist in these requirements.

(7) If the 5-year review identifies a need for a significant change in a remedy, the DoD Component shall prepare further documentation, such as an Explanation of Significant Differences or ROD amendment, consistent with subpart 300.435 of NCP.

(8) Reviews will continue until UU/UE conditions are achieved at all DoD environmental restoration sites located on the property (i.e., restrictions imposed in the DD can be terminated or released). If UU/UE is achieved for any site on the property, that site no longer needs to be included in the 5-year review. Such a determination will be documented in the 5-year review for that particular site.

## 6. OTHER ENVIRONMENTAL RESTORATION MANAGEMENT CONSIDERATIONS

### a. Construction At or Near DERP Sites on DoD Installations

(1) Constructing facilities on or near a contaminated site may have ramifications affecting human health and the environment. Accordingly, the DoD Component should work with the appropriate organizations (e.g., installation planners) to consider a compatible land use based on current site conditions and the selected or projected remedial action alternatives.

(2) DERP is a prioritized environmental restoration program based on risk to health, including safety, and the environment. To the extent that a construction project (MILCON or non-MILCON) generates actions to address contamination, or a need to change DERP-generated timing actions to address contamination, the costs of such actions are not ERA-eligible and shall be funded as part of the construction project. This includes the handling, mitigation, and disposal or other disposition of contamination discovered before or during the construction activity.

(3) Any construction, development, conversion, or extension of a structure, or installation of equipment, in support of a response for a DERP project shall not be considered MILCON, pursuant to section 2707 of Reference (n).

### b. Transfer of Wastes to Off-Site Facilities

(1) The DoD Component shall conduct CERCLA response actions that involve the off-site transfer of wastes consistent with section 9621 of CERCLA and subpart 300.440 of the NCP. Off-site waste transfer requirements are:

(a) The off-site facility must be in compliance with applicable laws (e.g., RCRA, sections 2601-2695d of title 15, U.S.C. (Reference (bm))).

(b) Any off-site land disposal unit that will receive the CERCLA waste must not be releasing hazardous substances.

(c) Any releases from other units at the off-site land disposal facility shall be controlled.

(2) Prior to transferring remediation waste that is hazardous waste for management at an off-site facility, the DoD Component shall either:

(a) Contact the EPA regional on-site coordinator to ensure that the proposed facility can accept the remediation wastes and is in good standing with the regulatory community.

(b) Confirm, through the appropriate environmental office, that the proposed facility is permitted to receive the waste containing the constituents listed in the waste profile.

(3) After transferring remediation waste that is hazardous waste for management at an off-site facility, the DoD Component shall retain:

(a) Documentation of waste acceptance from the facility.

(b) The appropriate environmental office or regulator determination of facility acceptability.

(4) Off-site disposal for RCRA sites should consider the requirements in paragraph 6.b.(1) through (3) of this enclosure.

c. Vapor Intrusion

(1) The DoD Component shall evaluate whether contamination in the soil or groundwater poses a potential for unacceptable risk from vapor intrusion into overlying or nearby existing structures when all of these conditions are met:

(a) The source of contamination is located on one of these property types:

1. DoD property or a DoD release has migrated off-site from a DoD property.

2. BRAC property or a DoD release has migrated off-site from a BRAC property.

3. FUDS property or a DoD release has migrated off a FUDS property, provided that in either situation it is a DoD-exclusive source of contamination. If volatile chemicals being addressed by FUDS are commingled with volatile releases from other potentially responsible parties (PRPs), the DoD will not pursue unilateral investigation.

4. Former DoD property that has been transferred (and does not qualify as a FUDS) provided that the DoD is the exclusive source of contamination and the evaluation is the responsibility of the DoD.

(b) The source of contamination meets DERP eligibility criteria.

(c) The source of contamination includes releases to soil or groundwater from volatile organic compounds and semi-volatile organic compounds.

(d) The site includes geologic conditions (e.g., dry, coarse-grained soils) known or reasonably expected to be conducive to vapor intrusion.

(e) Current or reasonably anticipated structure use, operating conditions, and site-specific conditions provide evidence that there is or may be a potential complete vapor intrusion exposure pathway.

(2) The DoD Component shall evaluate the potential for a complete vapor intrusion pathway into overlying or nearby existing structures during the SI or RI.

(a) The DoD Component may use mathematical models as screening tools to indicate whether site conditions warrant further investigation.

(b) If the results of a mathematical model indicate a potential for unacceptable risk, the DoD Component should conduct a site-specific risk assessment.

1. Sufficient groundwater, soil, and soil gas data should be collected to validate the potential for subsurface volatile contamination to migrate into structures.

2. Toxicity information used in human health risk assessments must be current, publicly available, and have gone through the peer review process.

3. The ambient (outdoor) and indoor air should be sampled to determine whether a significant site-specific risk exists. Indoor air contaminants must be identified and differentiated as indoor air emissions unrelated to vapor intrusion such as consumer or household products (e.g., cleaners, gasoline, solvents), internal structure activities (e.g., dry cleaning), operational activities of other parties or background concentrations, or other structure conditions.

(3) The DoD Component shall conduct appropriate response actions for a vapor intrusion pathway in existing structures when the potential for vapor intrusion of volatile chemicals exists and a site-specific risk assessment indicates an unacceptable risk to human health due to a release to the environment that is the responsibility of the DoD and not the responsibility of any other party.

(a) The DoD Component should consider all reasonable alternatives when selecting response actions, including the use of ventilation systems, either active or passive, or other mitigation measures.



(b) The DoD Component shall base remedial goals for response actions on CERCLA and NCP and shall not set levels below background levels for the contaminants of concern.

(4) When there are no existing structures overlying or near a potential vapor intrusion pathway, the DoD Component should document the potential vapor intrusion risk.

(a) The DoD Component shall provide notice of potential vapor intrusion risks to non-DoD property owners in writing and, as appropriate, include such notice in DDs and transfer documents.

(b) The transferee should address the potential for vapor intrusion in future structures at its own expense by adding appropriate mitigating measures during construction or by demonstrating that there is no unacceptable risk under applicable law. DDs and transfer documents shall reflect such obligations, as appropriate.

(c) For DoD property, the DoD Component should address the potential for vapor intrusion in future structures in the design phase of the building construction and any necessary and appropriate mitigation measures shall be included as part of the construction cost.

(5) DUSD(I&E) Handbook (Reference (bn)) provides additional information on technical approaches associated with evaluating the vapor intrusion pathway and the development and interpretation of vapor intrusion investigations.

d. Green and Sustainable Remediation

(1) Green and sustainable remediation expands on DoD's current environmental practices and employs strategies for environmental restoration that use natural resources and energy efficiently, reduce negative impacts on the environment, minimize or eliminate pollution at its source, and reduce waste to the greatest extent possible. Green and sustainable remediation uses strategies that consider all environmental effects of remedy implementation and operation and incorporates options to maximize the overall environmental benefit of environmental response actions.

(2) Opportunities to increase sustainability considerations throughout all phases of remediation (i.e., site investigation, remedy evaluation, design, construction, operation, monitoring, and site closeout) may exist, regardless of the selected remedy.

(3) The DoD Component should consider and implement green and sustainable remediation opportunities in current and future remedial activities when feasible. The DoD Component should not under most circumstances re-open DDs and agreements that may be in place or under negotiation with environmental regulators.

(4) Pursuant to E.O. 13514 (Reference (bo)), the DoD Component shall, where practicable based on economic and social benefits and costs, ensure green and sustainable remediation practices by increasing energy efficiency; conserving and protecting water resources

through efficiency, reuse, and storm water management; eliminating waste, recycling, and preventing pollution; leveraging agency acquisitions to foster markets for sustainable technologies and environmentally preferable materials, products, and services; and strengthening the vitality and livability of the communities in which Federal facilities are located.

e. Remedy Optimization

(1) The DoD Component shall maximize DERP effectiveness and minimize the DERP financial liabilities and environmental footprint.

(2) The DoD Component shall, to the maximum extent possible, identify specific environmental restoration objectives (e.g., site-specific and appropriate residual concentrations for each contaminant of concern) in a DD that selects the response action. Changes to the remedy requiring modification of the DD shall be in accordance with subparts 300.430(f)(3)(ii) and 300.435(c)(2) of NCP.

(3) Optimization of remedial alternatives begins during the analysis of remedial alternatives when the DoD Component considers means to evaluate and improve the remedy over time. The optimization process continues through the operating life of the remedy to the end state condition that was defined as the final environmental restoration objectives. The DoD Component shall develop and implement ways to continue to evaluate the response action throughout the remedy lifecycle. Such an evaluation can be a part of required reviews, such as the statutorily required 5-year review. During this continued evaluation of implemented remedies the DoD Component may examine factors including:

- (a) Means for optimizing the overall performance and effectiveness of the remedy.
- (b) Means for controlling the operational, maintenance, and monitoring cost(s) of remedies in the RA-O phase.
- (c) Assessing the adequacy and concurrence of the exit strategy (i.e., environmental restoration objectives and RAWP) with the DD.
- (d) Assessing if the environmental restoration objectives specified in the DD are consistent with planned and future resource use.
- (e) Assessing if the environmental restoration objectives specified in the DD are achieved and whether the response action is still needed.
- (f) Determining if a different remediation goal is needed or if an alternative technology or approach is more appropriate.

f. Research and Development

(1) The DoD Component should support research and development aimed at increasing the overall effectiveness of response activities.

(2) As technology evolves and becomes available, the DoD Component should evaluate and consider appropriately inserting that technology into the alternatives evaluation process.

g. FFAs

(1) If a DoD facility is listed on the NPL, an FFA is used to satisfy the requirements of an interagency agreement (IAG) pursuant to section 9620(e)(4) of CERCLA. The FFA outlines the working relationship between the DoD, EPA, and, as appropriate, the affected State, and clearly defines mutual obligations during the environmental restoration process at a DoD NPL facility. The FFA shall:

(a) Ensure that the DoD Component investigates environmental releases at a site and take appropriate remedial actions to protect public health, welfare, and the environment.

(b) Establish a procedural framework and schedule for developing, implementing, and monitoring remedial actions at the site in accordance with CERCLA, RCRA, and applicable State laws.

(c) Facilitate cooperation, exchange of information, and participation of the DoD Component, EPA, and appropriate State agencies in such actions, and outline the working relationship between the parties, especially in terms of review processes, time frames, and dispute resolution.

(2) For DoD facilities on the NPL without a signed FFA:

(a) EPA and Department of the Army agreement (Reference (bp)) shall be used at DoD NPL facilities as the standard to satisfy the requirement for an IAG pursuant to section 9620(e)(2) of CERCLA.

(b) The DoD Component shall collaborate with EPA regions and States to negotiate using Reference (bp) as the standard and making only site-specific changes.

(c) States will determine whether they will sign an FFA. If the State chooses to sign, the State may propose edits. The DoD Component staff shall respond to proposed edits from the EPA region and State.

(d) To the extent that a DoD Component, EPA region, or State seeks to negotiate variations beyond the site-specific language of any provision of Reference (bp), that DoD Component DAS for the Environment shall immediately inform the DUSD(I&E). The DoD Component staff shall respond to proposed edits from the EPA region and the State.

(e) The DoD Component shall submit all proposed FFAs for a 72-hour review (3 working days) to the DUSD(I&E), DGC(E&I), and the other DoD Components with DERP responsibilities prior to signature by the DoD Component. As part of this review, the DoD Component shall identify any changes or additions to Reference (bp). The DUSD(I&E),

DGC(E&I), and the other DoD Components with DERP responsibilities shall review the proposed FFA. If any one of these organizations nonconcur, the DoD Component cannot sign the FFA until the nonconcurrency is resolved. A nonconcurrency based solely on disagreement with Reference (bp) language shall not be accepted, unless otherwise directed by the DUSD(I&E). The DUSD(I&E) shall lead the nonconcurrency resolution discussion. To support the review, the DoD Component shall identify:

1. If the State is participating.
2. Any changes requested by the State and mutually negotiated by EPA, the State, and the DoD into the FFA.
3. Any mutually negotiated provisions that vary from the standard language in Reference (bp).

(3) The DoD Component shall submit revisions or deviations to a pre-existing IAG (i.e., FFA Amendments) for 72-hour review prior to signature. The DoD Component can only sign such amendments if no objections are raised during this review period.

h. Management of Bulk Petroleum Products – Spills and Leaks

(1) Guidance regarding responses to address spills and leaks from DLA/Defense Energy Support Center (DLA Energy)-managed bulk storage facilities and transportation systems is contained in section L.3.e.(2) of chapter 8 of Volume II of DoDM 4140.25 (Reference (bq)).

(a) DLA Energy will fund the identification, assessment, and remediation costs of fuel spills and leaks from DLA Energy-managed bulk storage facilities and transportation systems that occur after October 1, 1992. The DoD Component shall identify these sites and estimated costs using procedures outlined in subsection L.7. of Reference (bq). POL contaminated sites resulting from activities conducted prior to October 1, 1992, will remain a DoD Component-funded responsibility.

(b) To the extent that the DoD Components mutually agree to deviate from subparagraph h.(1)(a) of this section, they may enter into an MOU for a specific location or facility addressing how to divide responsibilities for environmental restoration. When an MOU is signed, it supersedes the guidance provided in Reference (bq). Absent an MOU, Reference (bq) governs.

(c) If the contamination is otherwise DERP-eligible, the responsible DoD Component must use the ERA or the BRAC Account to fund the response action. For current releases, working capital is used for response actions to address spills associated with operational fuel distribution via DLA infrastructure transporting DLA Energy fuel.

(2) Paragraph h. of this section is not applicable to FUDS.

i. Division of DoD Component Responsibility for Litigation Defense at TPS

(1) DLA. The DLA Disposition Services assumes responsibility for the original DoD generator if the generator correctly identified the hazardous substance and documentation establishes that the hazardous substance was processed through DLA Disposition Services. DLA will assume responsibility for defending and resolving the DoD potential liability at the TPS. If DERP funding eligibility requirements are otherwise met in accordance with section 2 of this enclosure, DLA can use funds from the Defense-Wide ERA for these efforts. (See also subparagraphs 2.c. and f. of this enclosure.)

(2) Other DoD Component. If the hazardous substance at the TPS was not processed through DLA Disposition Services, the DoD Component that is the original generator is responsible for defending and resolving its potential liability at the TPS. If DERP funding eligibility requirements are otherwise met in accordance with section 2 of this enclosure, the DoD Component may use its ERA or BRAC Account for these defense efforts. (See also subparagraphs 2.c. and f. of this enclosure.)

(3) Multiple DoD Components. If more than one DoD Component is involved at the TPS and those DoD Components cannot agree on the division of responsibility, the DUSD(I&E) will evaluate the claim to determine which DoD Component will take the lead. Generally, the DoD Component determined to have the most potential liability will take the lead. The DUSD(I&E) can assign a lead, if necessary.

## 7. ENVIRONMENTAL RESTORATION DOCUMENTATION

a. Records Management. The DoD Component shall collect, retain, classify, and store environmental restoration records in accordance with applicable statutes, regulations, and their respective DoD Component records management directives. The DoD Component shall collect environmental restoration records as they are generated or received in the course of the remediation process.

### (1) Administrative Record

#### (a) Environmental Restoration in Accordance With CERCLA

1. Pursuant to section 9613(k) of CERCLA and subparts 300.800-300.825 of NCP, the DoD Component shall establish and maintain administrative records and make them available to the public at or near the facility at issue. The administrative record contains the documents that form the basis for the selection of a CERCLA response action.

2. Pursuant to sections 9613(k) and (j)(1) of CERCLA, the DoD Component shall use the administrative record as a vehicle for public participation in selecting a response action and the sole source of documentation for defending the selection of a response action. Pursuant to section 9613(j)(1) of CERCLA, judicial review of any issue concerning the adequacy of any response action is limited to the contents of the administrative record. It is critical that the DoD Component takes great care in compiling the administrative record.

3. The administrative record shall include, but is not limited to:

a. Documents and materials containing information that form the basis for the DoD Component's selection of response actions. Confidential or privileged documents must be kept in a separate portion of the administrative record not accessible to the public. Whenever feasible, the DoD Component shall summarize or rephrase (with legal counsel assistance) those portions of the privileged document that pertain to the selection of the response action so that a summary or rephrased version can be included in the publicly accessible portion of the administrative record.

b. Documents made available to the public, as required by CERCLA, for removal or remedial site assessments or actions, as well as public comments received on these documents.

c. Data gathered to characterize an MRS (including geophysical sensor data that is digitally recorded and geo-referenced) accompanied by a clear audit trail of pertinent analyses and resulting decisions. Where collecting digitally recorded, geo-referenced, geophysical sensor data is impractical or unwarranted, the installation shall forward a memorandum documenting the determination to the DoD Component Secretariat; the memorandum shall be included in the administrative record and the information repository.

4. The administrative record shall be retained for a minimum of 50 years after the last site achieves RC, pursuant to section 9603(d)(2) of CERCLA. A DoD Component may choose to retain the administrative record for a longer period of time at its discretion.

(b) Environmental Restoration in Accordance With Non-CERCLA Statutory Authorities

1. Retention of administrative or similar records may be required by a permit, enforcement order, or agreement for environmental restoration under non-CERCLA statutory authorities. In these instances, the DoD Component shall follow the permit, enforcement order, or agreement requirements for administrative or similar records.

2. In cases where an administrative or similar record is not required by a permit, enforcement order, or agreement, installations, BRAC locations, and FUDS shall establish a record of environmental restoration activities conducted pursuant to legal authorities other than CERCLA. The record of environmental actions shall include, but is not limited to, the items listed in subparagraph a.(1)(a)3. of this section.

(2) Information Repository as Part of Community Relations During Response Actions. Pursuant to CERCLA and NCP, the DoD Component shall create an information repository that contains items made available to the public.

(a) Section 9617 of CERCLA requires that certain remedy-selection documents be made available to the public. Pursuant to section 9617(d) of CERCLA the DoD Component

shall make each item developed, received, published, or made available to the public available for public inspection or copying at or near the facility at issue.

(b) Subparts 300.415(n)(3)(iii) and 300.430(c)(2)(iii) of NCP further provide for community relations during removal and remedial activities, and require that a copy of items made available to the public be contained in at least one local information repository at or near the location of the response action. Examples of documentation contained in the information repository are documents in the administrative record and all public documents associated with the Restoration Advisory Board (RAB) or a technical review committee (TRC). The DoD Component shall inform the public of the establishment of the information repository and provide notice of availability of the administrative record file for public review.

(c) An information repository and other public repository may also be required by a permit, enforcement agreement, or other requirements for environmental restoration pursuant to non-CERCLA statutory authorities.

(d) The DoD Component shall ensure that documentation for publication in information or other public repository does not contain procurement-sensitive, personal, security-related, or any other information that is privileged from release by law.

(3) Archival Records. DoD records management programs must comply with the National Archives and Records Administration Act of 1984 as implemented by both the National Archives and Records Administration (parts 1220-1238 of title 36, CFR (Reference (br))) and GSA (part 102-193 of title 41, CFR (Reference (bs))). Archival records of the administrative record may be retained electronically.

(4) Electronic Files. In addition to hard copies of the required records pursuant to subparagraph a.(1) of this section, the DoD Component may provide electronic files as courtesy copies of any of the official records discussed in this section. If any discrepancies are found, the record copies, which are maintained by the DoD Component, are the official records. If the DoD Component is providing an electronic file at or near the site, the DoD Component must ensure that the public has access to the appropriate technology to review the electronic file at that location.

(5) Site Audit File and Environmental Liability Documentation. Requirements for environmental liability documentation in the site audit file are at subparagraph 13.a.(7) and paragraphs 14.f. and g. of this enclosure.

b. National Environmental Policy Act

(1) Sections 4321-4370f of Reference (r) (also known and hereinafter referred to as “The National Environmental Policy Act of 1969” (NEPA)) do not apply to those response actions that are fully compliant with CERCLA and NCP. Therefore, the DoD Component is not required to comply with NEPA requirements when undertaking a response action that complies with DERP, CERCLA, and NCP. The DoD Component shall achieve the overall NEPA mandate for a fully-

informed and well-considered environmental decision that includes consideration of alternatives and environmental impacts through adherence to the DERP, CERCLA, and NCP processes.

(2) Similarly and based on project experience, the RCRA corrective action process should already integrate formal consideration of diverse environmental factors and meaningful opportunities for public involvement such that a separate NEPA evaluation is not required. The DoD Component, at the installation-, BRAC location-, or FUDS property-level, shall consult with legal counsel on questions concerning the application of NEPA to environmental restoration programs.

## 8. SITE INVENTORY AND PROGRAM MANAGEMENT

a. Site Inventory. The DoD Component shall use a site inventory approach to DERP program management that:

(1) Maintains an inventory of all DERP-eligible sites as a permanent record. (See section 2 of this enclosure for DERP eligibility.) Identified sites shall remain in the DERP information system regardless of their status or how they are managed.

(2) Assigns a unique environmental site identifier to each DERP site in accordance with the DERP information system data definitions. This identifier shall remain consistent throughout the life of the program and shall be used to track the site in the DERP information system.

(3) Tracks actions at individual sites, determines the current status of each site, tracks fiscal information related to the site over time, and produces consistent and logical reports.

(4) Ensures that the site inventory material is complete and fully and formally documented in a manner that will withstand an audit.

b. DERP Information System. The DERP information system is a tool for implementing the required site inventory management approach. The DERP information system serves as the collective DoD Component database and provides site and programmatic information used by the DUSD(I&E) for program oversight, policy development, and reporting. Data in this system shall be consistent with data in the DERP PPBE process. (See paragraph 13.b. of this enclosure for information on the DERP PPBE process.)

(1) The DUSD(I&E) will issue specific data reporting requirements in an annual data call for inclusion into the DERP information system; however, additional information from the DoD Component may be requested as necessary. The DoD Component shall provide accurate and complete data to the DUSD(I&E).

(2) Comprehensive technical data templates are available on the Internet at <http://www.denix.osd.mil>. Additional data elements are added and removed as circumstances warrant.



c. Reporting and Documentation. The DoD Component shall use a variety of tools to monitor and communicate environmental restoration requirements and activities, project schedules, and costs.

(1) Reporting Requirements. The DoD Component shall report data to the DUSD(I&E) throughout each fiscal year (FY) to support the development of financial statements, budgetary exhibits, the DEP ARC, and management reviews.

(a) Financial Statements. The Office of Management and Budget (OMB) requires the DoD to prepare agency-wide auditable financial statements. The environmental restoration section of the DoD financial statement is Note 14, "Environmental Liabilities and Disposal Liabilities," as established in Volume 6B, Chapter 10 of Reference (t). (See section 14 of this enclosure on environmental liabilities.) The DoD Component financial management offices shall submit relevant auditable financial statement data to the USD(C)/CFO to support the Note 14 environmental restoration line items of the financial statement in accordance with the Office of the USD(C)/CFO (OUSD(C)/CFO) schedule. Typically, the OUSD(C)/CFO schedule specifies that the DoD Component submits their data annually in October and quarterly in January, April, and July.

(b) Program Financial Management. To support program financial management, the DoD Component shall submit environmental restoration financial data to the DERP information system 2 weeks prior to submission of their auditable financial statement and notes.

1. Environmental restoration financial data include all elements of DoD Component bottom-up cost estimates by site and phase.

2. While the DoD Component does not submit updated cost estimates to the DUSD(I&E) for the quarterly updates, they must retain records to support quarterly updates.

3. Environmental restoration financial data shall contain appropriate identifiers that designate the DoD Component, installation, site, phase, and cost elements of a specific cost, as well as designate whether the cost is associated with an installation, BRAC location, or FUDS.

(c) DEP ARC. The DUSD(I&E)/EM shall prepare the DEP ARC for each FY, fulfilling its congressional reporting requirements pursuant to chapter 160 of Reference (n).

1. The DEP ARC summarizes DoD environmental activities and accomplishments over the past FY and includes discussions on past budget appropriations and anticipated funding requests.

2. The DUSD(I&E) shall issue specific reporting requirements for the DEP ARC to the DoD Components in August of each year.

3. The DEP ARC is due to Congress no later than 45 days after the date on which the President submits to the Congress the budget for an FY. The DEP ARC is typically published in March.

(d) EMRs. The DUSD(I&E)/EM shall conduct semi-annual program reviews of DoD Component performance in execution of their environmental restoration program responsibilities. EMRs are one element in OSD oversight of the environmental restoration program. The DUSD(I&E)/EM shall issue specific requirements for each EMR.

(2) Management Action Plan (MAP). The installation MAP, including equivalent documents, is a key management tool for the environmental restoration program at an installation. The DoD uses the MAP to identify and monitor environmental restoration statutory requirements and schedules, and to serve as the basis for an installation's input to overall program planning, budget development, and execution decisions. The MAP describes an integrated, coordinated approach for conducting environmental restoration activities required at an installation. The MAP shall address all required actions, by year, through the estimated completion.

(a) The DoD Component shall prepare a MAP for each installation where environmental restoration activities have not yet been completed. The MAP shall also address sites that are geographically separate from the installation but are DERP-administered.

(b) The MAP is intended to be a living management tool and shall be kept current by all installations and FUDS with environmental restoration requirements. MAPs shall be updated annually until all sites at an installation or FUDS property have achieved the RIP milestone. If all sites at an installation or FUDS property are in the RA-O or LTM phases, the DoD Component may update the MAP in conjunction with 5-year reviews. Stakeholders, such as regulators and RABs, shall be given an opportunity to be involved in updating the MAP. The MAP may be made available through information repositories as well as other means, such as posting on installation websites, where applicable.

(c) In addition to providing a general overview of the installation (e.g., location, installation history, types of operations at the installation, general environmental setting), the MAP should contain for each site:

1. The environmental restoration history (i.e., a list and description of all response actions taken).
2. Current site status based on the data in the DERP information system.
3. RRSE status and category or an MRS priority and status.
4. A list of contaminants of concern, UXO, DMM, and MC known or suspected to be present.
5. An outline of the technical approach being taken for site characterization and removal or remedial activities. The strategy to reach the remedial action objectives should be identified.
6. Prior-year funding and current-year funding.

7. Estimates of future costs by FY for the remainder of the response process. (The requirements that appear in the POM and budget submittals shall match those that are identified and sequenced in the MAP).

8. Past and future milestones, goals, and schedules.

9. The proposed transfer or land reuse strategy for the property.

10. The proposed program exit strategy.

(3) State-Wide Management Action Plan (SMAP). The Secretary of the Army may develop SMAPs within a given State to provide EPA, the States, and Indian tribes an opportunity to develop a common vision for environmental restoration at all FUDS within a State. SMAPs provide a mechanism for meaningful regulator involvement in the planning and prioritization process of FUDS projects. The SMAP clarifies the roles and responsibilities of Federal, State, and Indian tribal representatives; defines the key decision points in the environmental restoration process; and outlines a strategy for property closeout. The SMAP does not substitute for the MAP required for each FUDS.

## 9. DERP GOALS AND METRICS

a. Pursuant to section 2701(b) of Reference (n), the DERP statutory goals are to:

(1) Identify, investigate, conduct research and development into, and cleanup contamination from CERCLA hazardous substances or pollutants or contaminants.

(2) Correct other environmental damage (such as detection and disposal of UXO) that creates an imminent and substantial endangerment to the public health or welfare or to the environment.

(3) Demolish and remove unsafe DoD buildings and structures.

b. The DoD has established these program objectives based on the statutory goals:

(1) Reduce risk to human health and the environment through implementation of effective, legally compliant, and cost-effective response actions.

(2) Make property at BRAC locations safe and environmentally suitable for transfer.

(3) Have final remedies in place and complete response actions expeditiously.

(4) Fulfill other established milestones to demonstrate progress toward meeting program goals.

c. The Table shows the goals and metrics for sites in the DERP information system.

Table. Goals and Metrics for Sites in the DERP Information System

PROGRAM CATEGORY	LOCATION	GOALS AND METRICS
IRP	Active Installations	<p>Achieve a lower relative risk category or achieve the RIP or RC milestone at:</p> <ul style="list-style-type: none"> <li>• 100 percent of high relative risk sites by the end of FY 2007</li> <li>• 100 percent of medium relative risk sites by the end of FY 2011</li> <li>• 100 percent of low relative risk sites by the end of FY 2014</li> <li>• 100 percent of sites by the end of FY 2014</li> </ul> <p>Achieve the RC milestone at:</p> <ul style="list-style-type: none"> <li>• 90 percent of all sites by the end of FY 2018</li> <li>• 95 percent of all sites by the end of FY 2021</li> </ul>
	Installations in BRAC Rounds I-IV	<ul style="list-style-type: none"> <li>• Achieve 100 percent of sites at the RIP or RC milestone by the end of FY 2015</li> <li>• Achieve 100 percent of installations at the RIP or RC milestone by FY 2015</li> </ul>
	Installations in BRAC Round V	<ul style="list-style-type: none"> <li>• Achieve 100 percent of sites at the RIP or RC milestone by the end of FY 2014</li> <li>• Achieve 100 percent of installations at the RIP or RC milestone by FY 2014</li> </ul>
	Properties in the FUDS Program	<p>Achieve a lower relative risk category or achieve the RIP or RC milestone at:</p> <ul style="list-style-type: none"> <li>• 100 percent of high relative risk sites by the end of FY 2007</li> <li>• 100 percent of medium relative risk sites by the end of FY 2011</li> <li>• 100 percent of low relative risk sites by the end of FY 2020</li> <li>• 100 percent of FUDS properties by the end of FY 2020</li> </ul> <p>Achieve the RC milestone at:</p> <ul style="list-style-type: none"> <li>• 90 percent of all sites by the end of FY 2018</li> <li>• 95 percent of all sites by the end of FY 2021</li> </ul>
MMRP	Active Installations	<ul style="list-style-type: none"> <li>• Completion of the PA at each MRS by September 30, 2007</li> <li>• Completion of the SI at each MRS by September 30, 2010</li> <li>• Achieve the RIP or RC milestone at each MRS by September 30, 2020</li> </ul> <p>Achieve the RC milestone at:</p> <ul style="list-style-type: none"> <li>• 90 percent of all sites by the end of FY 2018</li> <li>• 95 percent of all sites by the end of FY 2021</li> </ul>
	Installations in BRAC Rounds I-IV	<ul style="list-style-type: none"> <li>• Achieve the RIP or RC milestone at each MRS by the end of FY 2009</li> </ul>
	Installations in BRAC Round V	<ul style="list-style-type: none"> <li>• Achieve the RIP or RC milestone at each MRS by the end of FY 2017</li> </ul>
	Properties in the FUDS Program	<ul style="list-style-type: none"> <li>• Completion of the PA at each MRS by September 30, 2007</li> <li>• Completion of the SI at each MRS by September 30, 2010</li> <li>• Achieve the RIP or RC milestone by a date to be determined</li> </ul>
BD/DR	All	At this time, the DUSD(I&E) has not set goals for BD/DR Program Category.

10. ENVIRONMENTAL RESTORATION ISSUES IN PROPERTY TRANSFER. This section applies to situations where real property is being transferred to Federal entities and non-Federal entities pursuant to the following authorities: non-BRAC, BRAC, encroachment exchange, MILCON exchange, land swap, and special legislation.

a. Overview

(1) The DoD Component engaging in property transfers shall identify and document all related environmental activities.

(2) Guidance on environmental restoration activities at installations closed or realigned pursuant to the legacy BRAC or the 2005 BRAC round (see section 11 of this enclosure) is provided at part 174 of Reference (y) and in Reference (bk).

(3) Real property where explosive or chemical agent hazards are known or suspected to be present shall not be transferred out of DoD control (other than to the Coast Guard) until:

(a) Appropriate protective measures have been taken to ensure the recipient of the property is fully informed of the actual and potential hazards relating to the presence or possible presence of explosive or chemical agent hazards, and restrictions or conditions have been placed on the use of the property to avoid harm to users due to the presence of explosive or chemical agent hazards. (See References (w) and (bl) for additional information.)

(b) The transferring DoD Component has submitted the requirements described in subparagraph a.(3)(a) of this section to the DDESB Chair, and the DDESB Chair has approved those requirements. (See References (w) and (bl) for additional information.)

b. Real Property Transfer Within the Federal Government

(1) Transfers Within the DoD

(a) A DoD Component that accepts real property from another DoD Component shall assume environmental restoration actions for that property. The responsibility will be transferred at the time real property accountability transfers.

(b) The transferring DoD Component shall transfer the environmental restoration activity funding TOA that has been planned for the property in the Future Years Defense Plan (FYDP). The TOA will be transferred at the time of real property accountability transfer.

(c) Any proposed transfer of DoD real property not conforming to the procedures in subparagraphs b.(1)(a) and (b) of this section must have written approval from the DUSD(I&E) in advance of the transfer.

(d) Property is otherwise transferred in “as is” condition.

(2) Transfers With Other Federal Agencies

(a) In accordance with section C5.3.1.3. of Reference (bk), a Federal agency outside of the DoD receiving BRAC real property must clearly accept, in writing, continuing responsibility for management and funding for environmental restoration after the transfer. For any non-BRAC real property that transfers to another Federal agency outside of the DoD, the DoD Component should clearly assign to the other Federal agency, in writing, continuing responsibility for management and funding for environmental restoration after the transfer.

(b) The transferring DoD Component shall provide the gaining agency with an environmental condition of property (ECP) report, or other similar report, and a history of restoration actions taken prior to the transfer of the real property.

c. Transfers to Non-Federal Entities

(1) Documentation Requirements. Prior to transferring or leasing to a non-Federal entity any property on which a hazardous substance was stored for 1 year or more or known to have been released or disposed of, the DoD Component must include the notices described in part 373 of Reference (s) in the transfer documents. These notices are based on documentation such as an ECP report. In addition, under certain circumstances, the DoD Component may also be required to complete a finding of suitability to lease (FOSL) or a finding of suitability for early transfer (FOSET). These notices and findings form the basis for meeting the documentation requirements of section 9620(h) of CERCLA. The DoD also requires a FOST for other situations not covered by a FOSL or FOSET. (For more information, see Reference (bl).)

(2) Disclosure. The DoD Component shall provide the various notices, descriptions, assurances, access rights, warranties, and covenants required by section 9620(h) of CERCLA in accordance with the specific direction given in Reference (bl).

(3) Restoration Activities Arising After Transfer. Environmental restoration activities arising after transfer shall be performed pursuant to the notices, descriptions, assurances, access rights, warranties, and covenants provided in accordance with CERCLA, Reference (bl), and any post-transfer agreement discussed in subparagraph c.(5) of this section.

(a) Unless otherwise specified in the transfer documents, the DoD Component that disposed of the property may conduct additional environmental restoration consistent with the land use or exposure scenarios upon which the remedy was based if it is determined that the DoD-selected remedy is no longer protective of human health and the environment because:

1. The remedy wholly or partially failed.
2. A LUC has proven to be ineffective.
3. Subsequent to the transfer, there is a discovery of additional contamination attributable to DoD activities.
4. Applicable statutory or regulatory requirements have changed and must be applied to the property.

(b) The DoD Component should not conduct additional environmental restoration activities using the ERA or BRAC Accounts to facilitate a new use or to modify a deed restriction or other applicable LUC, if the selected remedy remains protective of human health and the environment.

(4) Transferring Real Property to Non-Federal Entities Before Completing All Necessary Environmental Restoration Actions (Early Transfer Authority (ETA)). Guidance on ETA at installations closed or realigned pursuant to the legacy BRAC or the BRAC 2005 round is provided in References (bk) and (bl). General information on ETA of DoD property is provided in Office of the DUSD(I&E) Guide (Reference (bt)), while explosives safety requirements are provided in Reference (u).

(5) Post-Transfer Environmental Restoration Agreements With Owners of Transferred Property. Agreements for an owner of transferred property to perform environmental restoration services are allowed pursuant to section 2701(d) of Reference (n). Such agreements apply to the owners of property subject to a covenant provided by the United States in accordance with the requirements of sections 9620(h)(3) and (4) of CERCLA, as long as the services procured will be performed on property subject to the requirements of section 9620(h) of CERCLA.

(a) A DoD Component may enter into such an agreement with any non-Federal recipient only when the property is transferred by deed containing covenants pursuant to sections 9620(h)(3) or (4) of CERCLA.

(b) Generally, the agreement will provide the process for:

1. The property owner to notify the DoD Component that contamination attributable to DoD activities not previously identified has been discovered on the property.
2. The DoD Component to identify what response actions, if any, are necessary.
3. The DoD Component to coordinate response actions with appropriate regulatory authorities.
4. The DoD Component to estimate which costs of its response actions are eligible for funding under the agreement.
5. The property owner to receive timely funding from the DoD Component for response actions.
6. The property owner to engage in response actions with the timely prior agreement of the DoD Component.

## 11. BRAC

### a. Overview

(1) The BRAC process is used by the DoD to reorganize its forces and infrastructure to more efficiently and effectively support its forces, increase operational readiness, and facilitate new ways of doing business. Legacy BRAC locations and BRAC 2005 locations are managed according to different program goals and metrics.

(2) Installations closed under either the legacy or BRAC 2005 rounds should follow the procedures in part 174 of Reference (y), Reference (bk), and this Manual.

(3) MAPs for BRAC locations may also consider integrating reuse priorities into the planning and implementation of environmental restoration activities.

b. BRAC Funding

(1) There are two BRAC Accounts, one for legacy BRAC and one for BRAC 2005, established in Reference (o). The DoD Component shall use the BRAC Accounts to fund environmental activities at BRAC locations that are being or have been closed, including environmental restoration, environmental compliance, planning, and management and support. The funding requested in these categories is aggregated into what is commonly called the “BRAC environmental line.” The DoD Component may also use the funding listed in subparagraph 1.a.(5) of this enclosure to fund environmental activities at BRAC locations.

(2) The DoD Component ERA shall be used to fund environmental restoration activities at BRAC locations that are being realigned.

(a) An installation that receives activities from another installation as a result of a closure or realignment is not itself a “realigned installation” for funding purposes. While it is legally permissible to use either the DoD Component ERA or BRAC Account to fund environmental restoration required by the closure or realignment at a receiving installation, the DoD Component should use their ERA to fund environmental restoration activities at a receiving installation, even when necessitated by the closure or realignment of another installation.

(b) The DoD Component BRAC Account shall be used when environmental restoration is being expedited solely by the realignment (e.g., the responses are being conducted to accommodate a BRAC-related schedule, not pursuant to CERCLA requirements).

(c) If the property on a realigned installation is not being transferred from the DoD Component, funds for environmental restoration are to be requested in, and appropriated to, the DoD Component’s ERA.



c. Legacy BRAC

(1) EPA MOU for BRAC Locations. Reference (af) establishes responsibilities and funding for EPA assistance and support in accelerating environmental restoration decisions in support of property transfer at selected DoD legacy BRAC locations.

(2) BRAC Cleanup Teams (BCT). Legacy BRAC installations that plan to transfer property may establish BCTs. The BCT shall carry out certain DERP requirements at the installation and is charged with identifying and implementing techniques to improve the efficiency and pace of the response process.

(a) As part of the BCT, the installation commander or the responsible DoD Component authority may appoint a base environmental coordinator (BEC) who shall execute all DERP requirements in support of base closure.

(b) BCTs will consist of the BEC, a State environmental regulatory agency representative, and an EPA representative.

(c) Prior to adjourning, the BCT must formally notify the RAB and local redevelopment authority of the BCT adjournment. This notification shall include a complete list of points of contact (POCs) for environmental restoration and support of reuse responsibilities within the DoD and other Federal, State, Indian tribal, or local agencies.

(3) Closing Out BRAC Environmental Restoration Activities. The DoD Component shall plan and complete environmental restoration activities at BRAC locations in accordance with the goals and metrics listed in paragraph 9.c. of this enclosure. As environmental restoration activities are completed and the environmental restoration workload decreases, BCTs may be scaled back or adjourned, rather than continuing as a dedicated full-time team. When evaluating if scaling back or adjourning the BCT is appropriate, the DoD Component shall consider if:

(a) A reuse has been determined for all properties identified for transfer.

(b) The last remedial action for the installation is in place.

(c) All required demonstrations that remedial systems are operating properly and successfully are complete.

d. BRAC 2005. The DoD shall report annually on environmental data related to BRAC 2005 actions, as required by section 2907 of Reference (n). This data includes a list of known environmental remediation issues at each BRAC 2005 location, including the acreage affected by these issues; an estimate of the cost to complete (CTC) for environmental restoration; and the plans and timelines to address such environmental restoration. The DoD collects this data in the DERP information system.

## 12. FUDS

a. The FUDS program shall address those locations described in section 2701(c) of Reference (n). The DoD shall conduct response actions at FUDS pursuant to chapter 160 of Reference (n) and consistent with the guidance in this Manual.

b. FUDS properties shall be eligible for FUDS-ERA funding if the property transfer from the DoD and the release occurred prior to October 17, 1986. FUDS properties may include properties under the real property accountability of a non-DoD Federal agency if an environmental restoration commitment was made in the use permit pursuant to section 2691 of Reference (n). FUDS project eligibility will be impacted by the terms and conditions of the property transfer. For FUDS properties that have been returned to non-DoD Federal agencies, the Secretary of the Army shall evaluate environmental restoration commitments made pursuant to section 2691 of Reference (n) prior to recommending a project.

c. The Secretary of the Army shall conduct environmental restoration at FUDS properties consistent with the statutory and regulatory requirements discussed in sections 4 and 5 of this enclosure. The DoD should not conduct further environmental restoration activities based on changes in land use initiated by current property owners that are inconsistent with the previous remediation conducted by the DoD or LUCs attached to the property.

d. Pursuant to paragraph 4.c. of Enclosure 2, the Secretary of the Army shall issue and update specific guidance for management and execution of environmental restoration activities at FUDS properties in accordance with this Manual (e.g., sections 4 and 5 of Enclosure 3) and consistent with the responsibilities in paragraph 1.m. and subparagraph 4.c.(3) of Enclosure 2.

e. The Secretary of the Army, as the lead agent for the FUDS program, shall identify to the DUSD(I&E) the funding required for the FUDS program; maintain an inventory of all FUDS, track activities at FUDS, and report on program progress; determine eligibility of property and projects for FUDS program action and conduct environmental restoration activities at eligible properties on behalf of the DoD Components; implement policy and guidance; and review program execution. The DUSD(I&E) retains oversight, including policy, planning, programming, and budgeting responsibility for FUDS.

f. The Secretary of the Army uses no DoD action indicated (NDAI) determinations to assist in demonstrating its accomplishment of DERP goals and objectives to the DoD. NDAI determinations will be re-examined upon request of a State, Indian tribe, EPA, or other stakeholder, and may be re-examined by mutual consent or upon presentation of new or additional information concerning potential DoD contamination.

## 13. COST ESTIMATING AND FINANCIAL MANAGEMENT

### a. Estimating Program Costs and CTC

(1) The DoD Component shall develop CTC estimates to support the DERP PPBE process, DERP environmental liability estimates, and the DEP ARC. While there may be some differences in the reporting requirements (e.g., display of program management costs, application of inflation indexes through the FYDP), the DoD Component shall reconcile the reported values to a baseline CTC estimate. The DoD Component shall report to the DUSD(I&E) and the DoD Component financial management office total program costs (i.e., total environmental restoration costs) that include prior-year amounts, both liquidated and unliquidated, and CTC estimates for future costs. DERP is managed on a site-level basis; therefore, these costs must be tracked to the site-level.

(2) The DoD Component shall develop CTC estimates that:

(a) Include all IRP, MMRP, and BD/DR sites identified in the DERP information system and all non-site-specific DERP costs. Site-level estimates must be reported by environmental restoration phase.

(b) Include all DERP-eligible requirements defined in section 2, regardless of funding source (i.e., DoD Component ERA or BRAC Account) or availability of funds.

(c) Are developed using un-inflated dollars based on the current FY. However, the estimates shall be adjusted by inflation indexes through the FYDP for PPBE submissions and DEP ARC reporting.

(d) Reflect the environmental restoration strategy and sequence as presented in the MAP or equivalent, and are based on current land use or reasonably anticipated future land use.

(e) Are based on existing remediation technologies.

(f) Are point estimates.

1. To develop a point estimate when multiple potential environmental restoration scenarios exist, the DoD Component should use a hierarchical approach based on either the expected or most likely environmental restoration scenario using site-specific regulatory requirements and current technology; or, if one value within a range is not better than another, the DoD Component should use the minimum amount in the cost range.

2. The DoD Component should explain any uncertainties associated with the reported value in a narrative that accompanies the estimate in the site audit file (discussed in subparagraph 13.a.(7) and paragraphs 14.f. and g. of this enclosure).

(g) Are revised annually to reflect changes in scope, regulation, or technology; updated information or other significant changes at the site; and inflation. If there are no such changes, estimates may be brought to the current-year estimate using a price escalation factor.

1. For CTC changes at a site of 10 percent or greater from the prior year estimate (minimum \$25,000 change, excluding inflation and work completed), the DoD Component must

fully document the reasons for the change and revise the site MAP accordingly. Reasons for such a change may include level-of-effort, new regulatory requirements, and delays in implementation due to events such as legal action, natural disaster, or adverse weather. An example of a reason is: The estimated FUDS liability for site Z is \$XXX and \$YYY for FY 2009 and 2010, respectively. The current estimate is a significant increase (14.75 percent) from the liability reported in the most recent prior FY. Major factors contributing to the change include a change in the technology from A to B (\$XX) and imposition of more stringent monitoring requirements (\$YY).

2. The DoD Component shall forward the revised estimate and reasons for CTC changes to the DoD Component financial management office and the DUSD(I&E) via the OSD DERP information system for incorporation into the DoD Component and DoD-wide annual financial statements, and the DEP ARC.

3. In the event of a 10 percent or greater fluctuation in the liability from year to year, the DoD Component must disclose the nature of the change on the financial statement.

(3) The DoD Component shall base CTC estimates on site-specific studies or experience with similar sites, remediations, and conditions. A cost estimate produced from a site-specific study is generally the most reliable estimate because it is based on a thorough investigation and sampling of the environmental conditions at the site. Methodologies used to develop the cost estimate include engineering estimates, application of historical costs at similar sites, application of estimates from comparable sites, or cost-modeling tools.

(a) If site-specific data are not available to estimate complete remediation costs, or if technology does not exist to address contamination at the site, the DoD Component will report the estimated cost for initial containment and studies to develop the environmental restoration plan for the site. CTC estimates must be based on sufficient site-specific data to substantiate any assumptions.

(b) If the site has similar characteristics to other sites (e.g., similar factors that drive the cost estimate such as constituent types and concentrations, media, and technology), and documentation exists to support the similarities, the DoD Component may base cost estimates on historical costs at similar sites.

(c) The DoD Component shall ensure that any computer models used to calculate CTC estimates are verified, validated, and accredited pursuant to DoDI 5000.61 (Reference (bu)). The DoD Component shall establish verification, validation, and accreditation (VV&A) policies and procedures for any cost-modeling tools used to develop CTC estimates pursuant to DUSD(I&E) publication (Reference (bv)). Each DoD Component is responsible for resource planning, review, and coordination of policies and procedures, documentation of VV&A implementation and results, and interfacing with the appropriate VV&A agents.

(4) The DoD Component responsible for managing and funding DERP sites shall report CTC estimates and current year obligations for each of their sites in the DERP information system. Costs that can be assigned or allocated to a site CTC estimate include:

(a) Costs associated with phases of the environmental restoration process from initial studies through the RC milestone and LTM, including obtaining regulatory reviews.

(b) Site-specific costs such as compensation and benefits of Government personnel; contractor support; machinery and equipment; utilities (if separately billed); security and surveillance; fees for permits, licenses, and approvals; costs for deletion from the NPL; and site-specific overhead and management costs.

(c) Overhead and management costs for personnel at all levels of the organization (e.g., installation, intermediate command or regional, and headquarters) who will devote significant time directly to environmental restoration efforts at specific sites. These costs may include compensation and benefits for Government and contractor management staff and the associated costs, such as travel, training, and supplies.

(5) The DoD Component shall add indirect and overhead and management costs that cannot be attributed to specific sites to rolled-up CTC estimates and report these costs at the appropriate installation, intermediate or regional command, or program level. (See subparagraph a.(4)(c) of this section for overhead and management costs that are attributable to a site.) These rolled-up costs may be captured in the DERP information system as “Program Management Sites.”

(6) For LTM phases that are expected to continue indefinitely, CTC estimates should include a finite period of 30 years. For example, the 30-year period would apply to restricted use sites that require indefinite 5-year reviews in the LTM phase. However, finite periods of time longer than 30 years that are substantiated in closure and post-closure plans or other regulatory documents take precedence over the 30-year cut-off. Generally the RA-O phase is finite in duration with a definite end point; therefore, it should be included in its entirety in CTC estimates. However, if an RA-O phase does not have a defined duration supported by an agreement or groundwater model (e.g., MNA with finite period not supported), the CTC estimate should include only the finite period of 30 years. The DoD Component should caveat sites with 30-year cut-offs of the CTC estimate in the Word document that accompanies the SNaP submission.

(7) The DoD Component must maintain defensible, audit-ready records of approved previous and revised environmental restoration cost estimates in the site audit file. These records shall include documentation that supports selection of a response action and development of the cost estimates.

(a) To avoid duplicative records, the site audit file may contain a reference to the administrative record. Confidential or privileged documents must be maintained in a separate portion of the administrative record not accessible to the public. (See subparagraph 7.a.(1)(a)3. of this enclosure for additional information on the administrative record.)

(b) Documentation requested by an auditor shall be readily available for review (i.e., within a day of the request). (Further details on audit trail, documentation, and record retention requirements for CTC estimates are given in paragraphs 14.f. and g. of this enclosure.)

(8) The DoD Component shall ensure that personnel responsible for the development, review, approval, and reporting of DERP CTC estimates are appropriately qualified and trained. Qualifications shall be based on the DoD Component's established internal management controls and training requirements.

(a) The DoD Component shall ensure a segregation of duties; individuals performing review and approval of cost estimates shall not be directly involved in developing the estimates.

(b) Cost-estimate reviewers must additionally, at a minimum:

1. Have familiarity with the project being reviewed (e.g., working on the project, reviewing project documentation other than reviewing the cost estimate).

2. Verify that the estimator has met the necessary training, education, and experience requirements.

3. Verify the estimate is reasonable based on assumptions used.

(c) The DoD Component must be able to demonstrate, through records on the specific personnel qualifications referenced in the site audit file that staff involved in the development, review, approval, and reporting of CTC estimates are appropriately qualified and trained to prepare and approve estimates.

(d) The DoD Component must implement training programs (i.e., introductory training and annual refresher training) for staff or contractors that develop, review, approve, or certify CTC estimates or prepare environmental restoration liability reports. (See DUSD(I&E) Memorandum (Reference (bw)) for further information.)

(e) At a minimum, those that develop, review, and approve or certify CTC estimates must be qualified (by one or a combination of training, education, or experience) in these areas:

1. General environmental studies that address contamination, and laws and regulations governing environmental restoration and associated processes.

2. Environmental programs related to the type of estimate being developed (i.e., personnel must have training or experience in the environmental restoration field to develop cost estimates for environmental restoration activities).

3. Project planning and management related to cost estimate preparation established by the DoD Component.

4. Cost-estimating techniques used (i.e., estimates prepared using the cost-estimating software must be developed by those trained in the use of the current version of the software).

5. Accounting and auditing policies established by the DoD Component for CTC estimates.

b. PPBE Process. The DoD Component with the DUSD(I&E) shall plan, program, and budget resources to meet DoD goals and execute DERP. The DUSD(I&E) shall provide guidance and oversight for the process.

(1) POM. The DoD Component shall prepare and submit its POM consistent with DoD goals in section 9 of this enclosure by completing the environmental restoration formats in accordance with the POM preparation instructions at:

(a) Installations (other than BRAC locations).

(b) Properties transferred from DoD control by non-BRAC processes that are not eligible for the FUDS program.

(c) BRAC locations.

(2) BES and President's Budget. In accordance with Reference (t), the DoD Component shall prepare and submit budget exhibits for the BES and the President's Budget at:

(a) Installations (other than BRAC locations).

(b) Properties transferred from DoD control by non-BRAC processes that are not eligible for the FUDS program.

(c) BRAC locations.

(3) FUDS. The DUSD(I&E) shall plan, program, and budget resources for the FUDS program to meet DoD goals and execute DERP. The Army shall provide POM, BES, and President's Budget input consistent with DoD goals in section 9 of this enclosure to the DUSD(I&E) for review and incorporation into the appropriate POM and budget submissions.

(4) SNaP. Under the budget cycle, the DoD Component shall collect and enter program and budget data in the budget exhibits, ENV 30, Parts 1-3, for all restoration appropriations (i.e., ERAs, legacy BRAC, and BRAC 2005) through SNaP. The DUSD(I&E) shall consolidate recommendations from the Defense Agencies and enter the data into SNaP, including DUSD(I&E) funds for management oversight.

(5) DUSD(I&E) Submissions. The DoD Component shall submit the POM, BES, and President's Budget submission in accordance with the official schedules published in the USD(C) call letters for the Integrated Program and Budget Review, and the annual call letter for the President's Budget submission. Generally, the POM and BES submissions will be due to OSD between late August to mid-September of each year, and the President's Budget data will be due between late January to early February of each year. The DoD Component shall provide supporting data by site and environmental restoration phase, including site status, schedule,

current year obligations, and CTC, to the DUSD(I&E) through the OSD DERP information system 2 weeks prior to each POM, BES, and President's Budget submission.

(6) Appropriation. Pursuant to section 2703 of Reference (n), all funds appropriated to carry out the functions of the Secretary of Defense relating to environmental restoration on installations (other than BRAC locations) and FUDS shall be appropriated to the transfer accounts (i.e., Environmental Restoration, Army; Environmental Restoration, Navy; Environmental Restoration, Air Force; Environmental Restoration, Defense-Wide; and Environmental Restoration, FUDS). Subsequently, the DoD Component shall transfer the funds to appropriate accounts (e.g., Operations and Maintenance, Procurement) to conduct environmental restoration activities and the funds shall assume the characteristics of funds appropriated to those accounts. In a similar manner, the DoD Component BRAC Accounts shall fund environmental restoration activities at installations closing in accordance with the various BRAC statutes.

c. Cost-Recovery and Reprogramming

(1) DoD Response Cost-Recovery From Other Entities

(a) The DoD Component shall pursue recovery of response costs from other PRPs if such activity appears to be potentially cost-effective. (See USD(AT&L) Memorandum (Reference (bx)) for additional information.)

(b) The Heads of the DoD Components shall report to the DUSD(I&E) cumulative costs and FY costs for each cost-recovery or cost-sharing action underway or completed. They shall report cost-recovery amounts separately from cost-sharing amounts. The information will be included annually in the DEP ARC.

(c) The DoD Component may credit their ERA (or in the case of FUDS, the Environmental Restoration, FUDS, Account) or the environmental restoration portion of their BRAC Account, by amounts recovered pursuant to CERCLA for response costs attributable to other PRPs pursuant to sections 2703(e)(1) and (2) of Reference (n). The DoD Component may also credit any other amounts recovered from a contractor, insurer, surety, or other person to reimburse the DoD or a DoD Component for any expenditure for response activities.

(d) The DoD Component should seek to have a PRP either conduct response actions or contribute to the cost of response actions on a cost-recovery or contribution basis.

1. As early as possible in the environmental restoration process, the DoD Component shall establish processes to identify other PRPs eligible for cost-recovery in accordance with CERCLA or other relevant environmental or cost-recovery statutes.

2. The DoD Component's legal staff shall coordinate with DGC(E&I) and DOJ to pursue claims against such parties. When cost-recovery or contribution claims appear to be possible and cost-effective, the DoD Component shall promptly establish, in coordination with DOJ, a system to maintain all cost and project documentation necessary to support cost-recovery



claims against the PRPs. These items should be maintained in the installation's administrative record or equivalent record.

(2) Processing Recovery Costs and Reprogramming

(a) The DUSD(I&E)/EM shall process recovery actions for the Defense Agencies to credit into the Environmental Restoration, Defense-Wide Account. Each DoD Component will process its own recovery actions for credit to its ERA. Recovery actions are not limited to recovery of current-year appropriations.

(b) The PRP should make the recovery check payable to the "Environmental Restoration, Defense-Wide Account," (or to ERA or to a DoD Component, as appropriate). Alternatively, for checks the PRP makes payable to the Defense-Wide Account, a court settlement may restrict deposit to the appropriate ERA by noting the restriction in the remarks area of the check. This will ensure that the check is recovered into an ERA, and not collected as miscellaneous receipts to the Department of the Treasury. To ensure the funds are recovered into their ERAs, the DoD Component shall indicate their appropriate codes and designation numbers on checks from the PRP.

(c) The PRP should provide the recovery check to the DUSD(I&E)/EM (or the appropriate DoD Component's environmental restoration program management office) for tracking and monitoring. The DUSD(I&E)/EM shall forward checks received to the financial management counterpart that handles reimbursable accounts. The receiving DoD Component shall then forward the cost-recovery check, whether electronically or hard copy, to the Defense Finance and Accounting Service (DFAS). For FUDS, USACE shall send funds to the USACE Finance Center, which shall account for any cost-recovery funds.

(d) DFAS shall process ERA collections and deposit the funds into the transfer account for the DoD Component's ERA funds. Section 2703(e) of Reference (n) requires that recovered funds be credited back to the ERA or BRAC Account from which the costs were originally paid. If payments were from multiple sources, DFAS will distribute the funds accordingly.

(e) In approximately 6-8 weeks, the collection will appear on Department of the Treasury reports. Once that is confirmed, the DoD Component may request that the USD(C)/CFO reprogram funds to any currently authorized DERP project within the DoD Component ERA or BRAC Account.

#### 14. ENVIRONMENTAL LIABILITIES REPORTING

a. Pursuant to the 1990 Chief Financial Officers Act, section 502 of Reference (ag), and subsequent legislation, the DoD shall improve financial management and reporting, and provide accurate, complete, reliable, timely, and auditable financial information. For DERP financial reporting is based on the CTC estimates addressed in section 13.

(1) This Manual must be used in conjunction with DoD accounting policy for environmental liability in chapter 13 of Volume 4 of Reference (t). The DoD Component shall use the accounting definitions for “cleanup costs,” “hazardous waste,” and “environmental liability” provided in OMB Statement of Federal Financial Accounting Standards (SFFAS) No. 5 (Reference (by)) and Federal Accounting Standards Advisory Board SFFAS No. 6 (Reference (bz)) for CTC estimates and environmental liability reporting.

(2) The DoD Component shall meet the USD(C)/CFO plan (Reference (ca)) schedule for achieving an unqualified audit opinion for environmental liabilities estimated in compliance with DoD financial and functional policy that will be sustainable through business process improvement initiatives. The DoD Component financial improvement plan (FIP) shall provide more detailed milestones by expanding on the steps needed to achieve audit readiness.

(3) The DoD Component shall incorporate the process model, logical data model, data elements, and business rules detailed in Reference (bv) into their business processes and information systems to ensure auditable environmental liability reporting. In areas where the FIPs are dependent on the DoD Component’s business process reengineering implementation plan, the DoD Component shall ensure that the schedules and capabilities are consistent between the two plans.

b. All DERP environmental restoration costs shall be reported as environmental liabilities. The DoD Component must report DERP CTC estimates, as adjusted based on accounting requirements, from their program feeder systems into financial systems to determine DERP environmental liability.

(1) The DoD Component environmental staff is responsible for producing reliable, accurate, and reproducible cost estimates to support environmental liability reporting. The DoD Component environmental staff is responsible for providing the needed site-level input and supporting this information during financial audits.

(2) The DoD Component financial management staff are responsible for preparation of the Component financial statement (i.e., the Note 14, “Environmental Liabilities and Disposal Liabilities,” as established in Volume 6B of Reference (t)) based on the information supplied by the DoD Component environmental staff.

(3) The DoD Component environmental staff shall coordinate at least quarterly with the DoD Component financial management staff that utilizes the cost estimates to prepare the financial statements. Open lines of communication must be maintained so that issues and needs are identified and addressed throughout the process.

c. Footnotes or “Notes” to a financial statement present additional disclosures and policy explanations to the reported values on the financial statement. Environmental liabilities are reported on Note 14 of the DoD financial statement as established in Volume 6B of Reference (t). Note 14 has two main sections: the area where values for each category of liability are reported, called the “Schedule;” and the accompanying narrative referred to as “General Narrative Disclosures.”

(1) The DoD reports environmental restoration liabilities in these two categories on the Note 14 Schedule.

(a) Accrued Environmental Restoration Liabilities. Accrued environmental restoration liabilities represent the cost to perform restoration activities eligible for funding from the DoD Component-specific ERA, in accordance with section 2 of this enclosure.

(b) BRAC Locations. Environmental restoration liabilities at BRAC locations represent the cost to correct environmental contamination at closing facilities, funded by the BRAC Accounts.

(2) The Note 14 Schedule reports total liabilities, supported by site-level cost estimates that are also used for budget development. Updates to the cost estimates must account for work completed and costs expended. To enable site-specific tracking of obligations and expenditures, the DoD Component shall implement internal business process changes such that funds expended will be tracked by DERP site.

(3) The Note 14 General Narrative Disclosures include text descriptions and disclosures needed to support the recognized environmental liability. The DoD Component financial staff will rely on their environmental staff to provide information needed for development of these disclosures. Specific required narrative disclosures include:

(a) General descriptions of the environmental liabilities included in the financial statement.

(b) Applicable laws and regulations generating environmental restoration requirements (i.e., regulatory drivers for the environmental restoration requirements).

(c) The methodology used to develop the cost estimate (e.g., cost estimating models, engineering estimates, comparison with similar sites).

(d) Significant changes in the total estimated environmental restoration costs due to changes in laws, technology, or the DoD Component-wide plans (e.g., number of sites, remedial action objectives affecting multiple sites).

d. The DoD Component must be able to demonstrate to an auditor that a complete universe of DERP environmental liabilities (i.e., DERP sites) has been identified in their system of record and included in the environmental restoration cost estimates reported on the financial statement. Information and activities that support this due diligence in identifying a complete environmental

liability universe may include: reviews of chain-of-custody records; aerial photos and records that may show prior uses; visual SIs; review of any health complaints; analyses to estimate the existence of uninvestigated sites based on information from known sites; and documentation of investigations conducted for regulatory purposes.

e. For DERP sites, the DoD Component shall reconcile environmental records with real property records at least annually.

(1) The real property records should indicate that each record was reviewed for environmental issues. Any existing environmental restoration sites should be associated with the affected real property records through the environmental site identifier.

(2) The responsible environmental program office must maintain records of each site and associate it with the applicable real property records.

f. The DoD Component shall maintain an audit trail that enables auditors to verify a transaction from its source to the resulting record, and from the resulting record or report to the source. The DoD Component shall maintain documentation to support the financial statement (e.g., supporting documentation needed to validate environmental liability estimates from source documents such as invoices, cost estimate assumptions, data sources, independent government estimates, and estimate methodologies with appropriate reviews and approvals) in the site audit file. The location of supporting documents referenced but not present in the site audit file (e.g., documents in the administrative record) should be listed and readily available for audit. (See subparagraph 13.a.(7) of this enclosure for information on how the site audit file supports the CTC and financial reporting process.) Site audit file documentation must include:

(1) Overview of the site (e.g., maps, narrative descriptions, and physical units).

(2) Legal requirements (e.g., applicable laws and regulations).

(3) Data sources (e.g., studies, sampling results).

(4) Internal control procedures used to review, approve, change, aggregate, and archive the data.

(5) The site's prior-year and current-year approved estimates. In addition, previously approved estimates and changes in those estimates should be available for review of historical patterns, along with the date prepared and preparer's name for each cost estimate.

(6) Reasons for any fluctuations in cost estimates greater than or equal to 10 percent from the last approved estimate (minimum \$25,000 fluctuation, excluding inflation and work completed) for environmental restoration activities and the cause of the fluctuation. Causes for fluctuations may include changes in:

(a) Work planned versus actual expenditures.

- (b) Site conditions.
- (c) Standards or regulations.
- (d) Response action technology.

(7) Validation of the cost estimate, including project-related documents that support underlying factors and assumptions for each DERP site, environmental restoration methodology, estimate elements, costs for each unit, and the method for estimating environmental restoration costs (e.g., cost-estimating model, engineering estimate, rationale used, source documents). Documentation must also include the assumptions used as input to cost-estimating models.

(8) Quality review and approval of all cost estimates.

(a) A checklist is the recommended approach for documenting quality review. The DoD Component should develop quality-review checklists based on the requirements in this enclosure and any requirements specific to the DoD Component's business process. The checklist should include review steps and questions used by the reviewer to assess the reasonableness of the estimate.

(b) Those conducting review and approval of estimates should complete, sign, and date the checklist to reflect final approval, and the checklist should be maintained with the estimate in the site audit file.

(9) Qualifications and training requirements met by the estimator, reviewer, and others involved in the preparation or adjustment of the cost estimates. (See subparagraph 13.a.(8) of this enclosure for CTC developer, reviewer, and approver requirements.)

(10) Documentation on feeder systems used to transfer data from the DoD Component program systems to financial systems and the DERP information system.

(11) Documentation demonstrating that a complete universe of environmental restoration sites has been identified and included in the cost estimates.

(12) Other documentation needed to support the Note 14 and narrative disclosures.

g. The DoD Component should maintain documentation to support environmental liability recognition and disclosures, including due diligence and management reviews, for the life of the liability to support the financial statement in the site audit file. Documents must be retained for the period required by the environmental regulatory requirements.

h. Internal management controls must be established and maintained through the DoD and the DoD Component organizations to ensure effective business processes, controls over information processing, segregation of duties, and accurate and timely recording of transactions or events. DoDI 5010.40 (Reference (cb)) and OMB Circular No. A-123 (Reference (cc)) establish procedures for improving the accountability and effectiveness of Federal programs and

operations by establishing, assessing, correcting, and reporting on internal management controls. In accordance with these issuances, each DoD Component must establish and maintain a process to identify and report internal management control weaknesses through an annual statement of assurance.

(1) To support the assurance of adequate internal management controls, personnel involved in developing cost estimates must maintain:

(a) Evidence of management communication of the need for proper accounting estimates.

(b) Relevant, sufficient, and reliable data and support documentation to validate estimates.

(c) Segregation of duties for cost estimators, estimate reviewers, and estimate approvers.

(2) Cost estimate reviews must be performed by qualified cost estimate reviewers in accordance with subparagraph 13.a.(8) of this enclosure to verify that:

(a) Estimates comply with DoD policy and guidance.

(b) Cost estimators are qualified.

(c) Sources of factors used to develop cost estimates are valid and reasonable.

(d) Assumptions and resulting estimates are reasonable.

(e) Comparison of prior and current cost estimates supports the reliability of the cost-estimate methodology.

(f) Management considers the resulting accounting estimate to be consistent with the operational plans of the facility.

(3) Management review and approval of estimates should be documented and maintained as part of the site audit file, including documentation of changes required based on management review. (See subparagraph 13.a.(7) and paragraphs 14.f. and g. of this enclosure for information on the site audit file.)

i. The DoD shall report environmental liabilities separately from litigation-based contingencies by reporting environmental and disposal liabilities on Note 14. (See chapter 10 of Volume 6B of Reference (t) for instructions for each of the Notes.) The DoD Component environmental staff should coordinate questions related to contingent liability classification with the DoD Component's financial management staff and legal counsel.

(1) Typically, the DoD Component shall disclose litigation-based contingent liabilities that are considered reasonably possible on Note 16. If the contingent liability is probable, it is recognized in Note 15. Legal counsel shall make the determination of remote, possible, or probable.

(2) The Department of the Treasury Judgment Fund payments shall be considered contingent liabilities. Upon settlement and payment from the Judgment Fund and after the DoD Component reimburses the Judgment Fund (when required), the liability shall be removed from the financial statement.

## 15. INTERGOVERNMENTAL RELATIONSHIPS

### a. Relationships With Other Entities

(1) The DoD is fully committed to the substantive involvement of EPA, Federal land managers, other appropriate Federal agencies, and State, interstate, Indian tribal, and local governments throughout the environmental restoration process. The DoD Component shall provide EPA and affected State, interstate, Indian tribal, and local officials with notice of discrete phases of a response (e.g., discovery of a release, proposed response actions, and initiation of response action) and adequate opportunity for timely review and comment for response actions in accordance with section 2705 of Reference (n). This includes providing draft PA/SI, proposed removal actions except emergency responses, and proposed remedial actions (e.g., FS, proposed plan). The DoD Component shall take proactive steps to identify and address issues of concern to stakeholders. These efforts have the overall goal of ensuring that decisions regarding environmental restoration activities reflect consideration of a broad spectrum of stakeholder input. In addition to notifications and comment required by statute, the DoD Component shall provide regulatory agencies with the opportunity to comment on:

- (a) RRSE and MRSPP priority determinations.
- (b) Project planning, budgeting, and implementation (including the development and updating of MAPs).
- (c) Work plan development.
- (d) Completion of response action activities.
- (e) RABs and other community involvement initiatives.

(2) The DoD Component shall not enter into agreements to pay for the costs of other agencies to oversee the environmental restoration activities described in subparagraph a.(1) of this section, unless expressly authorized by Congress or in support of the MOU Between ATSDR and the DoD (Reference (cd)).

b. Working With States

(1) State Services Eligible for DSMOA. In accordance with section 2701(d) of Reference (n), the DSMOA program supports environmental restoration and ensures compliance with applicable State laws. It provides for the DoD to enter into agreements on a reimbursable or other basis for services provided by State agencies to assist the Department in carrying out the responsibilities of the Secretary of Defense pursuant to section 2701 of Reference (n) at active installations, BRAC locations, and FUDS properties. (For more information on the DSMOA program, see DoD and State Memorandum of Agreement/ Cooperative Agreement Program Guide (Reference (ce)).)

(a) A warranted Grants Officer administers the CA in compliance with all applicable laws and regulations and in accordance with DoD 3210.6-R (Reference (cf)).

(b) The States should receive full reimbursement for performance of eligible services under the DSMOA program. The requirements controlling the eligibility of various types of State services for DSMOA program are primarily governed by whether:

1. The service is in furtherance of the DERP responsibilities of the Secretary of Defense.
2. The activity is a service, as opposed to, e.g., a statutory duty.
3. The service is associated with a specific installation, BRAC location, or FUDS or the administration of the DSMOA/CA.
4. The service is listed in the Joint Execution Plan (JEP).

(c) The requirements for State activities to be eligible for reimbursement include:

1. Statutory Requirements. Section 2701(d) of Reference (n) requires that, for any agreement entered into in accordance with that section:

a. The services received must be in furtherance of the responsibilities of the Secretary of Defense pursuant to section 2701 of Reference (n), not in furtherance of the responsibilities of the other party. This limitation only allows payment of costs of activities sought by the DoD. Any service that is not in furtherance of the Secretary's DERP responsibilities would be ineligible for reimbursement. One factor indicating a service may be within the Secretary's DERP responsibilities is that it is statutorily eligible for funding from one of the ERAs or BRAC Accounts.

b. The DoD must receive services. Section 2701(d) of Reference (n) only provides for payments to an otherwise-eligible entity for activities that qualify as a service in furtherance of DERP. The numerous activities that could constitute services in furtherance of DERP might include attending meetings at the request of the DoD, engaging in dispute



resolution (but not regulatory enforcement), and certain public outreach activities. A service must be something that the DoD would not otherwise be entitled to receive.

2. DSMOA Requirements. In addition to the basic statutory requirements, the DSMOA-specific program eligibility requirements are:

a. Eligible installations shall be listed in the DSMOA Attachment A.

b. Eligible services must be listed in the DSMOA. Services eligible for reimbursement in one State may be treated differently in another State. Reimbursable services must be related to DSMOA or CA preparation and administration, or associated with an installation listed on the Attachment A of the CA. A service applying to several installations may be apportioned accordingly (if also listed on the JEP for each of those installations). For instance, the provision of personnel and supporting facilities is not a service specific to any installation; therefore, State training and support facilities, while likely a contributing factor in calculating any overhead rate for billing purposes, would not normally be separately billable services.

c. A service must be sought by the DoD, not an action imposed by the State. The DoD cannot be entitled to the action as a matter of right. For example, review of environmental documentation by a State regulatory agency, to the extent the agency has a statutory obligation (as opposed to a negotiated obligation such as in an FFA) to provide that review and to do so within a legally specified timeframe, would not qualify as a service. However, if the DoD wishes to have that review expedited to advance its restoration program by seeking from the agency a higher priority for review than the DoD would otherwise receive, it would be receiving a service beyond the normal obligations of the regulatory agency. (Other variations could also qualify as services; expedited service is used as the example here because it is integral to the DSMOA framework.) The DSMOA is premised on the expectation that State regulators will, due to DSMOA payments, be able to provide the DoD with higher priority in their DERP participation, thereby increasing DERP efficiency. It is that expedited action that the DoD seeks and receives as a service through the DSMOA. When the DoD seeks higher priority review of a document or seeks participation at a meeting associated with one or more installations listed on the DSMOA CA Attachment A, and in furtherance of DERP, and the State agency is not specifically required to engage in these actions pursuant to its own laws, such review or participation qualifies as a service, and hence would be eligible for reimbursement. Accurate characterization of State services to ensure they qualify for reimbursement is critical to effective operation of the DSMOA program.

3. CA Requirements. The CA shall:

a. List all eligible installations and facilities on the State's CA Attachment A.

b. Only provide for reimbursement of costs that reflect agreed-upon work listed in the JEP. The JEP will vary from State to State and from location to location. The State and the DoD Component need to be rigorous in ensuring all services are listed in each appropriate JEP to avoid misunderstandings and disagreements during each CA period.

c. Require that funds be available and obligated.

4. Other Federal Requirements. State services must meet Federal requirements for CAs with States (e.g., OMB Circulars A-87, A-110, and A-133 (References (cg), (ch), and (ci))).

(2) Alternatives to DSMOA for State Reimbursement

(a) The DoD Component may pursue alternative approaches to the DSMOA for reimbursing costs of State DERP related services. Alternative approaches are subject to the appropriate State or territorial regulatory agency agreeing to negotiate a separate agreement. Alternative agreements to DSMOA shall comply with all applicable legal requirements and DoD policy.

(b) To ensure an orderly withdrawal from the DSMOA program, the DoD Component shall notify the DUSD(I&E)/EM and the Office of the DAS of the Army (ESOH) at least 60 days in advance of signing an agreement to pursue an alternative approach to DSMOA. The DoD Component shall monitor and document the alternative approach and ensure it meets all legal, fiscal, and policy requirements.

c. DoD Interactions With Federally-Recognized Indian Tribes

(1) The DoD Component shall consult with Federally-recognized Indian tribal governments whenever proposing an environmental restoration action that may have the potential to significantly affect tribal resources, tribal rights, or Indian lands.

(2) This consultation shall occur on a government-to-government basis in recognition of Indian tribal sovereignty status and the unique relationship of Federally-recognized Indian tribes to the United States Government, in accordance with DoDI 4710.02 (Reference (cj)) and E.O. 13175 (Reference (ck)).

16. COMMUNITY INVOLVEMENT

a. General. The DoD shall involve the local community in the environmental restoration process as early as possible and shall seek continued community involvement throughout. DERP, CERCLA, and NCP provide for formal consideration of diverse environmental factors and meaningful opportunities for public involvement on proposed response actions. The DoD Component shall ensure that similar opportunities for public review and comment occur on proposed RCRA corrective actions (e.g., corrective measures study or proposed statement of basis depending on lead regulator terminology).

(1) Each installation, BRAC location, and FUDS conducting environmental restoration in accordance with CERCLA shall develop a community relations plan (CRP).

(a) In accordance with subpart 300.430(c)(2)(ii) of NCP, the CRP should be complete to the extent practicable prior to commencing RI field work. The CRP will also address the applicable requirements of E.O. 12898 (Reference (cl)). The installation, BRAC location, and FUDS shall ensure the scope and level of detail contained in the CRP is commensurate with the extent and duration of the environmental restoration activities.

(b) Responses conducted under non-CERCLA authorities (e.g., RCRA corrective action) do not require a CRP unless specified by a law, regulation, permit, enforcement order, or agreement. The DoD Component is encouraged to evaluate if the site would benefit from a CRP.

(2) Each installation, BRAC location, and FUDS shall designate a POC for environmental restoration activities. The POC shall be identified to the local community through appropriate means (e.g., a newspaper notice) and will serve as the entry point for community inquiries or comments. Installation, BRAC location, and FUDS shall also provide contact information for its public affairs office.

(3) Information on environmental restoration activities shall be made available to the public in a timely manner, using appropriate mechanisms for disseminating information to the public as outlined in the CRP (e.g., local media, public meetings, and websites). However, where litigation exists involving environmental restoration activities, the DoD Component legal staff shall be consulted on the appropriate or required means for providing documents to the litigating party or the public.

(4) Stakeholders shall be given the opportunity to be involved in updating the MAP, except for updates to elements that include Government cost estimates for future procurement actions.

b. TRC. Pursuant to the RAB Rule, published at part 202 of Reference (y), the DoD should convert existing TRCs or similar advisory groups into RABs, provided there is sufficient interest within the community. The DoD Component shall not form additional TRCs; however, existing TRCs not converted to a RAB will continue to be funded.

c. RAB. Each installation and BRAC location shall establish a RAB where there is sufficient and sustained community interest (part 202 of Reference (y)). A RAB fulfills the requirements of section 2705(c) of Reference (n), which directs the DoD to establish TRCs. RABs may only address issues associated with DERP environmental restoration activities. A RAB may be established for environmental restoration conducted under other statutes when deemed appropriate or required by a permit, enforcement order, or statute. Only one RAB or TRC will be recognized for each installation or BRAC location.

(1) The formation, composition, operation, adjournment, and dissolution of RABs shall be conducted in accordance with part 202 of Reference (y) and as explained in the OSD Handbook (Reference (cm)).

(2) In general, the same criteria for determining community interest in establishing and operating a RAB at an installation also applies to FUDS. However, circumstances may exist in which the establishment of a RAB at a FUDS is impractical, including when:

- (a) The FUDS property owner objects to the establishment of a RAB.
- (b) RAB establishment is unfeasible due to the short duration of activities.
- (c) The property lies in a remote location with no community in the vicinity.
- (d) All major environmental decisions for all projects have already been made.

(3) When a RAB is not established, the DoD Component or the USACE district commander will provide an MFR to document the rationale. This MFR shall be included in the administrative record.

d. Technical Assistance for Public Participation (TAPP). Opportunities for technical assistance through the DoD TAPP program shall be made available to community members of RABs or TRCs in accordance with section 2705(e) of Reference (n) and the TAPP regulations at part 203 of Reference (y). RAB community members may request funding for technical assistance from private-sector sources from an installation's commanding officer or other appropriate DoD official.

(1) Only community members (not Government members) of RABs and TRCs may ask for TAPP support. Any request for TAPP must represent the wishes of the majority of the RAB or TRC community members, and the RAB or TRC must certify this to be true on the application. The RAB or TRC requesting assistance must be recognized by the DoD Component.

(2) TAPP will be funded from the appropriate ERA or BRAC Account. It is categorized as a program administration cost. There is no guaranteed or automatic TAPP funding allocation by installation and no separate account.

(a) TAPP funding may not exceed \$100,000 over the life of the restoration program at the installation, BRAC location, or FUDS. The limit for a single FY is \$25,000, or 1 percent of the installation's total projected environmental restoration CTC, whichever is less.

(b) Waivers to the \$100,000 total and \$25,000 annual funding limits may be approved by the DoD Component DAS for the Environment (or equivalent). Requests for waivers shall be initiated by the RAB or TRC community members and forwarded by endorsement with recommendations by the installation's commanding officer or other appropriate DoD official through the chain of command to the DoD Component DAS for the Environment (or equivalent).

(3) In the event that a dispute arises concerning the approval of a TAPP request or waivers to the annual funding limits, the RAB or TRC community members may appeal the DoD

decision. Appeals will be considered within the chain of command, and in general, will be resolved at the lowest possible level. The highest level of appeal will be to the DoD Component DAS for the Environment (or equivalent).

(4) Communities that have received technical assistance grants or technical outreach services to communities from EPA are not precluded from getting a TAPP award. However, these other sources of funds are relevant considerations during the decision process.

(5) Each RAB or TRC that receives a TAPP award must submit an annual TAPP results report to the installation and to the DUSD(I&E). The installation will forward this report to the DoD Component DAS for the Environment (or equivalent). This report will include:

- (a) A description of the TAPP project.
- (b) A summary of services and products obtained.
- (c) The amount of TAPP funds obligated by FY.
- (d) An evaluation for each project addressing whether TAPP assisted the community in participating in the restoration program.

#### 17. NATURAL RESOURCE INJURY (NRI)

a. The DoD Component is a CERCLA trustee on behalf of the public for natural resources the DoD Component manages or controls. (See Reference (c) and section 9607(f) of CERCLA.) Typically the DoD Component is a trustee at their installations. This responsibility is separate from any potential response cost liability a DoD Component may have as a CERCLA PRP.

b. At sites where a DoD Component is a trustee and a PRP, the DoD Component shall:

(1) Identify NRI (preferably as part of an ecological risk assessment) and, whenever practicable and consistent with the response action, redress it as part of the site assessment, investigation, remedy selection, and implementation processes.

(2) Notify other trustees with jurisdiction over natural resources at the site, which may include Federal agencies, States, and Indian tribes, of actual or potential NRI.

(3) Coordinate any necessary ecological risk assessments, RIs, and response action planning with other natural resource trustees in accordance with CERCLA, NCP, and this Manual. (See sections 9604(b) and 9607(f) of CERCLA.) This coordination does not grant the other trustees any formal role in the remedy selection process. When appropriate, the DoD Component may invite other natural resource trustees to attend RAB meetings.

(4) Whenever practical, during the FS assess how each response alternative addresses existing NRI and whether implementation of an alternative will itself cause additional NRI.

(5) When feasible and cost-effective, select a response that will result in the least amount of NRI.

c. The DoD Component's ERA and BRAC Account may be used to address NRI only if the action to be funded is incident to the response action process.

(1) These accounts may not be used to enhance or replace natural resources unless such actions are required for conduct of a response action.

(2) Environmental restoration funding may not be used to conduct natural resource damage assessments or to pay other natural resource trustees monetary damages.

d. The DoD is not a natural resource trustee at FUDS. USACE natural resource activities for response actions at FUDS are specified in USACE FUDS guidance (Reference (cn)).

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

AAR	after action report
ADUSD(ESOH)	Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health
ARAR	applicable or relevant and appropriate requirement
AST	aboveground storage tank
ATSDR	Agency for Toxic Substances and Disease Registry
BCT	BRAC cleanup team
BD/DR	building demolition and debris removal
BEC	base environmental coordinator
BES	budget estimate submission
BRAC	Base Realignment and Closure
CA	cooperative agreement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CRP	community relations plan
CSGWPP	Comprehensive State groundwater protection program
CTC	cost to complete
CWM	chemical warfare materiel
DAS	Deputy Assistant Secretary
DCAPE	Director, Cost Assessment and Program Evaluation
DD	decision document
DDESB	DoD Explosives Safety Board
DEP ARC	Defense Environmental Programs Annual Report to Congress
DERP	Defense Environmental Restoration Program
DFAS	Defense Finance and Accounting Service
DLA	Defense Logistics Agency
DMM	discarded military munitions
DoDD	DoD Directive
DGC(E&I)	Deputy General Counsel for Environment and Installations
DoDI	DoD Instruction
DOJ	Department of Justice
DSMOA	Defense and State Memorandum of Agreement
DUSD(ES)	Deputy Under Secretary of Defense for Environmental Security
DUSD(I&E)	Deputy Under Secretary of Defense for Installations and Environment
DUSD(I&E)/EM	Deputy Under Secretary of Defense for Installations and Environment Environmental Management Directorate

EE/CA	engineering evaluation and cost analysis
ECP	environmental condition of property
EMR	environmental management review
E.O.	Executive order
EPA	Environmental Protection Agency
ERA	Environmental Restoration Account
ETA	early transfer authority
FFA	Federal facility agreement
FIP	financial improvement plan
FOSET	finding of suitability for early transfer
FOSL	finding of suitability to lease
FOST	finding of suitability to transfer
FS	feasibility study
FUDS	formerly used defense site
FY	fiscal year
FYDP	Future Years Defense Plan
GSA	General Services Administration
IAG	interagency agreement
IRA	interim remedial action
I-RACR	interim remedial action completion report
IRIS	Integrated Risk Information System
IRP	installation restoration program
JEP	joint execution plan
LTM	long-term management
LUC	land use control
MAP	management action plan
MC	munitions constituents
MCL	maximum contaminant level
MEC	munitions and explosives of concern
MFR	memorandum for the record
MILCON	military construction
MMRP	Military Munitions Response Program
MNA	monitored natural attenuation
MOU	memorandum of understanding
MRA	munitions response area
MRCSS	munitions response chemical safety submission
MRESS	munitions response explosives safety submission
MRS	munitions response site
MRSPP	Munitions Response Site Prioritization Protocol



NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDAI	no DoD action indicated
NEPA	National Environmental Policy Act of 1969
NPL	National Priorities List
NRI	natural resource injury
OUS(D)/CFO	Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer
OMB	Office of Management and Budget
OSWER	Office of Solid Waste and Emergency Response
PA	preliminary assessment
PA/SI	preliminary assessment/site inspection
POC	point of contact
POL	petroleum, oil, or lubricants
POM	program objective memorandum
PPBE	planning, programming, budgeting, and execution
PRP	potentially responsible party
RAB	Restoration Advisory Board
RA-C	remedial action-construction
RACR	remedial action completion report
RA-O	remedial action-operation
RAWP	remedial action work plan
RC	response complete
RCRA	Resource Conservation and Recovery Act of 1976
RD	remedial design
RI	remedial investigation
RI/FS	remedial investigation and feasibility study
RIP	remedy in place
ROD	record of decision
RRSE	relative risk site evaluation
SC	site closeout
SFFAS	Statement of Federal Financial Accounting Standards
SI	site inspection
SMAP	State-wide management action plan
SNaP	Select and Native Programming Data Input System
TAPP	technical assistance for public participation
TOA	total obligation authority
TPS	third-party site
TRC	technical review committee
TSD	treatment, storage, and disposal
USACE	U.S. Army Corps of Engineers

U.S.C.	United States Code
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics
USD(C)/CFO	Under Secretary of Defense (Comptroller)/Chief Financial Officer
UST	underground storage tank
UXO	unexploded ordnance
UU/UE	unlimited use and unrestricted exposure
VV&A	verification, validation, and accreditation

## PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purposes of this Manual.

administrative record. Defined in subsection 300.800 of NCP.

anomaly avoidance. Defined in Reference (w).

BCT. A group responsible for carrying out the DERP requirements at legacy BRAC locations where property is to be transferred. The BCT will consist of a commander-appointed BEC, a representative of the State environmental regulatory agency, and an EPA representative.

BD/DR. The demolition and removal of unsafe buildings and structures at facilities or sites that are or were under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States (including Governmental entities that are the legal predecessors of the DoD or the DoD Component) and that were unsafe at the time of transfer and have not been beneficially used since transfer by any other party. One of three DERP program categories.

BEC. An individual appointed by a commander or the DoD Component authority. The BEC is responsible for executing DERP requirements in support of base closure.

BRAC. A congressionally authorized process to close and realign military installations.

BRAC 2005. Military installations closed or realigned in the 2005 round of BRAC. Restoration at these installations is managed according to program goals and metrics different from legacy BRAC locations.

BRAC environmental line. The line of the DoD Component budget into which funds for environmental activities at BRAC locations are aggregated. The different categories of funds are environmental restoration, environmental compliance, planning, and management and support. Legacy BRAC and BRAC 2005 have separate BRAC accounts.

BRAC locations. Installations that are being or have been closed or are being realigned by BRAC but are still under the jurisdiction of the DoD and those properties that have been transferred out of the DoD by the BRAC process but where the DoD retained restoration responsibilities.

CA. As it pertains to DSMOA, defined in Reference (ce).

chemical agent. Defined in subpart 179.3 of Reference (y).

closure pursuant to RCRA. The process by which a RCRA hazardous waste management unit is secured at the end of its use. There are generally two types of closure: “clean closure” and “closure with waste in place.” In clean closure, hazardous waste is removed for off-site treatment or disposal in another hazardous waste management facility, and there are no post-closure requirements. In “closure with waste in place,” hazardous wastes remain at the site. In this case, the objective of closure is to ensure that the site poses no long-term hazard to human health and the environment. The closure regulations in part 264 of Reference (s) and subpart G of part 265 of Reference (s) establish procedures for closure requiring owners and operators to submit closure plans to EPA (or an authorized State) for approval. In addition, part 264 of Reference (s) establishes specific requirements for closure of different types of units. For example, owners and operators of landfills are required to cover the unit with an impermeable cap designed to minimize infiltration of liquid into the unit and conduct post-closure care (e.g., maintenance of the cap and groundwater monitoring).

CRP. Defined in subpart 300.430(c) of NCP. This plan also addresses the applicable requirements of Reference (cl).

CWM. Defined in subpart 179.3 of Reference (y).

DD. A generic term used to describe the documentation for the selection of a removal action, remedial action, or other type of environmental restoration action. Examples of DDs include an action memorandum (i.e., document describing a removal action selected in accordance with subpart 300.415 of NCP) and ROD (i.e., document describing the selection of a remedial action).

defense site. Defined in subsection 2710(e)(1) of Reference (n).

DMM. Defined in subsection 2710(e)(2) of Reference (n).

DSMOA. Defined in Reference (ce).

environmental liabilities. Defined in chapter 13 of Volume 4 of Reference (t).

explosives safety management. Defined in Reference (u).

explosive hazard. Defined in subpart 179.3 of Reference (y).

explosives or munitions emergency response. Defined in subpart 260.10 of Reference (s).

facility. Defined in section 9601 of CERCLA.

facility (for purposes of construction classification). Defined in section 2801 Reference (n).

FOSET. The process to document the conclusion that property is environmentally suitable for early transfer by deed in compliance with section 9620 of CERCLA.

FOSL. The process to document the conclusion that property is environmentally suitable for lease.

FOST. The process to document the conclusion that property is environmentally suitable for transfer by deed.

FS. Defined in subpart 300.5 of NCP.

FUDS project. See definition of “site.”

FUDS property. A facility or site (property) that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. The FUDS program is limited to those real properties that were transferred from DoD control prior to October 17, 1986. Properties must be located within the United States.

harm to a natural resource. A measurable adverse change in the chemical or physical quality or viability of a natural resource caused by a release of a CERCLA hazardous substance.

hazardous substance. Defined in section 9601(14) of CERCLA.

installation. A base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the DoD, including any leased facility, that is located within the United States. Does NOT include FUDS or any facility used primarily for civil works, rivers and harbors projects, or flood control projects.

institutional controls. A subset of LUCs that are primarily legal mechanisms to ensure the continued effectiveness of LUCs imposed as part of a remedial decision.

IRA. A remedial action undertaken prior to the selection of the final remedy as a part of a larger remedy.

JEP. Defined in Reference (ce).

legacy BRAC. Installations closed or realigned under the first four rounds of base closures for 1988, 1991, 1993, and 1995.

liquidated obligations. The amount of obligations against which payments (disbursements) have been made.

local redevelopment authority. Defined in subpart 174.3 of Reference (y).

LTM. Environmental monitoring, review of site conditions, and maintenance of a remedial action to ensure continued protection as designed once a site achieves RC. LTM includes the operations and maintenance measures required to maintain the effectiveness of response actions. LTM should be used until no further environmental restoration response actions are appropriate or anticipated. Examples of LTM include landfill cap maintenance, leachate disposal, fence monitoring and repair, performance of 5-year reviews, and LUC maintenance.

LUC. Any type of physical, legal, or administrative mechanism that restricts the use of or limits access to real property to prevent or reduce risks to human health and the environment. Physical mechanisms encompass a variety of engineered remedies to contain or reduce contamination and physical barriers to limit access to property, such as fences or signs. The legal mechanisms used for LUCs are generally the same as those used for institutional controls as discussed in NCP. Legal mechanisms include restrictive covenants, negative easements, equitable servitudes, and deed notices. Administrative mechanisms include notices, adopted local land use plans and ordinances, construction permitting, or other land use management systems to ensure compliance with use restrictions.

MAP. The installation MAP, including equivalent documents, identifies and monitors environmental restoration statutory requirements and schedules, and serves as the basis for an installation's input to overall program planning, budget development, and execution decisions. The MAP describes an integrated, coordinated approach for conducting environmental restoration activities required at an installation.

MC. Defined in subsection 2710(e)(3) of Reference (n).

MEC. Defined in Reference (w).

MILCON. Defined in subsection 2801(a) of Reference (n).

military munitions. Defined in subsection 101(e)(4) of Reference (n).

military range. Defined at subpart 266.201 of Reference (s).

MRA. Defined in subpart 179.3 of Reference (y).

MRCSS. Formerly "chemical safety submission." Defined in Reference (v).

MRESS. Formerly "explosives safety submission." Defined in Reference (v).

MRS. Defined in subpart 179.3 of Reference (y).

MRSPP. Defined in part 179 of Reference (y).

munitions response. Defined in subpart 179.3 of Reference (y).

NDAI. Determinations intended solely to assist the Secretary of the Army in demonstrating its accomplishment of DERP program goals and objectives to the DoD. NDAI signifies a FUDS property or project that meets any of these conditions:

Is not eligible for FUDS program consideration.

Is categorically excluded from the FUDS program.

Contains hazards that were not the result of DoD actions on or before October 17, 1986; pose no threat to human health or safety or the environment; and require no additional environmental restoration activities.

For which the required response action has been completed.

NRI. Harm to a natural resource caused by a release of a CERCLA hazardous substance.

operational range. Defined in subsection 101(e)(3) of Reference (n).

pollutant or contaminant. Defined in section 9601 of CERCLA.

RAB. Defined in chapter 1 of Reference (cm).

RA-C. The period of time in which a response action is being implemented but is not yet operating as designed. At the end of this phase of work, a remedy is in place.

RACR. At an NPL facility, a key RC document prepared to show that remedial action objectives have been achieved at a specific site, group of sites, or an entire installation, BRAC location, or FUDS property, as specified in the DD, and documents that the remedy remains protective. It also serves as a basis for whole or partial NPL deletion.

RA-O. The period of time that a selected remedy must operate before achieving remedial action objectives. At the end of this phase of work, the response is complete.

range. Defined in subsection 101(e)(1) of Reference (n).

range clearance. Defined in DoDI 3200.16 (Reference (co)).

RC. A milestone signifying that the DoD Component has met the remedial action objectives for a site, documented the determination, and sought regulatory agreement. RC signifies that DoD has determined at the end of the PA/SI or RI that no additional response action is required; achieved RIP and the required RA-O has achieved the remedial action objectives; or where there is no RA-O phase, then the RA-C has achieved the remedial action objectives. LTM may occur after RC is achieved.

real property. Land and any right, title, and interest therein and improvements thereon. Rights and interest include easements, rights-of-way, water rights, air rights, and rights to lateral and subjacent support.

reasonable maximum exposure. The highest exposure that is reasonably expected to occur at a site.

remedial action. Defined in section 9601(24) of CERCLA.

removal. Defined in subpart 300.5 of NCP.

response action. Identification, investigation, removal actions, remedial actions, or a combination of removal and remedial actions.

RIP. Designation that a final remedial action has been constructed, is functional, and is operating as planned in the RD and would be expected to meet the remedial action objectives detailed in the DD. Examples of RIP are a soil vapor extraction system or an in situ chemical treatment system that is installed and operating as designed and for which performance data indicate the system will achieve remedial action objectives, thus demonstrating proper operation of the system. Because remedial action objectives have not been met, the site cannot be considered RC.

ROD. The ROD documents the remedial action plan for a site addressed pursuant to CERCLA authority and serves to:

Certify that the remedy selection process was carried out in accordance with CERCLA and, to the extent practicable, with the NCP.

Describe the technical parameters of the remedy, specifying the methods selected to protect human health and the environment including treatment, LUCs, and cleanup levels.

Provide the public with a consolidated summary of information about the site and the chosen remedy, including the rationale behind the selection.

RRSE. A single, consistent DoD-wide approach for evaluating the relative risk to human health and the environment posed by the chemical contamination present at a site. Evaluation of contaminants present, environmental migration pathways, and receptors results in the placement of sites into relative risk categories of “high,” “medium,” or “low.” These categories are used in prioritizing sites and sequencing environmental restoration activities.

SC. The stage at which the DoD has completed active management and monitoring at an environmental restoration site, and no additional environmental restoration funds will be expended at the site. SC occurs when environmental restoration goals have been achieved that allow UU/UE of the property (e.g., no further LTM, including LUCs, is required). Also may be a no further action.

SI. Defined in subpart 300.5 of NCP.

site. A distinct area of an installation containing one or more releases or threatened releases of hazardous substances treated as a discrete entity or consolidated grouping for response purposes. Installations may have more than one site. FUDS projects are the same as sites.

SMAPs. Life-cycle plans for the investigation and environmental restoration at all FUDS within a State.

State. Includes the several States, the District of Columbia, the Commonwealths of Puerto Rico and the Northern Marianas, Guam, American Samoa, and the U.S. Virgin Islands.

TPS. A site never owned by, leased to, or otherwise possessed by the United States Government, never under DoD jurisdiction, and where the DoD is a PRP.

TRC. Defined in subpart 203.3 of Reference (y).

under the jurisdiction of the Secretary of Defense. Includes the Departments of War, Army, Navy, and Air Force prior to the creation of the DoD.

unliquidated obligations. The amount of obligations that have not been paid (disbursements).

United States. Defined in section 9601(27) of CERCLA.

UU/UE. The selected remedy does not include a restriction on land or groundwater use to be protective.

UXO. Defined in subsection 101(e)(5) of Reference (n).

vapor intrusion. The migration of volatile chemical releases from subsurface media (i.e., soil, soil gas, and groundwater) into overlying structures.

volatile organic compounds. Any organic compound that participates in atmospheric photochemical reactions.