

USALSA Report

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Environmental Law Division Notes

The Environmental Law Division (ELD), United States Army Legal Services Agency, produces the Environmental Law Division Bulletin, which is designed to inform Army environmental law practitioners about current developments in environmental law. The ELD distributes its bulletin electronically in the environmental law database of JAGCNET, accessed via the Internet at <http://www.jagcnet.army.mil>.

European Union Moves to Criminalize Environmental Violations

On 13 March 2001, the European Commission “adopted a proposal for a Directive that for the first time would introduce legal sanctions for breaches of environmental law at an EU level.”¹ Under this proposed directive, the European Union (EU) would require that member states criminalize “a range of activities already outlawed by existing EU legislation . . . when committed intentionally or with serious negligence. These offences would include polluting water supplies, various forms of air pollution, trading in protected species and serious damage to protected habitats.”² Environment Commissioner Margot Wallström is quoted in the press release regarding the need for action by the EU as stating:

The public is increasingly concerned about the continuous lack of application of environmental law in Member States It is clear that the question of effective sanctions needs to be narrowly linked to the environmental provision which shall have to be

respected by citizens, economic operators and all actual or potential polluters.³

In the EU, directives are the functional equivalent of statutes, requiring member states to take action. The Commission transmits proposals for legislation simultaneously to the Council of Ministers and to the European Parliament. With respect to environmental matters, the co-decision process found in Article 251 of the Treaty of Maastricht applies.⁴ Essentially both the Council and Parliament have equal footing in enacting, rejecting or amending the Commission’s proposed directive. With regard to environmental matters, both of these bodies must enact a directive before it takes effect.⁵ Major Robinette.

Life After Remedy Selection

In the March 2001 issue of *The Army Lawyer*, the Environmental Law Division Note examined how the Army gets to the stage of selecting a specific cleanup remedy under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).⁶ Such remedies are generally outlined in the cleanup decision document known as the CERCLA Record of Decision (ROD).⁷ For remedial actions, a ROD is issued at facilities on the EPA’s National Priorities List (NPL) as well as at non-NPL sites.⁸ This note looks at what happens after the ROD is signed.

Normally, when a CERCLA ROD is finalized, the Army—as lead agent (LA) in cleanup⁹— would begin the process of constructing and implementing the remedy that has been selected. The overarching requirements in the National Contingency Plan (NCP),¹⁰ and the site-specific terms in the CERCLA

1. See Press Release, Environmental Commission, European Union, Commission Will Support Member States in the Fight Against Environmental Crime (IP/01/358, Mar. 13, 2001), available at http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/01/358/0|AGED&lg=EN (Press Releases – Rapid database).

2. *Id.*

3. *Id.*

4. See Treaty Establishing the European Community, Mar. 25, 1957, art. 251, 298 U.N.T.S. 11, 37 I.L.M. 56 (amended by The Treaty on European Union, Feb. 7, 1992, 1992 O.J. (C 224), 31 I.L.M. 247 (The Maastricht Treaty)), available at http://europa.eu.int/eur-lex/en/treaties/dat/ec_cons_treaty_en.pdf.

5. See *id.* art. 175.

6. 42 U.S.C. §§ 9601-9675 (2000).

7. The selected cleanup remedy is outlined in the ROD. See 40 C.F.R. § 300.430(f) (2000). Sample RODs are available at [http://www.epa.gov/superfund/whatissf/sfproces/rod.htm_\(ROD/\[state\]\)](http://www.epa.gov/superfund/whatissf/sfproces/rod.htm_(ROD/[state])). Additional cleanup actions also may be outlined in an appropriate decision document that follows NCP requirements. For removal actions, this could include an engineering evaluation and cost analysis. 40 C.F.R. § 300.415(b)(4)(i). Decision documents may also include action memoranda. *Id.* § 300.810(a)(4). Actions at sites where information does not prompt concerns over unacceptable risk to human health or the environment may be documented in a No Further Action ROD. OFFICE OF THE UNDER SECRETARY OF DEFENSE, (ENVIRONMENTAL SECURITY), MANAGEMENT GUIDANCE FOR THE DEFENSE ENVIRONMENTAL RESTORATION PROGRAM, para. H.1.a.(1), (1998) [hereinafter MANAGEMENT GUIDANCE].

8. For information on NPL sites, see 40 C.F.R. § 300.425(b).

cleanup ROD, outline how remediation will occur. At the time the ROD is signed, the decision maker is focused on getting the remedy functioning, so the site may be formally closed out. Sometimes, though, one can experience bumps in the road. For example, aspects of the ROD need to be changed or the administrative record may require supplementation. This note will consider such issues and then move on to discuss life after remedy selection.

Remedial Action and Remedial Design

Once the ROD is signed, it is time to carry out the terms of remediation. During this remedial design and remedial action (RD/RA) phase, decision makers and engineers begin the process of designing, constructing and implementing the selected remedy.¹¹ But, the LA is also required to let the public know what it is doing. So, before beginning the RD/RA, the LA should review the ROD's Community Relations Plan (CRP)¹² to determine if cleanup proposals involve any substantive issues that have not been raised before the public. If so, the CRP should be revised and additional public outreach should begin.¹³ Assuming that the NCP's requirements for public involvement have been met, the LA must move forward to ensure that the remedial design and action will meet the terms specified in the ROD.¹⁴ Specifically, the decision maker should ensure that the actions taken will meet the federal and state requirements identified in the ROD as applicable or relevant and appropriate requirements (ARARs).¹⁵ With the exception of these general precepts, though, the NCP provides only a sketchy roadmap for the RD/RA process.¹⁶ This is because

remedial actions and designs are very site-specific.¹⁷ The parties look to the terms of the ROD when determining the proper steps to be taken when implementing a cleanup action.¹⁸ So, we will focus on the ROD and what happens if changes are needed.

A Little About the ROD's Terms

Under CERCLA, the ROD summarizes the reasoning of the decision maker by outlining cleanup options and presenting the terms of the selected remedy. This remedy must be both protective of human health and the environment and it must meet ARARs, unless an ARAR waiver is appropriate.¹⁹ Once the remedy is chosen and the ROD is signed, the ARARs contained in the remedy decision are expected to remain constant—in essence, they are frozen.²⁰ This is done to protect the stability of the cleanup action. A ROD's ARARs are generally not reconsidered unless new facts cast doubt on the remedy's protectiveness or if an ARAR has been replaced with a revised promulgated standard.²¹

Changes to the ROD?

Sometimes, the LA may consider changing the ROD after the document is signed. If new information arises that could affect the selected remedy, the decision maker would consider the nature and extent of those changes.²² Changes can range from small clarifications to fundamental shifts in the cleanup approach, so these scenarios are handled differently. Most

9. For background on the Army's role as CERCLA Lead Agent, see, 40 C.F.R. § 300.5 (1999). See also Exec. Order 12,580, 52 Fed. Reg. 2923 (Jan. 23, 1987). Cleanup responsibilities are also laid out in 42 U.S.C. § 9604(a).

10. See generally 40 C.F.R. pt. 300.

11. *Id.* § 300.435(a).

12. For details on the CRP, see 40 C.F.R. § 300.435(c)(1).

13. *Id.* §§ 300.435(c)(2)(i)-(ii).

14. See O'REILLY, RCRA AND SUPERFUND, A PRACTICE GUIDE WITH FORMS, ENVIRONMENTAL LAW SERIES § 11.19 (2nd ed. 1993) (Remedial Design and Remedial Action).

15. 40 C.F.R. §§ 300.435(b)(1)-(2). For additional information on ARARs, see 40 C.F.R. § 300.400(g).

16. Additional information on the RD/RA process is available on the EPA's Web site at <http://www.epa.gov/superfund>.

17. See O'REILLY, *supra* note 14, at § 12.13.

18. For more information on RODs and their terms, see OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, GUIDE TO PREPARING SUPERFUND PROPOSED PLANS, RECORDS OF DECISION, AND OTHER REMEDY SELECTION DECISION DOCUMENTS (July 1999) [hereinafter OSWER 9200.1-23P], available at <http://www.epa.gov/superfund/resources/remedy/rods/index.htm>.

19. 40 C.F.R. §§ 300.430(e)(9)(iii)(A)-(B). For information on ARAR waivers, see 40 C.F.R. § 300.430(f)(1)(ii)(B)(1).

20. For an extensive analysis of ARARs and their role in decision making, cleanup documentation, and finality, see OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, RCRA, SUPERFUND AND EPCRA HOTLINE TRAINING MODULE: INTRODUCTION TO APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS 6-7 (Updated ed. 1998) (OSWER9205.5-10A), available at <http://www.epa.gov/superfund/contacts/sfhotline/arar.pdf>.

21. 40 C.F.R. §§ 300.430(f)(1)(A)(ii), (B)(ii)(B)(2).

changes boil down to three issues: scope, performance, and cost.²³ These issues involve the following considerations:

Scope: Does the change alter the scope of the remedy? (For example, would it affect the type of treatment technology used, the physical area of the response, the remediation goals or the type or volume of the CERCLA hazardous substances being addressed?);²⁴

Performance: Would the change alter the performance of the remedy? (For instance, would it change the treatment standards or the long-term reliability of the remedy?);²⁵

Cost: Are there significant changes in cost? (For example, suppose costs go up by 50%.);²⁶

Normally, the LA looks at these factors and makes a determination as to whether a change is minor, significant or fundamental. Keep in mind that if multiple changes are expected, they should be examined together; a combination of minor and significant changes could lead, theoretically, to a fundamental change.²⁷ The categories of changes—minor, significant, and fundamental—are discussed below.

Minor Changes

Minor changes are those that would have little to no impact on the overall scope, performance or cost of the selected remedy, but should be documented in the administrative record to update or clarify cleanup plans.²⁸ Examples include minor cost increases or nondisruptive changes in equipment or services.²⁹

Significant Changes

Significant changes are those that could affect part of the CERCLA remedy, without disturbing the ROD's ultimate conclusions.³⁰ In such a situation, terms of the remedial action, such as scope, performance or cost, may shift, but the remedy is not fundamentally altered.³¹ For example, a significant change could be prompted if new evidence led a decision maker to conclude that cleanup waste could not be disposed of at a conventional landfill, but that it must be disposed at a permitted hazardous waste facility.³² Other significant changes may include new promulgated standards that indicate that the ARARs cited in the ROD may not be protective or there is an important shift in land use assumptions (for example, from industrial to residential) that would seriously affect the risk scenarios upon which the remedy is based.³³

22. *Id.* § 300.430(f)(5)(iii)(B). See OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES (Apr. 1991) (Pub. 9355.3-02FS-4) [hereinafter GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES], available at http://www.epa.gov/superfund/tools/topics/relocation/gui_addr.pdf.

23. 40 C.F.R. § 300.435(c)(2).

24. See OSWER 9200.1-23.P, *supra* note 18, para. 7.2 (Types of Post-Record of Decision Changes).

25. *Id.*

26. *Id.*

27. *Id.*

28. 40 C.F.R. § 300.825(a)(2). The NCP is not a model of clarity on the distinctions between post-ROD changes. For additional guidance, see GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES, *supra* note 22, § II (Post-ROD Changes).

29. See O'REILLY, *supra* note 14, § 12-11 (Records of Decision, Amendments).

30. 40 C.F.R. § 300.435(c)(2)(i).

31. *Id.*

32. This scenario envisions the discovery that the residuals in question are hazardous waste governed by RCRA. For more details on post-ROD changes, see GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES, *supra* note 22, § II (Post-ROD Changes).

33. See OSWER 9200.1-23P, *supra* note 18, para. 7.1 (Highlight 7.1, Examples of Post-Record of Decision Changes).

If a significant change occurs, the Army, as LA, would be required to publish an Explanation of Significant Differences (ESD) outlining proposed changes to the remedial action.³⁴ This document is intended for the public and should explain, in plain terms, the reasons behind the new approach.³⁵ Generally, the ESD does not require a full-blown CERCLA analysis of decision-making criteria, but the document should state that the ROD remains protective and will meet ARARs.³⁶ The LA is then required to respond to the public's comments³⁷ but may continue to proceed with pre-design, design, construction and operation phases of the remedy.³⁸ The ESD and supporting information becomes part of the administrative record.³⁹

Fundamental Change

Fundamental changes are major alterations in the scope, performance or cost of the selected remedy.⁴⁰ Generally, this happens when the decision maker anticipates changes in the remedy itself or a dramatic shift in the assumptions that underlie the remedy.⁴¹ For example, fundamental changes may include a decision to use bioremediation of contaminated soil rather than thermal destruction, or a decision not to use an innovative technology because of problems with a pilot test of the program.⁴²

When confronted with a fundamental change to the selected remedy, the LA would be required to amend the ROD.⁴³ The LA is responsible for analyzing and documenting this change in accordance with all of the NCP's decision-making criteria.⁴⁴ ROD amendments trigger a new round of public involvement.⁴⁵ A notice of the amendment to the ROD must be published in a major local newspaper with general circulation and made available to the public in a repository.⁴⁶ A public meeting would also be appropriate.⁴⁷ Once public input has been received, the Army would respond to comments.⁴⁸ These public comments and Army responses regarding a fundamental change to the ROD will become part of the administrative record.⁴⁹

Other Post-ROD Additions to the Administrative Record

Even when the ROD's provisions remain unaltered, it still may be appropriate to supplement the administrative record. For example, the LA may add to the record to explain some aspect of the remedy, to discuss a point that the ROD does not address, or to outline an issue that was reserved for decision after the ROD was signed.⁵⁰

34. 40 C.F.R. § 300.435(c)(2)(i). For more detail on ESDs, see GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES, *supra* note 22, § II (Post-ROD Changes, Explanation of Significant Changes).

35. 40 C.F.R. §§ 300.435(c)(2)(i)(A), (B)(ii).

36. See OSWER 9200.1-23P, *supra* note 18, para. 7.3.2.

37. 40 C.F.R. § 300.825(c).

38. See OSWER 9200.1-23P, *supra* note 18, para. 7.3.2.

39. 40 C.F.R. §§ 300.435(c)(2)(i)(A), 300.825(a)(2).

40. *Id.* § 300.435(c)(2)(ii).

41. See O'REILLY, *supra* note 14, §§12.11, 12.48 (Records of Decision, Amendments).

42. *Id.* See GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES, *supra* note 22, § II (Post-ROD Changes, Highlight 4, Examples of Post-ROD Changes).

43. 40 C.F.R. § 300.435(c)(2)(i)(B)(ii).

44. The NCP's requirements can be found at 40 C.F.R. §§ 300.435(c)(2)(ii)(A)-(H). The portion of the ROD that is being amended would be analyzed in accordance with the nine criteria listed at 40 C.F.R. § 300.430(e)(G)(9)(iii). See OSWER 9200.1-23P, *supra* note 18, para. 7.3.3.

45. 40 C.F.R. § 300.430(e)(G)(9)(iii). See GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES, *supra* note 22, § II (Post-ROD Changes, ROD Amendment).

46. 40 C.F.R. §§ 300.435(c)(2)(ii)(G)-(H).

47. *Id.* § 300.435(c)(2)(ii)(D).

48. *Id.* § 300.435(c)(2)(ii)(F).

49. *Id.*

50. *Id.* § 300.825(a).

When is the Remedy Complete?

Stepping past the issue of ROD changes and returning to the cleanup site, suppose that the LA is well into the remedy's construction and operation. What happens next? At this point, the LA would usually try to estimate the point at which no further remedial action is needed; in other words, when the remedy is complete.⁵¹ Generally, the remedy is considered "operational and functional" within one year after the completion of construction or when the appropriate regulators agree that the remedy is functioning properly and performing as designed—whichever time is earlier.⁵² However, the NCP may require longer site-specific timeframes for remedy completion, particularly if the cleanup involves ground or surface water restoration.⁵³ In such cases, the remedy must be performing properly for up to ten years after construction for the remedy to be considered operational and functional, unless sampling indicates that the water quality has met required standards.⁵⁴ This approach effectively extends the time period estimated for completion of operation and maintenance at such a site.⁵⁵

Despite these alternative timeframes, the need for remedial action generally ends when the perceived threat to human health and the environment has been addressed or when risk-based standards, ARARs, have been met.⁵⁶ Once this has occurred, the LA may focus on specific operation and maintenance

(O&M) measures outlined in the ROD for ensuring that the remedy will remain in place.⁵⁷ This may include the imposition of land use controls that limit the use of a site or restrict access to the property in question.⁵⁸ Once O&M measures are in place and remedial actions are working as intended, the remedy is ready to be formally classified as "operational and functional."⁵⁹ This determination is made with full coordination among the applicable regulators.⁶⁰

Coordinating Site Closeout

Specific closeout requirements will differ depending on whether the site in question is on the National Priorities List (NPL)⁶¹ or is a non-NPL site. One of the main differences between these categories is whether the EPA or State regulators would become the primary touchstone for communication.⁶²

If a site is listed on the NPL, the Army works directly with the EPA (though often with the assistance of state regulators) to outline how remediation goals have been met.⁶³ A site on the NPL involves specific closeout steps.⁶⁴ For example, if the goals of remediation have been met, the site is delisted.⁶⁵ The LA specifically initiates EPA delisting procedures to get the site off the NPL.⁶⁶ Normally, a site is not deleted from the NPL unless it is determined that all required actions have been taken

51. It is possible that site-closeout could begin before the RD/RA phase—if it is clear that no further cleanup is needed. See OSWER 9200.1-23P, *supra* note 18, ch. 8.0 (Documenting No Action, Interim Action, and Contingency Remedy Decisions).

52. 40 C.F.R. § 300.435(f)(2).

53. *Id.* § 300.435(f)(3). For more information on cleanup decisions dealing with groundwater contamination, see OSWER 9200.1-23P, *supra* note 18, para. 9.4 (Documenting Groundwater Remedy Decisions).

54. 40 C.F.R. §§ 300.435(f)(3)(i)-(iii).

55. *Id.*

56. *Id.* § 300.430(f)(ii)(B).

57. *Id.* §§ 300.430(f)(1), 300.435(f).

58. Land Use Controls (LUCs) can include restrictions on how the property is used in the future. For example, if a cleanup remedy is based on the assumption that land is slated for industrial use, an inconsistent use (daycare) would not be appropriate. The LUCs may also include prohibitions against tampering with a remedy, or using fences and other means to limit activities at the site in question. See Memorandum, Deputy Under Secretary of Defense (Environmental Security), DUSD (ES/CL), to Assistant Secretaries of the Army, Navy, Air Force, and Director Defense Logistics Agency, subject: Policy on Land Use Controls Associated with Environmental Restoration Activities, para. 2 (17 Jan. 2001) [hereinafter LUC Memo] (Definition).

59. 40 C.F.R. § 300.435(f)(1).

60. *Id.* § 300.435(f)(2).

61. See generally *id.* § 300.425(b). Sites may be placed on the NPL if they score high under EPA's hazard ranking system. See 42 U.S.C. § 9605(c) (2000). This system is used to roughly assess threats associated with actual or potential CERCLA releases. O'REILLY, *supra* note 14, §12.04 (National Priorities List).

62. In general, the Army would work primarily with the EPA at NPL sites, while it would coordinate with state regulators at non-NPL sites. See generally 40 C.F.R. §§ 300.500, 300.515.

63. *Id.* §§ 300.515(e)(1), (2)(i)-(ii).

64. Specific terms for NPL site closure would generally be spelled out in a federal facility agreement negotiated between the Army and the EPA. See 42 U.S.C. § 9620(e)(2).

and that the site poses no unacceptable risk to human health or the environment.⁶⁷ Proposals to delete an NPL site must also be published to allow for public involvement with the decision.⁶⁸

At non-NPL sites, where Army is the LA for cleanup decisions, the process of closeout is more flexible. When the cleanup reaches its final stages at non-NPL sites, the Army works together with the state where the site is located to discuss terms of closure.⁶⁹ Similarly, when moving towards site closeout, the Army also coordinates with the site's Restoration Advisory Board (RAB), if one has been formed.⁷⁰ After this coordination, the Army normally seeks written regulatory concurrence, which provides that cleanup goals have been met.⁷¹ In addition, during the process of closeout at both NPL and non-NPL sites, the relevant parties look to technical and administrative mechanisms to assure that O&M requirements, such as

land use controls, are maintained.⁷² These O&M and LUC mechanisms help ensure that the remedy remains in place.⁷³

Life After Remedy Completion

If the residual contamination is expected to remain at a site after cleanup is complete, the Army is required to conduct reviews of the remedy every five years.⁷⁴ The five-year review requirement is triggered when the decision maker selects a remedial action that "results in any hazardous substances, pollutants, or contaminants remaining at the site . . ."⁷⁵ if they are "above levels that allow for unlimited use and unrestricted exposure . . ."⁷⁶ Such reviews are undertaken to ensure that: (1) The assumptions underlying that remedy remain valid;⁷⁷ (2) The remedy remains protective and fully functional;⁷⁸ and (3) The remedy remains cost effective.⁷⁹

65. See O'REILLY, *supra* note 14, § 11.06 (National Priorities Delisting). For general information on delisting procedures, see OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, CLOSE OUT PROCEDURES FOR NATIONAL PRIORITIES LIST SITES (Jan. 2000) (OSWER Dir. 9320.2-09A-P), available at <http://www.epa.gov/superfund/resources/closeout/index.htm>. For specific delisting requirements, see OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, DIRECT FINAL PROCESS FOR DELETIONS (STREAMLINING THE DELETION PROCESS) (Oct. 2000) (OSWER Dir. 9320.2-12-FS-P), available at <http://www.epa.gov/superfund/resources/deletion/deletion.pdf>.

66. 40 C.F.R. § 300.425(e)(4).

67. *Id.* §§ 300.425(e)(1)(i)-(iii), (e)(4).

68. *Id.* §§ 300.425(e)(4)-(5) If the site has a Restoration Advisory Board, the Army would also coordinate with this Board.

69. Terms on closeout between the Army and state may be found in both the site-specific CERCLA ROD and the applicable Defense State Superfund Memorandum of Agreement (DSMOA). For more information on DSMOAs, see MANAGEMENT GUIDANCE, *supra* note 7, para. N.2. The NCP requirements may be found at 40 C.F.R. § 300.505.

70. For assistance on RAB coordination, see MANAGEMENT GUIDANCE, *supra* note 18, para. L.

71. It is in the Army's interest to work closely with the community, as well as the applicable federal and state regulators, to achieve a consensus as to whether a cleanup can be considered complete. *Id.* para. N.1.c.(4). This determination should be in writing to provide a level of finality.

72. 40 C.F.R. § 300.435(f)(1). This is one of the few times that the NCP refers to "institutional controls." For more detailed assistance, DOD has provided a number of documents discussing land use controls, outlining the legal mechanisms used to maintain these requirements. See LUC Memo, *supra* note 58, para. 4 (Policy), encl. 1 (Policy on Land Use Controls Associated with Environmental Restoration Activities for Property Planned for Transfer Out of Federal Control); Memorandum, Principal Assistant Deputy Under Secretary of Defense (Environmental Security), DUSD(ES/CL), to Assistant Secretaries of the Army, Navy, Air Force, and the Director, Defense Logistics Agency, subject: Guidance on Land Use Control Agreements with Environmental Regulatory Agencies (2 Mar. 2001). These are available on the Defense Environmental Network & Information eXchange Web site (DENIX) at <http://www.denix.osd.mil>.

73. The LUCs include physical, legal or administrative mechanisms that restrict property use or access. The LUCs often involve engineering controls, which are physical means of restriction, such as fences, signs, guards, or surveillance equipment, and institutional controls (ICs), which are legal mechanisms limiting access or use of property. The ICs encompass a variety of legal mechanisms, including deed restrictions, easements, restrictive covenants, notices, construction and dig permits, zoning, and others. See LUC Memo, *supra* note 58, para. 2 (Definition); B. Schafer, ENVTL. MONITOR, Fall 1999, at 6. An outline of EPA's approach to O&M is available at <http://www.epa.gov/superfund/whatissf/sfproces/opmtc.htm>.

74. 42 U.S.C. § 9621(c) (2000).

75. *Id.*

76. 40 C.F.R. § 300.430(f)(4)(ii).

77. DEP'T OF THE ARMY INFORMATION MANAGEMENT (DAIM), INTERIM ARMY GUIDANCE FOR CONDUCTING CERCLA FIVE-YEAR REVIEWS, para. 6b (5 Apr. 2000) [hereinafter DAIM INTERIM GUIDANCE], available at www.denix.osd.mil.

78. *Id.* For a list of EPA publications on CERCLA five-year reviews, see <http://www.epa.gov/tio/products/compend/post-rem.htm>.

79. The Army is required to determine that its cleanup funds are being spent properly. See DAIM INTERIM GUIDANCE, *supra* note 77, paras. 5a, 6b(8). Note that five-year reviews on active and Base Realignment and Closure sites will involve different funding sources.

If the five-year review reveals a problem with the selected remedy or if new information arises that calls into question the protectiveness of the remedy, the reviewer considers whether

the ROD's terms should be amended.⁸⁰ Conversely, the Army may stop doing five-year reviews when such inspections are no longer needed.⁸¹ Ms. Barfield.

80. The CERCLA gives a Lead Agent the authority to take steps to make sure the remedy remains protective if a periodic review reveals a problem. *See generally* 42 U.S.C. §§ 9604(a)-(b), 9604(e), 9620.

81. For more information on when it is proper to terminate five-year reviews at a given site, see DAIM INTERIM GUIDANCE, *supra* note 77, para. 5e.