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Institutional Controls—An Expedited and Cost-Effective Means for Returning a Superfund Site to Beneficial Use

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The Government has spent \$15 billion on the Superfund¹ program since 1981 and continues to spend almost \$2 billion a year, with costs frequently exceeding \$10 million an acre. Yet only 180 sites have completed cleanups by 1993, with 65 to 70 additional sites expected to achieve cleanup each coming year.² A growing consensus is emerging among local communities,³ states,⁴ and the federal government,⁵ including the Environmental Protection

¹ The term "Superfund" is the commonly used reference to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, §§ 101-405, 42 U.S.C. §§ 9601-9675 as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, §§ 1-531, 100 Stat. 1613-1782 (1986) (amending scattered sections of 42 U.S.C. §§ 9601-9675).

^a See Keith Schneider, What Price Cleanup? New View Calls Environmental Policy Misguided, N.Y. TIMES, Mar. 21, 1993, § 1, at 1 [hereinafter What Price Cleanup].

⁸ Communities such as Bartlesville, Oklahoma and Aspen, Colorado have actively opposed cleanup of contaminated sites within their boundaries under the Superfund program. See, e.g., Keith Schneider, A White Knight Tarnished, N.Y. TIMES, Sept. 6, 1993, § 1, at 7 [hereinafter A White Knight Tarnished].

⁴ Even Jim Florio, former Governor of New Jersey and a principal author of the Superfund law, has questioned the use of Superfund resources to make all sites pristine. *See What Price Cleanup, supra* note 2 (quoting Florio as saying: "It doesn't make any sense to clean up a rail yard in downtown Newark so it can be a drinking water reservoir").

^o As recently as December of 1992, the General Accounting Office focused on the difficulty of supporting the ever-increasing costs of the Superfund program as federal resources become more limited: "The federal government cannot afford to spend the hundreds of billions of dollars expected to be needed to clean up Superfund sites without good assurance that this level of funding is appropriate." UNITED STATES GENERAL ACCOUNT-ING OFFICE. GAO/HR-93-10, SUPERFUND PROGRAM MANAGEMENT 35 (1992).

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Agency (EPA),⁶ that Superfund sites must be returned to beneficial uses faster and at less cost.⁷ The reauthorization process⁸ offers an opportunity to improve the Superfund program.⁹

Institutional controls, which are restrictions on the use of land or water imposed at a Superfund site, are one mechanism for returning Superfund sites to beneficial uses within their communities faster, more efficiently, and at less cost. The track record of the Superfund program shows that institutional controls ultimately have been imposed as a necessity to protect health and the environment at the majority of Superfund sites. Returning Superfund sites to beneficial uses faster should significantly reduce opposition from local communities which are increasingly and actively opposing Superfund cleanups within their boundaries,

⁷ A New York Times commentator has described the recent consensus for Superfund reform:

Now a new Administration intent on strengthening environmental policy is settling into office when competition for scarce financial resources is keen. At the same time, a wealth of new research shows that some of the nation's environmental protection efforts are excessively $costly \ldots$. This view is the vanguard of a new, third wave of environmentalism that is sweeping across America \ldots . [L]eaders of the nation's conservation organizations believe the new view is misguided \ldots . Still, in the last few years the wave has moved into universities, city halls, state capitols and even to the highest levels of the EPA.

What Price Cleanup, supra note 2.

⁸ In October of 1990, the 101st Congress approved a three-year extension of the Superfund program and a four-year extension of Superfund tax authority as part of a comprehensive budget bill, House Bill 5835, which did not include any substantive changes to the Superfund program. The Superfund program expires on September 30, 1994 and the taxes that fuel much of the program expire on December 31, 1995. See CERCLA § 111, 42 U.S.C. § 9611 (1988 & Supp. IV 1992).

⁹ The EPA emphasized its commitment to Superfund reform:

This point in Superfund history presents the Clinton Administration, Congress, EPA, and the public an opportunity to evaluate how the program has worked over the last dozen years and to make changes that will improve Superfund in the future. The Agency is committed to making such changes, whether they are administrative changes which can be implemented by EPA on its own, or legislative changes that must be enacted by Congress.

⁶ See UNITED STATES ENVIL. PROTECTION AGENCY, EXEC. SUMM. SUPERFUND AD-MINISTRATIVE IMPROVEMENTS, 1 (June 23, 1993) [hereinafter ADMINISTRATIVE IMPROVE-MENTS] (stating that the "EPA recognizes that the Superfund program has also generated criticism [with] specific criticisms focus[ing] on the pace and cost of cleanup, [and] the degree to which sites are cleaned up"); see also A White Knight Tarnished, supra note 3 (relating Robert Sussman's, the Deputy EPA Administrator and chair of the Clinton Administration's Superfund Steering Committee, predictions that "the Administration is likely to champion a host of significant changes for making Superfund cleanups less expensive and easier").

ADMINISTRATIVE IMPROVEMENTS, supra note 6, at 1.

fearing the costs, lengthy disturbances, and stigma to their communities.¹⁰ Although institutional controls are effective in restricting public use of land and water at or near the Superfund site, conversely, they may also increase the Superfund site's value to the community and the community's role in the remedy selection process. Institutional controls allow affected lands to return to either business or recreational uses faster, thus improving local property values¹¹ and allowing jobs and businesses to return to the site or encouraging sustainable industry to locate within the affected area. Even former Superfund sites located within predominantly residential areas may present a community with a large land area suitable for desirable future land-use options, such as a golf course, wildlife area or park, or airport expansion, so long as institutional controls are in place to protect public health and the environment as necessary.¹²

Part I of this article describes the flexible concept of institutional controls and identifies what types of land and water use restrictions are available and how they are typically implemented at Superfund sites. Part II examines the role of institutional controls under the current Superfund scheme. Part III explores the nearly full spectrum of roles contemplated for institutional controls within the first wave of Superfund reform proposals from the administrative branch, the legislature, and private entities. This article concludes that the EPA's initial proposal for Superfund rem-

¹⁰ The New York Times told of one local community, Metamora, Michigan, where support for Superfund cleanup activities turned to opposition in A White Knight Tarnished, supra note 3. When remedial activities began at the Metamora landfill in 1984, local residents had not been exposed to hazardous chemicals which had been buried at the site, and only traces of contamination were identified in a shallow aquifer. Environmental quality in the vicinity of the site degraded, however, when the wastes were excavated. In addition to increased exposure to the now-excavated hazardous substances, the local community endured noxious smells, noise, and traffic congestion as a result of the remedial activities. Cleanup has cost \$36 million to date, with the EPA estimating that at least 35 million additional dollars are required to handle the thousands of excavated barrels and buried barrels that remain onsite.

¹¹ See generally Jenifer S. Heath, Remedial Strategies Should Enhance Property Value, in 5 HAZARDOUS WASTE STRATEGIES UPDATE 12, 20 (1993).

¹³ The Rocky Mountain Arsenal is a large Department of Defense site within an urban area that has been labelled one of the most toxic sites in the nation. See 138 Cong. REC. S14093 (daily ed. Sept. 18, 1992) (statement of Sen. Brown). The Rocky Mountain Arsenal National Wildlife Refuge Act of 1992 was passed to allow this site to return immediately to beneficial use as a wildlife area through the incorporation of a variety of perpetual restrictions, including a ban on residential or industrial use and a drinking water ban. 16 U.S.C. § 668dd (1993); see generally David F. Coursen, Institutional Controls at Superfund Sites, 23 Envtl. L. Rep. (Envtl. L. Inst.) 10,279 (May 1993).

edy selection reform presents the best vision for the appropriate role of institutional controls under a reauthorized Superfund program. The EPA's proposal elevates the role of cost-effective response measures, such as institutional controls equal to or greater than treatment measures during remedy selection if appropriate for a site (based on whether the community has identified the future use of the site as residential or restricted), to expedite the site's return to beneficial use.

I. INSTITUTIONAL CONTROLS ARE SITE-SPECIFIC USE RESTRICTIONS

Institutional controls, most simply stated, are legal or barrier restrictions on the public's use of land or water in the vicinity of a site subject to cleanup under federal or state law. Although frequently and widely used at Superfund sites, neither the 1980 CERCLA, the 1986 SARA amendments to CERCLA, nor the EPA's accompanying regulations, have defined institutional controls. Moreover, the EPA has issued little guidance specifically addressing institutional controls.¹³ The lack of either a rigid definition or regulatory criteria allows institutional controls to be a flexible concept, adaptable to the needs of each specific Superfund site. For example, institutional controls may be as temporary or permanent in duration as needed. At many sites they are used as an interim protective measure before or during remedial actions or between a removal and subsequent remedial action. Other sites where residual hazardous substances remain onsite after cleanup may require perpetual maintenance institutional controls.

¹³ Memorandum from Howard Corcoran, Associate General Counsel, Grants, Claims, and Intergovernmental Division. U.S. Envtl. Protection Agency, to Regional Counsels (July 27, 1992) (on file with JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW) (regarding use of institutional controls at Superfund Sites)[herinafter OGC Institutional Controls Memo]. Before the EPA issued the OGC Institutional Controls Memo, several other EPA guidance documents had peripherally discussed institutional controls. See OFFICE OF EMERGENCY & REMEDIAL RESPONSE, U.S. ENVTL. PROTECTION AGENCY, OSWER DIREC-TIVE 9283.1-2. GUIDANCE ON REMEDIAL ACTIONS FOR CONTAMINATED GROUND WATER AT SUPERFUND SITES 5-4 (DEC. 1988); Memorandum from Don R. Clay, Assistant Administrator, U.S. Envtl. Protection Agency, to Regional Administrators, Regions I-X and various Regional Directors (Dec. 3, 1988) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW) (discussing the policy on management of post-removal site control and defining institutional controls as "controls which generally limit human activities at or near facilities where hazardous substances, pollutants, or contaminants exist or will remain on-site").

An institutional control is an umbrella concept which incorporates a wide variety of mechanisms that restrict access or use of land and water to some degree. Barrier restrictions, such as fencing, warning signs, and security personnel, are the most basic, and widely used type of institutional control. Other types of institutional controls accomplish the following: restrict the use of ground water for drinking or agricultural purposes, such as well construction bans or permits, well use advisories, and water quality certification requirements: restrict the use of land and disturbance to soil through mechanisms such as excavation or building ordinances and deed notices or restrictions; or restrict access to surface water. At least one Superfund site has expanded the institutional control concept to include "community protection measures," public policy and education programs designed to restrict or minimize the public's exposure to residually contaminated media by increasing public awareness.¹⁴

Institutional controls may be imposed at a Superfund site by governmental entities or private parties, typically landowners named as potentially responsible parties (PRPs).¹⁶ Section 104 of CERCLA authorizes the EPA to implement institutional controls indirectly through other entities such as state or local governments, or more rarely, directly at the site.¹⁶ Because water and use restrictions fall within the traditional police powers of state and local governments, the EPA commonly enters into cooperative agreements, pursuant to Section 104(d), with state or local governments for those entities to implement and to enforce institutional controls, or enters into Superfund State Contracts in which

¹⁴ See generally Draft from ICF Technology Inc., to Region X, Hazardous Waste Management Division, U.S. Envtl. Protection Agency (May 1991) (on file with JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW) (discussing community protection measures for the Ruston/North Tacoma Residential Study Area). Early in the remedy selection process for the Ruston/North Tacoma Residential Study Area). Early in the remedy selection process for the Ruston/North Tacoma Residential Study Area, an operable unit at the Commencement Bay/Nearshore Tideflats Superfund Site located in Tacoma, Washington, the EPA had anticipated that community protection measures would be a necessary component of the remedy selected at the Site, *id.* at 1-4. The study area covered approximately 950 acres of mostly residential land use within a one and one-half mile radius of the Asarco Tacoma Smelter, *id.* at 1-1.

¹⁵ The current landowner is one of four categories of potentially responsible persons (PRPs) that may be liable under CERCLA § 107(a), 42 U.S.C. § 9607(a)(1988 & Supp. IV 1992).

¹⁶ 42 U.S.C. § 9604(a) allows the EPA to undertake response actions directly that are consistent with the NCP, such as the implementation of institutional controls. The EPA could also impose use controls directly after it acquires the real property interests at a site under 42 U.S.C. § 9604(j).

the state, pursuant to Section 104(c), assures the EPA that it will operate and maintain a remedy (including enforcing institutional controls). To implement and enforce institutional controls, state governments typically will enact statutes or regulations, and local governments will either enact ordinances specifically restricting activities such as excavation, building, or soil disturbance or utilize their zoning powers to restrict certain types of land use. In any case, an intergovernmental approach is required because Superfund does not give EPA the power or duty to maintain or

The EPA may require private parties to impose institutional controls upon their affected property under the authority of Section 106 of CERCLA, which allows the EPA to issue "orders as may be necessary to protect public health and welfare and the environment."¹⁸ Private landowners may also voluntarily encumber their property with use restrictions, usually by entering into a consent decree or other contractual arrangement with the EPA.¹⁹

administer a site after cleanup is completed.¹⁷

II. THE ROLE OF INSTITUTIONAL CONTROLS UNDER THE CURRENT SUPERFUND SCHEME

The term "institutional controls" is not mentioned within the Superfund statute and remains undefined and unexplained within the EPA's Superfund regulations. Nevertheless, for more than a decade, the EPA has authorized the use of institutional controls at many Superfund sites. Before the 1986 SARA amendments, the Superfund program focused on identifying immediate threats and reducing risks by imposing relatively inexpensive response measures, such as institutional controls and containment. In 1986 alone, the EPA approved more than 20 cleanup plans which incor-

¹⁷ 42 U.S.C. § 9622(c) merely directs the EPA to review remedial action taken at a Superfund site at least every five years to determine whether the remedy is adequately protecting public health and the environment.

^{18 42} U.S.C. § 9606.

¹⁹ Proprietary restrictions imposed by private property owners are less common, and carry more risks, than restrictions imposed by governmental entities. Private party land-owners will rarely voluntarily encumber their property with use restrictions in the absence of a legal obligation to do so. Moreover, such encumbrances are subject to the requirements of the state law in which the property is located. For example, the encumbrance must not be so restrictive that it is prohibited as a restraint on alienation. See generally OGC Institutional Controls Memo, *supra* note 13. Nevertheless, there are sites where a private party has sufficient resources and control over the land and influence within the community to impose institutional controls successfully, such as the Whitewood Creek, South Dakota Superfund Site. See infra note 34.

porated institutional controls.²⁰ The EPA first described the concept of use restrictions as a component of a remedy and utilized the terms "institutional controls," "institutional considerations," and "institutional means" within the 1988 Preamble to the Proposed National Oil and Hazardous Substances Pollution Contingency Plan (NCP)²¹ and subsequently within the 1990 Preamble to, and the text of, the Revised NCP regulations.²²

Although the current Superfund statute does not mention the term "institutional controls," it does recognize the need for temporary or perpetual use restrictions at many Superfund sites. For example, Section $121(c)^{23}$ recognizes that even well-designed and well-performed remedial cleanup actions may inevitably leave some hazardous substances remaining at a site. In certain situations, remediation technology limitations²⁴ or certain site-specific

United States' June 7, 1988 Response to Comments Received on the Proposed Consent Decree of February 1, 1988, United States v. Shell Oil Co., 650 F. Supp. 1064 (D. Colo. 1988) (No. 83-C-2379).

²¹ See Preamble to the Proposed NCP, 53 Fed. Reg. 51,394 (1988). The NCP, promulgated by the EPA pursuant to 42 U.S.C. § 9605(a)(8)(B) and codified within 40 C.F.R. pt. 300 establishes operating rules for Superfund cleanups.

²² See Preamble to the Revised NCP, 55 Fed. Reg. 8,703 (1990) (codified at 40 C.F.R. § 300.430).

²³ 42 U.S.C. § 9621(c).

²⁴ Even if cost is not a factor, remedial technology may not be adequate to achieve cleanup standards or a reasonable timetable for cleanup at sites where a variety of contaminants or mixed contaminated media (e.g. soil, water, sludges) are present, or for sites requiring long-term treatment actions (e.g. pump and treat groundwater sites). For example, metals contained within contaminated media may prohibit that media from being incinerated to destroy organic contaminants. The EPA has acknowledged that pump and treat remedial actions, the most common treatment remedy for groundwater contamination to date, may not clean up an aquifer to standards because "hydrogeologic and contaminant characteristics as well as system design factors... may impede the ability of extraction systems to achieve appropriate cleanup levels over the entire area of contamination." Memorandum from Don R. Clay, Assistant Administrator, Office of Solid Waste and Emergency Response, Considerations in Groundwater Remediation at Superfund Sites and

²⁰ As acknowledged by the EPA in the Consent Decree for United States v. Shell, more than 20 cleanup plans approved by EPA in 1986 incorporated some type of institutional controls:

A review of records of decisions approved by EPA in a single year, 1986, discloses that over 20 cleanup plans incorporated some type of institutional controls—including zoning restrictions to limit certain types of development (one site); deed restrictions to prohibit specific lands uses (six sites); deed restrictions to prohibit consumptive use of groundwater (four sites); creation of economic incentives for well owners to discontinue the use of their wells (one site); other types of institutional restrictions for the use of groundwater wells (four sites); owner enforced restrictions on site access (three sites); and various other types of regulatory constraints on uses of land and groundwater.

practical or community-based limitations²⁶ may result in residual contamination left at the site. Moreover, Section $104(c)^{26}$ requires that before the EPA provides remedial action at a site, the state in which the site is located must provide certain assurances, including an assurance of all future maintenance.

Section 121(b) of CERCLA²⁷ sets general rules requiring that the remedy selected for a Superfund site be based on permanent treatment technologies (to the maximum extent practicable). be protective of human health and the environment, as well as be cost effective²⁸ and appropriate.²⁹ Of these rather contradictory directives, the EPA has emphasized the preference for treatment technologies rather than more cost-effective measures, such as institutional controls, which reduce exposure to or limit the adverse affects of hazardous pollutants rather than providing a permanent remedy.³⁰ From 1988 to 1990 when revising the NCP, the EPA did establish two roles for institutional controls: (1) to supplement the chosen remedy, such as when some waste is left in place as it is in most response actions; or (2) as the sole remedy when active response measures are not practicable and institutional controls may be the only means available to provide protection to the public.³¹ The EPA's most common use of institutional controls is as

²⁷ 42 U.S.C. § 9621(b).

²⁹ The NCP further discusses what remedies or combinations of remedies are appropriate for various situations. 40 C.F.R. § 300.430(a)(iii).

³⁰ The EPA's highest preference during remedy selection is for treatment-based remedies: "EPA expects to use treatment to address the principal threats posed by a site, wherever practicable. Principal threats for which treatment is most likely to be appropriate include liquids, areas contaminated with high concentrations of toxic compounds, and highly mobile materials." 40 C.F.R. § 300.430 (a)(iii)(A).

³¹ See Preamble to the Revised NCP, 55 Fed. Reg. 8,703, 8,706, 8,711, 8,734 (1990). The EPA acknowledged that institutional controls could help the EPA achieve its mandate to protect human health and the environment:

The mandate for remedies that protect human health and the environment can be fulfilled through a variety or combination of means. These means include ..., the application of treatment technologies. Protection can also be

RCRA Facilities—Update 2 (May 27, 1992)(OSWER Directive 9283.1-06) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW). Institutional controls also may be necessary in conjunction with innovative onsite remedial technologies such as bioremediation, chemical extraction or treatment, thermal desorption, *in situ* soil flushing, and vacuum extraction, that also may leave residual waste materials.

²⁶ Various communities have opposed onsite incineration or offsite transportation of the waste through the community to a suitable disposal area even when those remedial actions may be the most effective. See A White Knight Tarnished, supra note 3.

²⁶ 42 U.S.C. § 9604(c).

²⁸ The NCP instructs that: "[a] remedy shall be cost-effective if its costs are proportional to its overall effectiveness." 40 C.F.R. § 300.430(f)(1)(ii)(D) (1992).

an integral component of a remedy, implemented after a treatment technology is utilized to protect the public from any residual risk remaining at the site.

Although institutional controls have been selected for a wide variety of geographic areas, they may be particularly appropriate at Superfund sites that are very large in size, that contain large volumes of low concentrations of potentially toxic material, where implementation of a treatment-based remedy would result in greater overall risk to human health or the environment rather than the management in place or would be made at a disproportionately large cost, or where a treatment technology is not technically feasible or is not available within a reasonable time frame.³² The EPA has identified large municipal landfills or mining waste sites as particular areas where treatment-based remedies might not be applicable.³³ For example, a variety of institutional controls were recommended as appropriate for the Whitewood Creek, South Dakota site, an "18-mile stretch of a river and adjacent floodplains and woodlands" which included vast amounts of tailings materials containing low concentrations of metals.³⁴

The track record of the Superfund program demonstrates that the EPA ultimately approves institutional controls as a necessary part of the final remedy at many sites. By 1991, institutional controls had been considered within the Records of Decision of nearly 250 Superfund sites located in every EPA region.³⁵

provided in some cases by controlling exposure to contaminants through engineering controls (such as containment) and/or institutional controls which prevent access to contaminated areas.

55 Fed. Reg. 8,703 (emphasis added); see also 40 C.F.R. § 300.430(a)(iii)(C)-(D) (1992). The NCP's provisions concerning the use of institutional controls withstood a challenge by states in Ohio v. United States EPA, 997 F.2d 1520, 1536-37 (D.C. Cir. 1993) (noting that any remedy, including institutional controls, must meet the threshold requirement of protectiveness).

³² See Preamble to the Revised NCP, 55 Fed. Reg. 8,703 (1990).

³³ See Preamble to the Proposed NCP, 53 Fed. Reg. 51,422, 51,423 and 51,427 (1988).

³⁴ See REGION VIII, U.S. ENVTL. PROTECTION AGENY, FEASIBILITY STUDY FOR THE WHITEWOOD CREEK, SOUTH DAKOTA SUPERFUND SITE: A DISCUSSION OF THE USE OF INSTITUTIONAL CONTROLS, INCLUDING LAND USE RESTRICTIONS IMPLEMENTED THROUGH ZONING REGULATIONS AND DEED RESTRICTIONS, AS SUPERFUND REMEDIAL MEASURES, app. D, at 5 (Dec. 8, 1989) (on file with author); see also 55 Fed. Reg. 42,278 (1990) (notice of lodging of consent decree in United States v. Homestake Mining Co., No. 90-5101 (D. S.D. 1990)).

³⁶ See, e.g., 21 Envil. L. Rep. (Envil. L. Inst.) 30000:48 (Aug. 1991) (listing Record of Decision documents by EPA region which have addressed institutional controls).

III. THE ROLE OF INSTITUTIONAL CONTROLS UNDER THE FIRST WAVE OF REAUTHORIZATION PROPOSALS

A. The Administration's Reauthorization Activities

The EPA has acknowledged that the Superfund program must be changed to allow sites to be cleaned up faster and at less cost.³⁶ While some reform measures may be affected administratively within the current Superfund framework,³⁷ the majority of significant reforms will require congressional amendments to Superfund during the reauthorization process.³⁸

The Clinton Administration's first legislative reform effort was to form an advisory group made up of a broad segment of Superfund stakeholders, the Superfund Evaluation Subcommittee within the National Advisory Committee on Environmental Technology and Policy (NACEPT).³⁹ By October of 1993, the

³⁸ Although the interagency groups suggested administrative improvements to Superfund that the EPA could implement immediately, the EPA also continued to assess legislative reform. ADMINISTRATIVE IMPROVEMENTS, *supra* note 6, at 2-3.

³⁶ See Administrative Improvements, supra note 6.

³⁷ The Clinton Administration first explored potential administrative improvements to Superfund by establishing two interagency groups: (1) the Superfund Administrative Improvements Task Force (Task Force); and (2) the Superfund Steering Committee (Steering Committee). See ADMINISTRATIVE IMPROVEMENTS, supra note 6, at 1-2. The Task Force includes representatives from the Office of Solid Waste and Emergency Response (OSWER), the Office of Enforcement (OE), the Office of General Counsel (OGC), the Office of Policy, Planning and Evaluation (OPPE), the Office of Administration and Resources Management (OARM), the Office of Congressional and Legislative Affairs (OCLA), the Office of Research and Development (ORD), EPA Region II, EPA Region V, EPA Region IX, and the Department of Justice (DOJ). The Steering Committee, chaired by EPA Deputy Administrator Robert Sussman, oversees both legislative and administrative Superfund reform and includes officials from OSWER, OE, OGC, OPPE, OARM, OCLA, ORD, EPA Region II, EPA Region III, EPA Region VI and DOJ.

The specific initiatives and action items developed by these groups by June 1993 made no mention of institutional controls. With input from the Steering Committee, the Task Force had developed nine specific initiatives, along with specific action items to improve the Superfund program. See ADMINISTRATIVE IMPROVEMENTS, supra note 6, at 4-9. Although not acknowledged by these interagency workgroups, expanding the role of institutional controls during remedy selection could have been listed as an action item for accomplishing Initiative 5, "Streamlining and Expediting the Cleanup Process," and Initiative 8, "Early and More Effective Community Involvement." ADMINISTRATIVE IMPROVEMENTS, supra note 6, at 4-9.

³⁹ See ADMINISTRATIVE IMPROVEMENTS, supra note 6, at 3 (describing the NACEPT Subcommittee as including state and local governments, private industry, insurers, local and minority community groups, and environmental groups). Carol Browner, EPA Administrator, has explained NACEPT's purpose is to "assure that EPA is fully informed about the views of outside parties ... [and encourage] ... broad public dialogue on how Superfund can be improved." Reauthorization of Superfund: Hearings Before the Sub-

NACEPT Subcommittee had concluded its examination of Superfund reform and within its position paper on remedy selection reform, specifically identified institutional controls as an important and necessary tool for reducing the costs and time of cleanups. In particular, the diverse members of the NACEPT Subcommittee reached a consensus that remedy selection should be based on current and future land uses and that "legal vehicles [such as institutional controls] to ensure that land use restrictions remain in place in perpetuity . . . are needed to implement landuse based decisionmaking."40 The views held by the NACEPT Subcommittee members diverged, however, on whether or not permanence and treatment should continue to be favored over more cost-effective remedy components, such as institutional controls, within the Superfund remedy selection process.⁴¹ The industry participants asserted that where institutional controls are sufficient to meet the health and environmental standards, they should be considered on an equal basis with treatment options.⁴² Although the NACEPT Subcommittee did not endorse or develop specific proposals in 1993, its conclusions may provide support for the position the Clinton Administration ultimately adopts.

Since June of 1993, the Clinton Administration's interagency task force has vigorously debated the significant Superfund reform issues, working towards development of a united proposal for Superfund reauthorization from the administrative branch. In early 1994, this task force purportedly agreed to the EPA's explicit proposal for allowing greater use of containment and institutional controls by shifting the emphasis from permanence to "long-term reliability and cost-effectiveness."⁴⁸ The EPA's propo-

Id. at 4.

42 Id.

comm. on Superfund, Recycling, and Solid Waste Management of the Senate Comm. on Environment and Public Works, 103rd Cong., 1st Sess. (May 12, 1993).

⁴⁰ See NACEPT DISCUSSION DRAFT ON REMEDY SELECTION REFORM 2 (Oct. 1993). ⁴¹ The NACEPT Draft relates:

[•] The NACEPT Draft relates:

There is disagreement over how permanence and treatment preferences should be dealt with in the statute . . . [In situations such as DNAPLS which cannot be cleaned up with existing available technology,] [t]he industrial community believes that where institutional and engineering controls are sufficient to meet the health and environmental standards, they should be considered on an equal footing with treatment options . . . The environmental community prefers . . . that concerns about disproportionate costs be addressed elsewhere.

⁴³ See Interagency Group Seeks Major Superfund Remedy Selection Changes, INSIDE E.P.A. (U.S. Envtl. Protection Agency, Washington, D.C.), Oct. 27, 1993, at 1, 3 (ex-

sal also elevated the role of community involvement by establishing community advisory groups⁴⁴ that would decide, with the public's participation, whether the future land use of the Superfund site was either "residential" or "restricted" (encompassing industrial, commercial, recreational, agricultural, and park land) and the corresponding need for groundwater as a resource.⁴⁵ The selected use category would then be implemented through institutional controls with the "overall goal [of returning] the site to productive use, wherever possible."⁴⁶ As of the date of this article, the EPA had not yet drafted a legislative proposal to reflect its preferred options for Superfund reform⁴⁷ nor endorsed a legislative proposal submitted by another entity.

B. Legislative Proposals for Superfund Reauthorization

Although most congressional activity on Superfund reauthorization during 1993 occurred in committee hearings focused on specific Superfund reform issues rather than in debate over pending reform legislation,⁴⁸ several legislative proposals for Superfund reauthorization that specifically addressed institutional controls were introduced within the House of Representatives.

cerpting comments and responses from the EPA's proposal on remedy selection: "the [remedy] that is protective of human health and the environment and provides the best balance between long-term reliability and cost would be the preferred alternative").

[&]quot;The EPA explained that Community Work Groups (CWGs), made up of a representative cross-section of the community, would make recommendations as to the future land use at the site. The EPA would then be required to give the CWGs' recommendations serious consideration during remedy selection. When CWGs recommended residential use, "the groundwater resource needs of [the current or future] residents would generally be considered in determining whether remediation of the water is necessary." *Id.* at 2-3.

^{45 .}Id. at 2.

^{**} Id.

[&]quot; See generally Administration-Congressional Superfund Panel Raises Outsiders' Ire, INSIDE E.P.A.'S SUPERFUND REPORT (U.S. Envtl. Protection Agency, Washington, D.C.), Dec. 1, 1993, at 8 (relating that although a work group had convened to begin drafting legislation incorporating the Clinton administration's views, the interagency task force had not yet resolved interagency disputes on the major underlying issues such as the status of retroactivity under Superfund).

⁴⁶ See, e.g., Reauthorization of Superfund: Hearings Before the Subcomm. on Superfund, Recycling, and Solid Waste Management of the Senate Comm. on Environment and Public Works, 103rd Cong., 1st Sess. (May 12, 1993); Superfund Cleanup Efforts: Hearings Before the Transportation and Hazardous Materials Subcomm. of the House Comm. on Energy and Commerce, 103rd Cong., 1st Sess. (Apr. 21, May 5 and 13, 1993); Communities' Role in Superfund Hazardous Waste Clean-up: Hearings before the Transportation and Hazardous Materials Subcomm. of the House Comm. on Energy and Commerce, 103rd Cong., 1st Sess. (Oct. 14, 1993).

Two of these proposals, Representative Richard John Santorum's (R-PA) House Bill 1125⁴⁹ and Representatives Tim Penny's (D-MN) and John Kasich's (R-OH) Amendment to House Bill 3400 (the Government Reform and Savings Act of 1993—a \$90 billion dollar general deficit reduction bill),⁵⁰ proposed to amend Section 121(a) of CERCLA⁵¹ by directing the EPA in selecting remedial actions for Superfund sites to give a preference to the use of institutional controls and containment methods rather than permanent treatment technologies. Supporters of the Penny-Kasich Amendment estimated that its preference for the use of institutional controls and containment methods during remedy selection would save the Superfund program \$1.2 billion. Representative Al Swift (D-WA) presented the opposition's arguments against establishing a preference for institutional controls and containment methols and containment methods is a preference for institutional controls and containment methods during remedy selection would save the Superfund program \$1.2 billion. Representative Al Swift (D-WA) presented the opposition's arguments against establishing a preference for institutional controls and containment methods and containment measures in the Penny-Kasich amendment:

not adequately protective of human health or the environment at many sites because hazardous waste is left in place;
less incentive to develop innovative treatment technologies;

- ** House Bill 1125 would amend Superfund as follows: SECTION 1. PREFERENCE FOR INTERIM MEASURES IN SUPERFUND RESPONSE ACTIONS.
 - Section 121(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9621(a)) is amended by adding at the end the following: "Notwithstanding any other provision of this Act, in selecting appropriate remedial actions, the President shall give a preference to the use of institutional controls (such as deed and access restrictions, monitoring, and provision of alternate water supplies), containment methods (including caps, slurry walls, and surface water diversion), and other interim measures, rather than permanent treatment technologies, if such interim measures are sufficient to protect the public health, welfare, and the environment."

H.R. 1125, 103rd Cong., 1st Sess., (1993) (Feb. 26, 1993 version). This bill also would require the President to submit to Congress annual reports for the next several years detailing the estimated savings resulting from the use of such interim measures in comparison to using permanent treatment technologies, *id*. As of the beginning of 1994, this bill remains active with at least 10 cosponsors.

⁶⁰ The pertinent section of the Penny-Kasich amendment to House Bill 3400, § 217, entitled Preference for Interim Measures in Superfund Response Actions reads:

in any record of decision issued on or after October 1, 1994, the President shall give a preference to the use of *institutional controls* (such as deed and access restrictions, monitoring, and provision of alternate water supplies), [and] containment methods.

139 CONG. REC. H10480 (daily ed. Nov. 20, 1993).
⁶¹ CERCLA § 121, 42 U.S.C. § 9621(c) (1988 & Supp IV 1992).

3) greater costs to states which may bear the burden of funding long-term maintenance costs required by containment and institutional control remedies;

4) creation of permanent dead zones where redevelopment of affected areas is hindered, potentially affecting minority communities disproportionately;

5) reduction in cleanup standards with little or no correlative reduction in federal budget outlays; and

6) passing on of cleanup costs may result ultimately in greater cleanup costs.⁵²

The Penny-Kasich Amendment was subsequently narrowly defeated in the House by a vote of 219 to 213.⁶³ This close vote illustrates that at the end of 1993, legislative support was nearly evenly divided between both sides of the hotly contested and ongoing debate over whether Superfund should continue to prefer permanent treatment measures or be amended to prefer more cost-effective measures, such as institutional controls.

On November 28, 1993, Representative Fred Upton (R-MI) introduced a broad Superfund reauthorization proposal, House Bill 3620,⁵⁴ which presents a more restrictive role for institutional controls than the Santorum Bill, House Bill 1125, and the Penny-Kasich Amendment to House Bill 3400, by narrowly defining when institutional controls may be appropriate for a particular site. Within Title II of House Bill 3620, institutional controls are both defined⁵⁵ and expressly allowed in the context of voluntary cleanups, so long as the party undertaking voluntary response action can show either that "i) other response measures are impracticable for economic, technological or implementation reasons, or ii) engineering and/or institutional controls are necessary to con-

⁵² 139 CONG. REC. H10272 (daily ed. Nov. 19, 1993) (statement of Rep. Swift). Swift also introduced letters from various parties opposed to the Penny-Kasich amendment. In particular, Carol Browner stated the EPA's interest in "more effectively incorporating land use planning into Superfund remedy decisions" but expressed the EPA's opposition to legislative proposals for reauthorization that are outside of the administrative branch's own reauthorization process. 139 CONG. REC. H10273 (daily ed. Nov. 19, 1993) (letter from Carol M. Browner, EPA Administrator, to Rep. Al Swift (Nov. 19, 1993)).

^{53 139} CONG. REC. H10794 (daily ed. Nov. 22, 1993) (Roll 609).

⁵⁴ Contaminated Sites Reclamation Act, H.R. 3620, 103rd Cong., 1st Sess. (1993).

⁵⁵ This bill expressly defines the term "institutional controls" to mean "any mechanism used to limit human activity or exposure at or near a contaminated site Institutional controls include fences or gates, deed restrictions, prohibitions on well use, and warning signs." *Id.* at § 201(8) (Nov. 28, 1993 version).

trol the source of contamination or prevent exposure as part of an overall remedial action program."56

Upton's reform proposal codifies but does not go beyond the role of institutional controls within the current Superfund scheme as discussed above in part II. Moreover, House Bill 3620 mentions institutional controls only in the context of voluntary cleanup, which raises the question of whether they may be selected at sites where a party involuntarily performs cleanup pursuant to an administrative or judicial order. Therefore, House Bill 3620 unduly restricts institutional controls to voluntary cleanups, and does not acknowledge or expand the use of institutional controls at sites where future land and water uses are nonresidential.

C. Reauthorization Proposals from Private Entities

Many private entities, such as individual companies, trade associations and public interest and environmental groups, are participating in the Superfund reauthorization process. Most of these entities advocate their own particular positions and points of view. However, the National Commission on Superfund (NCS) has released a consensus reform proposal, resulting from negotiations between representatives of such diverse groups as public interest and environmental groups, corporate leaders in the chemical and waste disposal industries, insurance and banking industries, educators, and state and local governments. The role of institutional controls under the NCS consensus proposal remains uncertain.57 For example, the NCS proposal expands the role of community groups in cleanup decisions, a factor that seems likely to increase the role of land-use in remedy selection and, thus, may favor sitespecific remedies, such as institutional controls. However, it does not alter the current Superfund preference for treatment over containment measures (and similarly institutional controls)58 and would promulgate national cleanup standards, factors that would

⁶⁶ Id. at § 205(a) (Nov. 28, 1993 version).

⁸⁷ See generally 'Consensus' Superfund Plan Comes Under Attack from Industry, 15 INSIDE E.P.A. (U.S. Envil. Protection Agency, Washington, D.C.), Jan. 7, 1994, at 5-6.

⁵⁰ Reports state that Representative Swift had asked his staff to draft a legislative proposal based on the December 1993 NCS consensus proposal. *See id.* Based upon his role as leader of the opposition to the Penny-Kasich amendment, it is unlikely that Swift would introduce a reform proposal elevating or expanding the role of institutional controls at Superfund sites.

not encourage the application of institutional controls at Superfund sites.

CONCLUSION

At a minimum, Superfund should be amended to acknowledge the current and widespread use of institutional controls as an integral and appropriate component of a remedy at most Superfund sites.⁵⁹ Only minor revisions to Section 121 are needed to reflect that institutional controls have proved necessary to supplement permanent treatment-based remedies at Superfund sites where some residual contamination remains and to acknowledge that institutional controls may be an integral component of a preferred remedy.⁶⁰ An expansive definition of "institutional controls" should also be added to Section 101.⁶¹

The debate on Superfund remedy selection reform continues to focus on whether or not to shift the emphasis from Section 121's preference for permanent treatment in remedy selection to Section 121's rather contrary preference for cost-effective remedies such as institutional controls. The pending reauthorization proposals echo this debate, presenting nearly a full spectrum of positions on the role of institutional controls at Superfund sites. Representative Swift presented perhaps the most restrictive view of institutional controls in his opposition to the Penny-Kasich amendment, though he did not dispute the tremendous cost-savings potential to the Superfund program resulting from an increased use of institutional controls. The preference for institutional controls and containment measures at all sites presented by the Penny-Kasich Amendment to H.R. 3400 and the Santorum Bill, H.R. 1125, represents the opposite extreme because institutional controls may not be an appropriate remedy at every Superfund site.

⁵⁹ This approach of codifying the status quo is best illustrated by the Upton bill, H.R. 3620, 103rd Cong., 1st Sess. (1993), if the Upton bill's provisions addressing institutional controls were not limited to voluntary cleanups.

⁶⁰ For example, following § 121(c)'s current instruction that the President may select a "remedial action that results in hazardous substances, pollutants, or contaminants remaining at the site," insert an additional sentence reading: "In such cases, the President shall consider the implementation of appropriate institutional controls at the site to assure the protection of human health and the environment."

⁶¹ See supra notes 13-19 and accompanying text.

The EPA proposes to consider cost-effective remedies, such as institutional controls, during remedy selection if appropriately based upon the future land and water use of the site, as determined by the local community. By recognizing that all sites might not need to be cleaned up to pristine levels, particularly if the current and anticipated future uses of the groundwater and land at the site as established by the local community are nonresidential, the EPA's proposed reforms do reflect a paradigm shift within the Superfund program. Nevertheless, the EPA's proposal appears to strike the most appropriate balance of all the current reform proposals between the status quo of the current Superfund scheme, which prefers permanent treatment remedies, and the unbridled preference for cost-effective remedies at all sites offered by several of the legislative reform proposals. This proposal reflects the EPA's conclusion that expanding the role of institutional controls in remedy selection is one mechanism by which it can still achieve its mandate to protect the public health and environment while significantly reducing cleanup costs and returning Superfund sites to beneficial uses faster and more efficiently. Although the EPA has not yet presented a legislative proposal, only minor changes to Section 121 of the current statutory scheme are necessary to incorporate the EPA's views for institutional controls. The EPA's proposal for remedy selection reform is based on future uses as determined by local communities, which bear many burdens associated with Superfund cleanups, and allows the local communities a greater voice in the remedy selection and implementation process as well as the benefits of obtaining expedited response actions for Superfund sites within their areas.