Federal Procurement of Environmental Remediation Services: Feast or Famine for Small Business

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Federal Procurement of Environmental Remediation Services: Feast or Famine for Small Business

DANIELLE CONVAY-JONES*

New forces such as globalization, the rise of new technologies, and the development of new markets are shaping a new American economy. Small firms, with their nimbleness, adaptability, and creativity, will play an increasingly important role in that new economy.

President William J. Clinton1

INTRODUCTION

Environmental remediation service2 is an emerging industry that owes the majority of its existence to a labyrinth of federal laws, statutes, and regulations. Environmental remediation services consist of work identified with a number of different functions performed to restore a contaminated environment.3 These functions include, but are

* Assistant Professor of Legal Research and Writing, Georgetown University Law Center. I wish to thank Christopher L. Jones, Jr., Esq. for reading and commenting on many rewrites of this article. I also wish to thank Professors Fred J. Lees, Elizabeth Glass-Geltman, Jill J. Ramsfield, Dean Judith Areen, and Associate Dean Anita Allen for their comments and support. This article was funded, in part, by a Georgetown University Law Center summer research stipend. Finally, I wish to thank Patricia Tobin for her excellent research ideas and David W. Hanson, Esq. for his critical and thoughtful comments.


2. Environmental remediation services are defined under (or more clearly are a sub-category of) Facilities Support Management Services which is itself identified by Standard Industrial Classification (SIC) code 8744. The Facility Support Management Services category is a component of Facilities Management. See 13 C.F.R. § 121.601 (1995).

not limited to, preliminary assessments, site inspections and testing, remedial investigations, feasibility studies, remedial design, containment, remedial actions, transportation and disposal of waste materials, security, and site close outs.

4. A preliminary assessment is a limited scope investigation designed to distinguish between sites that pose little or no threat to human health and the environment and sites that require further investigation. The preliminary assessment is typically based on installation records searches, visual site inspections, and interviews of site personnel. See DEFENSE ENVIRONMENTAL RESTORATION PROGRAM: ANNUAL REPORT FOR FISCAL YEAR 1994 (Mar. 31, 1995) [hereinafter DERP REPORT FY94].

5. "When the President has reason to believe that a release has occurred, or is about to occur, or that illness, disease or complaints thereof may be attributable to exposure to a hazardous substance, pollutant or contaminant, [the EPA or other federal agency] may undertake such investigations, monitoring, surveys, testing, and other information gathering as . . . may be deemed necessary or appropriate to identify the existence and extent of release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health or welfare or to the environment." 42 U.S.C. § 9604(b)(1).

6. A remedial investigation is designed to assess the nature and extent of releases of hazardous substances, and determine those areas of a site where releases have created damage or the threat of damage to public health or the environment. It is during the remedial investigation that extensive solid and groundwater sampling is performed and voluminous reports detailing the results of these investigations are prepared. The overall purpose of the remedial investigation is to collect data necessary to adequately characterize a site for the purpose of developing and evaluating effective remedial alternatives. See DERP REPORT FY94, supra note 4.

7. The objective of a feasibility study is to develop a range of remedial alternatives for consideration. The feasibility study evaluates, in detail, potential remedies for the site, taking into account the findings of the remedial investigation. Id. The feasibility study is divided into two phases for evaluating remedial alternatives. The first phase is the initial screening of all alternatives. The second phase is the detailed analysis of the alternatives. The detailed analysis, among other things, considers cost-effectiveness, short and long-term effectiveness, and overall protection of human health and the environment. See DERP REPORT FY94, supra note 4.

8. During the remedial design phase, a design of the cleanup remedy is developed. The design phase includes preparation of all technical drawings and specifications needed to implement the cleanup action. See DERP REPORT FY94, supra note 4.

9. Containment is a remedial action used to isolate hazardous substances to assure the protection of public health and welfare, and the environment. See 42 U.S.C. § 9604(b)(1).

10. Remedial actions are consistent with permanent remedies, i.e., cleanups, taken "in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize . . . the substantial danger to present or future public health or welfare or the environment." 42 U.S.C. § 9601(24). A remedial action involves the construction, operation, and implementation of the final cleanup remedy. Long term remedial actions require continued monitoring, operation, and maintenance for a number of years. See DERP REPORT FY94, supra note 4.

11. "Transportation" means movement of a hazardous substance by any mode . . . . . . 42 U.S.C. § 9601(26). "Disposal" is defined as the "discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment . . . . . ." 42 U.S.C. § 6903(3).

12. Generally, "security" includes construction of fences or providing guard services on site. A contractor that receives award of a remediation or response action contract must provide site security. Security provisions must be made on a site by site basis. A contractor must maintain a site and all other contractor controlled areas in such a manner as to minimize the risk of injury
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To date, the environmental remediation services industry has been primarily dominated by very large firms. Larger firms have secured almost all of the environmental remediation contracts let by the federal government. However, despite large business involvement in multi-discipline environmental remediation contracts, small businesses, especially engineering firms and laboratories, have provided initial services in this industry. Small businesses were among the first to recognize the growth potential of the environmental remediation service industry in both the public and private sectors.

The environmental remediation services industry is fueled by many market participants. Both the private and public sectors have a growing need for environmental remediation services because of business or national security practices that have caused degradation and destruction of the environment. The growth in the environmental remediation services industry will bring lucrative opportunities for small businesses. Continued consumer concern for the environment may also provide additional opportunities for small businesses, from producing environmentally correct products and packaging to offering consulting and contracting services.

This article focuses on the opera...
opportunities that presently exist in the federal procurement system for small businesses either already engaged in the environmental remediation field or seeking entry into the field after having provided services loosely related to environmental remediation.\textsuperscript{18}

Although the history of the environmental remediation industry is brief, part one of this article will discuss its origin and the catalysts that brought this industry to the forefront of both the environmental and federal procurement fields. Part two will provide a practical guide to the small business requirements in the federal procurement process. Part three of this article offers a description of the most current and notable types of environmental remediation contracts. Part four discusses pertinent federal government policies regarding the ongoing development of small businesses in the environmental remediation services industry. Part five discusses the impediments to and the obstacles faced by small businesses seeking growth or entry into the federal environmental remediation services industry. Finally, part six of this article provides recommendations to promote meaningful small business participation in the environmental remediation services industry.

This author concludes that, while small businesses have the potential to offer quality remediation services to the federal government, large federal “mega” remediation services contracts will continue to thwart meaningful participation by these firms in the environmental cleanup industry. In order to capture the superior resources within small firms that can provide cleanup services, the federal government will have to exploit its regulations and policies to stir opportunities for small firms that, although able and willing, cannot feasibly compete against large firms for federal environmental remediation services contracts.

\section*{I. THE GENESIS OF THE ENVIRONMENTAL REMEDIATION SERVICES INDUSTRY}

In 1962, in a book entitled \textit{Silent Spring},\textsuperscript{19} Rachel Carson introduced the world to the public policy phenomenon called “the environ-

\textsuperscript{18}. Industries where small firms provide some environmental remediation work include, but are not limited to, the following: Commercial, Physical, and Biological Research; Base Maintenance; Engineering Services; Architectural Services; Sanitary Services; Refuse Systems; Local Trucking without Storage; Wrecking and Demolition; Special Trade Contractors; and Heavy Construction. See 13 C.F.R. pt. 121.601.

\textsuperscript{19}. \textit{Rachel Carson, Silent Spring} (1962).
ment." Carson’s work has been credited as altering the course of history.20 After its publication in 1962, the environmental movement was conceived. Revolutionary changes in the laws affecting the air, land, and water were about to take place.21 Rachel Carson’s view of the destruction of the environment drew monumental attention from both the federal government and the public. In large part, Carson’s concerns about, and her eloquent arguments against the pollution of the earth, prompted the creation of the Environmental Protection Agency (EPA) in 1970.22

Shortly thereafter came the National Environmental Policy Act (NEPA),23 which was signed into law by President Richard Nixon in 1970.24 NEPA addressed the need for a national environmental policy.25 NEPA was the first comprehensive attempt to legislate a national policy toward protecting the quality of the environment.26 As such, NEPA has an important, if only indirect, effect on the federal government’s management of the cleanup of this country’s environment.27 NEPA requires that any proposed federal action that significantly impacts the environment must be studied.28 The very mandate to study impacts of proposed major federal action finds its way into the area of remediation because, as a condition precedent to performing remedial work at a site, federal agencies must evaluate other alternatives.

On the heels of NEPA came, inter alia, the Clean Air Act29 and the Clean Water Act.30 Years later, the Resource Conservation and Recovery Act (RCRA)31 and the Comprehensive Environmental Re-

21. Id.
25. Id.
27. Id.
sponse, Compensation and Liability Act (CERCLA) were enacted. All of these statutes contain a study and analysis phase, which must be completed before actual remediation can occur.

The Resource Conservation and Recovery Act was enacted in 1976 and has since been significantly amended. The RCRA provided the EPA with authority to regulate the disposal of waste materials on land. This Act’s jurisdiction extends to ongoing activities of waste management facilities. Although differing and sometimes overlapping requirements exist, the RCRA also provides authority for the investigation and cleanup of past waste sites, creating a corrective action program substantially equivalent to that of CERCLA.

In contrast, CERCLA was enacted to deal with environmental contamination at abandoned disposal sites. CERCLA provides the federal government with the authority to deal effectively with uncontrolled releases of hazardous substances into the environment. CERCLA was designed to function as a remedial statute authorizing the federal government, state governments, and, in certain situations, private parties, to respond to and cleanup hazardous substances in the water, air, and on land.

The heart of CERCLA is its “Superfund,” developed to finance government response actions. The Superfund has been primarily funded by a broad range of taxes. The Superfund cannot be used to pay for remedial actions with respect to federally owned facilities. However, the Superfund can be used if a federal agency embarks on the cleanup of a site on the National Priorities List (NPL) that is not a

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34. See 42 U.S.C. §§ 6924(v), 6991b.
36. Id.
federally owned facility. The source of funding to conduct cleanups of federally owned facilities is the federal agency's own budget. For example, the Department of Energy (DoE) has received approximately $6.2 billion as of fiscal year 1994 for environmental restoration, while the Department of Defense (DoD) has received appropriations totaling approximately $4.5 billion for its environmental restoration program.

CERCLA authorizes the federal government to take action in response to the release or substantial threat of release into the environment of any hazardous substance which may present an imminent and substantial danger to the public health or welfare. If a party responsible for a release or threat of release cannot be found or fails to act in accordance with the EPA's administrative orders, the federal government can perform the cleanup work itself and then seek reimbursement.

While the EPA administers cleanups pursuant to Superfund, DoD has its own significant responsibilities in the environmental cleanup arena. In 1986, the ninety-ninth Congress passed the Superfund Amendments and Reauthorization Act (SARA), which established the Defense Environmental Restoration Program (DERP). Pursuant to the DERP, DoD is obligated to ensure that it effectively performs its own hazardous substance cleanups, response actions, and investigations at facilities owned by, leased to, or other-

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40. See 42 U.S.C. § 9611(a). CERCLA permits the federal government to use Superfund dollars for the provision of alternative water supplies in any case involving groundwater contamination outside the boundaries of a federally owned facility in which the federally owned facility is not the only potentially responsible party. See 42 U.S.C. § 9611(e)(3).
41. See generally Herman, supra note 16.
42. Id.; see also Budget of the United States Government 111 (Fiscal Year 1994). Congress has provided funds in two accounts to support DoD's environmental restoration program. These accounts are the Defense Environmental Restoration Account and the Base Realignment and Closure Account. See DERP REPORT FY94, supra note 4.
43. See 42 U.S.C. § 9604(a).
44. The EPA has the option to issue administrative orders or initiate civil actions to compel responsible parties to undertake cleanup of contamination created by their actions. See 42 U.S.C. § 9606(a) (1988); see generally Eugene P. Brantly, Note, Superfund Cost Recovery: May the Government Recover "All Costs" Incurred Under Response Contracts?, 59 GEO. WASH. L. REV. 968 (1991).
45. A responsible party is liable for all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan. See 42 U.S.C. § 9607(a), (c).
wise possessed by DoD.50 The DERP receives its financial support from the Defense Environmental Restoration Account (DERA or transfer account) which is primarily funded51 by congressional appropriations.52

The federal government's, and particularly DoD's, environmental cleanup obligations increasingly have become significant since the enactment of RCRA, CERCLA, and SARA. To meet its expansive cleanup obligation, DoD relies extensively on its procurement system.53 This system employs contractors possessing the technical expertise and ability to provide quality studies, remedial investigations, design, remedial action, and short term operation and maintenance to cleanup contaminated sites on military installations.54

A. The Federal Procurement System

Government procurement reaches back to the inception of this nation. One of the federal government's initial procurements was advertised by the Postmaster General for mail service contracts.55 Government procurement has since evolved into a system of complex statutes, regulations, and decisions designed specifically to protect those who deal with the federal government as suppliers, as well as to protect the public's interests.

Contracts made by the United States are generally entered into by individual organizations within all three branches of the federal government.56 These organizations are varied in nature, ranging from established departments to recently formed corporations.57 Congress

50. The President issued Executive Order 12580 in January 1987 directing the Secretary of Defense to implement investigation and cleanup measures in consultation with the EPA for releases of hazardous substances from facilities under the jurisdiction of the Secretary. DoD refers to the program for meeting its responsibilities under CERCLA as the Installation Restoration Program (IRP). 10 U.S.C. § 2701(a).
51. See 10 U.S.C. § 2703(c) (amounts recovered under § 107 of CERCLA for response actions of the Secretary of Defense are to be credited back to the transfer account).
53. See DERP REPORT FY94, supra note 4.
54. Id.
55. See 1 Stat. 235 (1792); see also G. BROCKWEL-HEYLIN, THE COMPETITIVE BIDDING PROCESS—AN ENDANGERED SPECIES (1981).
56. JOHN CIBINIC, JR. & RALPH C. NASH, JR., FORMATION OF GOVERNMENT CONTRACTS (2d ed. 1986).
57. Id.
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has not adopted one procurement statute for the entire federal government.\textsuperscript{58} Historically, the two major statutes covering most of government procurement were the Armed Services Procurement Act (ASPA)\textsuperscript{59} and the Federal Property and Administrative Services Act (FPASA).\textsuperscript{60}

Then, in 1984, Congress enacted the Competition in Contracting Act\textsuperscript{61} to amend and harmonize the ASPA and the FPASA.\textsuperscript{62} It is this very system that the federal government relies upon to procure environmental remediation services.

B. Traditional Environmental Remediation Contracts

The need for scientific and technical expertise in performing DoD environmental cleanups was the seed that sprouted into the federal environmental remediation services industry.\textsuperscript{63} This industry has seen significant growth to date.\textsuperscript{64} When the EPA or other federal agencies decide to cleanup a Superfund or other site\textsuperscript{65} using government funds,\textsuperscript{66} they call upon the services of private engineering and environmental firms to evaluate site conditions and select, design, and implement appropriate remedies.\textsuperscript{67} Specifically, when DoD sets out to cleanup contaminated sites on installations, it also uses engineering and environmental firms to analyze sites and propose alternatives for remediation. In fact, engineering firms provided some of the first remediation services, that is, environmental studies, to the federal government as it embarked on its cleanup mission.\textsuperscript{68} Once the environmental study and evaluation phases of the government's initial contracts were completed, its focus had to shift to actual cleanup and

\textsuperscript{58} Id.
\textsuperscript{59} See 10 U.S.C. §§ 2301-2331.
\textsuperscript{60} See 41 U.S.C. §§ 251-266.
\textsuperscript{62} CIBINIC, supra note 56.
\textsuperscript{63} GUIDE TO DEPARTMENT OF DEFENSE ENVIRONMENTAL PROCUREMENTS: MAKING THE MOST OF YOUR OPPORTUNITIES (1995).
\textsuperscript{65} The EPA is not required to perform cleanups of sites that have been placed on the NPL. Rather, the EPA has the option to either issue administrative orders or initiate civil actions to compel a potentially responsible party to cleanup the site or pay for the cleanup if it is unable to perform the work itself. See 42 U.S.C. § 9605.
\textsuperscript{66} See 42 U.S.C. § 9611(a)(1).
\textsuperscript{68} Mary Buckner Powers & Debra K. Rubin, Environmental Service Firms Change Along With Markets, ENGINEERING NEWS-RECORD, Feb. 21, 1994, at 48.
restoration of contaminated sites. This final phase of remediation proves to be the most difficult aspect of completing environmental cleanups.

The program that emerged to deal with the actual nuts and bolts of environmental cleanup was the Hazardous, Toxic, and Radioactive Waste (HTRW) cleanup program. The HTRW program is administered government-wide by the Environmental Protection Agency. DoD implemented the HTRW program through its Installation Restoration Program. DoD uses the Installation Restoration Program to react to the requirement to cleanup land contaminated as a result of military activity. DoD is charged with the responsibility to cleanup its contaminated installations. The U.S. Army Corps of Engineers (Corps or Corps of Engineers) shoulders the responsibility to manage the cleanup of many DoD installations.

The Corps assists many agencies in the execution of their environmental cleanup programs. These agencies include: the U.S. Environmental Protection Agency; the Department of Energy; the General Services Administration; the Federal Aviation Administration; and the Department of Commerce. These agencies are customers of the Corps and have recently requested greater degrees of assistance from the Corps in support of their respective HTRW programs. All HTRW programs administered throughout the federal government continue to increase with the growing emphasis on environmental restoration. The HTRW work load associated with each federal agency seeking assistance combines to place a tremendous burden on the Corps' contracting activities, such as awarding environmental remediation contracts.

69. Id.
70. The HTRW program provides for investigations and analyses of sites to determine the level and extent of contamination. Sites are then identified for cleanup and the nature and extent of cleanup. Finally, a proper approach to cleanup is determined, which then allows agencies to begin the task of performing remedial actions. See DERP Report FY94, supra note 4.
71. See TERC ACQUISITION PLAN, supra note 12.
72. Id. Many of the sites and projects managed by the Corps are on the U.S. EPA National Priorities List and are covered by negotiated Federal Facility Agreements between Corps customers and regulatory agencies. Id.
73. Id.
74. Id.
75. Id. The Corps has a history of providing engineering and construction services to the Nation. In the past decade, the Corps added environmental remediation as one of its numerous missions. Other agencies seek the Corps' assistance in environmental remediation, because the Corps developed an expertise and institutional knowledge in the area of environmental cleanup. Id.
C. A Growing Demand for Mainstream Environmental Remediation Services Contracts

In all of its procurements, DoD uses two basic contract types. The first is the fixed price contract, and the second is the cost reimbursement contract. The "firm, fixed price" contract is the most common type of government contract; the price is firm for the duration of the contract and the only adjustments that can be made are authorized changes. It is under the fixed price contract that the contractor bears the risk of the cost of performance. Under this type of contract, the contractor assumes the maximum risk of profit, or loss, including the risk of unexpected costs such as those that might result from inflation or material shortages. Fixed price contracts are used by DoD when the cost of performance is reasonably predictable and when adequate, functional, and detailed specifications are available.

Under a cost reimbursement contract, DoD reimburses a contractor for the allowable incurred costs of performance. A contractor’s costs, however, can only be reimbursed in accordance with certain cost accounting principles. Cost reimbursable contracts place the maximum risk of cost and completed performance on the government. For example, the government may be required to pay costs, beyond those anticipated, because the contractor incurred additional costs in order to complete performance.

The Corps of Engineers favors the use of fixed price construction contracts for its military and civil works procurements. The Corps initially awarded fixed price contracts to firms providing environmental remediation services, because most cleanup work was and remains construction based. However, the uncertainty of remedial or response

77. See FAR, 48 C.F.R. pt. 16.3—Cost Reimbursement Contracts.
78. See FAR, 48 C.F.R. pt. 43.201. Most DoD contracts contain a changes clause. The changes clause incorporated in a contract varies according to the type of contract. See FAR, 48 C.F.R. pt. 43.205. Generally, a changes clause authorizes a contracting officer to order a contractor to make changes “within the general scope of the contract.” See FAR 48 C.F.R. pt. 52.243 (“Changes. A change is considered to be within the scope of the contract if the change is regarded as fair and reasonable, and within the contemplation of the parties upon entering into the contract.”). See Planned Environmental Design Corp., ASBCA Nos. 47559, 48746, 96-1 BCA ¶ 28,001 (Oct. 2, 1995).
82. See FAR, 48 C.F.R. pt. 16.301-1.
83. See FAR, 48 C.F.R. pt. 31.
84. See FAR, 48 C.F.R. pt. 16.301-1.
action requires a flexible contract tool to account for unforeseen cost and performance contingencies. Simply stated, most environmental projects do not fit the mold of a fixed price construction contract, because this work requires non-routine services, the cost of which cannot be estimated accurately before commencing performance.

DoD, like other federal agencies, relies on and utilizes fixed price contracts to satisfy its executive agency requirements. These agencies have become comfortable with the administration of this contract type when contracting for work other than actual cleanup. In fact, the fixed price contract type has often worked well for the federal government, in areas other than actual cleanup, because the risks associated with cost and performance remained with the contractor. For example, the Corps of Engineers, in its initial support of the HTRW program, performed environmental remediation work using a standard two contract approach. First, the Corps awarded a fixed price design contract, issued pursuant to Brooks Act, Architect-Engineer (A-E) procedures. The work under this contract encompassed, among other things, site investigations, studies, and determinations regarding most favorable remedial alternatives. The second instrument awarded was a fixed price, competitive construction contract to the low bidder.

Unfortunately, performance of environmental remediation work pursuant to a fixed price contract often has resulted in both the federal government and the contractor receiving less than what each bargained for. The majority of the fixed price environmental

85. See TERC ACQUISITION PLAN, supra note 12.
87. This type of award is made pursuant to either sealed bidding or negotiated procurement procedures. Sealed bidding is a method of contracting that results in the award of a contract "to that responsible bidder whose bid, conforming to the invitation for bids, is most advantageous to the Government, considering only price and the price-related factors included in the invitation [for bids]." See FAR, 48 C.F.R. pt. 14.101(e). Some remedial construction contracts were awarded on a competitive, negotiated basis. See TERC ACQUISITION PLAN, supra note 12. "Negotiation means contracting through the use of either competitive or other than competitive proposals and discussions." FAR, 48 C.F.R. pt. 15.101. "Negotiation is a procedure that includes the receipt of proposals from offerors, permits bargaining, and usually affords offerors an opportunity to revise their offers before award of a contract." FAR, 48 C.F.R. pt. 15.102.
88. Jeffrey W. Hills, Leaning Forward in the Foxhole (Oct. 1995) (on file with the Military Engineer). At the time of this writing, Major Jeffrey W. Hills was the Headquarters, Deputy Chief, Contract Policy Division, Principal Assistant Responsible for Contracting (PARC). Major Hills is a graduate of The United States Military Academy. He holds a dual Masters degree in Engineering and Business Administration, and is a licensed engineer in the Commonwealth of Virginia. Prior to his assignment as the Deputy PARC, he was the Deputy Chief, U.S. Army Corps of Engineers, Kansas City District, responsible for HTRW design and response.
remediation contracts have been less than successful due to the advent of unknown conditions that surfaced during contract performance. These unknown conditions often have caused contracts to balloon in cost, scope, claims, and litigation.

Federal agencies concluded that environmental remediation work does not lend itself to quantifiable measures of known contaminants. Thus, federal agencies developed new contracting methods in response to the undefinable nature of remediation and removal projects and the limited amount of historical data. Furthermore, because of the uncertainties associated with remediation, many different types of contracts are needed to facilitate the large and varied HTRW cleanup contracting programs instituted throughout the federal government. In some cases, a cleanup project may be accomplished by using a combination of existing A-E and sealed bidding procedures. However, this acquisition strategy may work well only if the cleanup is routine, minimum uncertainties exist, and sufficient acquisition lead time is available. In a situation where many factors remain variable in the cleanup process, simplistic acquisition techniques will and have become useless.

By definition, much of the material involved in hazardous substance cleanup may be harmful or even lethal to humans, the environment, or both. This frequently means that time is of the essence in selecting an appropriate acquisition strategy and executing the acquisition process. This intuitively means that sealed bidding or negotiated procurements, either alone or combined, probably would not be

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89. Id.
90. Id.
91. Id. With fixed price contracts, the contractor must anticipate the possibility of failures and difficulties by including contingency amounts in its price. Because the government would be required to pay the fixed price whether or not the contingency occurs, the contractor might receive a handsome premium for the environmental remediation services. Alternatively, if the work proved more difficult, for instance, because of a differing site condition, the government would then have to pay on the contractor's claim. Id.
92. See TERC ACQUISITION PLAN, supra note 12.
93. See infra Part III.
94. See TERC ACQUISITION PLAN, supra note 12. A fixed price Architect-Engineer (A-E) design contract is issued under Brooks Act procedures. See 40 U.S.C. §§ 541-544. The Brooks Act requires agencies to select an A-E contractor for a project on the basis of qualifications. See FAR, 48 C.F.R. pt. 36.606(c). The A-E contract is then followed by a fixed price construction contract issued to the lowest bidder. "No contract for the construction of a project shall be awarded to the firm that designed the project or its subsidiaries or affiliates, except with the approval of the head of the agency or authorized representative." FAR, 48 C.F.R. pt. 36.209.
95. See TERC ACQUISITION PLAN, supra note 12.
96. Id.
97. Id.
the fastest, most efficient, nor technically appropriate method to accomplish the required remedial action that would reduce the dangers a hazardous substance may present to human health or the environment.

In the late seventies, several different innovative contracting methods were developed to meet new and growing cleanup requirements. The EPA spearheaded these efforts. New contracting tools included large indefinite-delivery,98 architect-engineer, fixed price contracts and even larger indefinite-delivery type, remedial action contracts.99 These remedial action contracts contained flexible pricing arrangements in that a delivery order could be issued on a cost plus, fixed price, or fixed unit price basis.100 Remedial action contracts incorporated both service and construction clauses that provided flexibility to issue service and/or construction delivery orders as acquisition conditions dictated.101 Since the time remedial action contracts were approved for use, many different contract types based on the indefinite-delivery type concept have been awarded by the Corps, the Navy, the Air Force, and non-DoD agencies.102

98. "There are three types of indefinite-delivery contracts: Definite-quantity contracts, requirements contracts, and indefinite-quantity contracts. The appropriate type of indefinite-delivery contract may be used to acquire supplies and/or services when the exact times and/or quantities of future deliveries are not known at the time of contract award." FAR, 48 C.F.R. pt. 16.501-2(a). Most response or remedial actions require the use of indefinite-quantity contracts, because the quantity of remedial work required by the government is unknown. Regarding indefinite-quantity contracts, FAR, 48 C.F.R. pt. 16.504 states:

(a) Description. An indefinite-quantity contract provides for indefinite quantity, within stated limits, of supplies or services to be furnished during a fixed period, with deliveries or performance to be scheduled by placing orders with the contractor.

(1) The contract shall require the Government to order and the contractor to furnish at least a stated minimum quantity of supplies or services and, if and as ordered, the contractor to furnish any additional quantities not to exceed a stated maximum . . . . [The stated] maximum quantity should be realistic and based on the most current information available.

(2) To ensure that the contract is binding, the minimum quantity must be more than a nominal quantity, but it should not exceed the amount that the Government is fairly certain to order.

(b) An indefinite quantity contract may be used when the Government cannot predetermine, above a specific minimum, the precise quantities of supplies or services that will be required during the contract period, and it is inadvisable for the Government to commit itself for more than a minimum quantity. An indefinite quantity contract should be used only when a recurring need is anticipated. Funds for other than the stated minimum quantity are obligated by each delivery order, not by the contract itself.

99. See Downs, supra note 14.

100. Id. This flexibility allows a contracting officer to use business judgment to determine which pricing arrangement is best suited for the work required under a specific delivery order. Id.

101. Id.

102. See infra Part III.
The Corps of Engineers began to design its own innovative contracting instruments to procure environmental remediation services in response to EPA successes. The Corps developed the Total Environmental Restoration Contract (TERC). The Corps believes that, with the implementation of TERCs, it can and has been able to cut cleanup schedules and budgets, improve contractor performance, and generate opportunities for small businesses.

This thesis focuses on the opportunities for and the impediments to small business participation in the environmental remediation services industry. The federal government must introduce new contract vehicles into the current procurement system to effectively manage environmental site cleanup and remediation. It must also decide, in accordance with procurement statutes, regulations, and decisions, the practical extent of small business participation in one of this decade's most lucrative industries.

II. SMALL BUSINESS ADMINISTRATION

Congress established the Small Business Administration (SBA) in 1953 and gave it the responsibility to administer a range of programs designed to achieve specific economic goals. Generally, eligibility for assistance under SBA programs requires that a firm be a certain size, measured either by the number of employees or amount of revenues. In addition, other federal agencies may implement programs for which a small size is an eligibility criterion. Both the actual setting of size standards and the determination of which firms fall within these standards to qualify as small are exclusively within the SBA’s jurisdiction.

103. The Corps has been lauded for the creation of its new contracting approach to speed hazardous substance cleanup. Specifically, the Corps has been recognized for pioneering the TERC, a contracting tool that incorporates cradle-to-grave environmental tasks into one contract instrument. The Top News Makers of 1994, ENGINEERING NEWS-RECORD, Jan. 29, 1995, at 94.
104. Id.
105. See supra text accompanying notes 16-18.
106. See 13 C.F.R. § 121.201.
107. Id.
108. Id.
109. Id.
A. Regulatory Definitions of Business Size and Status

1. Small Business

The Small Business Administration defines a small business as one that is independently owned and operated and is not dominant in its field. According to the Federal Acquisition Regulation (FAR), a small business concern means a concern, . . ., that is independently owned and operated, not dominant in the field of operation in which it is bidding on government contracts, and qualified as a small business under certain criteria and size standards. Depending on the industry, size standard eligibility is based on the average number of employees for the preceding twelve months, or sales volume averaged over a three year period. Typically, the size standard used for small businesses involved in wholesaling or manufacturing is measured by the number of employees in the firm, while the size standard used for small businesses engaged in construction or the provision of services is the measure of the firm's revenues.

In order to stimulate growth and fair competition for small business, the policy of DoD and other executive agencies is to acquire supplies, services, and construction from small businesses. The acquisition of an agency's requirement from a particular group is called a set-aside. An acquisition is reserved for exclusive small business participation if, after review, a unilateral determination by a government representative, known as a contracting officer, is made justifying the set-aside, or a joint determination is made by the Small

111. A concern is not dominant in its field of operation when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. See Small Business Size Standards: Environmental Services, 58 Fed. Reg. 4074 (1993). In determining whether dominance exists, consideration shall be given to all appropriate factors, including: volume of business; number of employees; financial resources; competitive status or position; ownership or control of materials; processes; patents; license agreements; facilities; sales territory; and nature of business activity. Id.
114. Id.
115. See FAR, 48 C.F.R. pts. 6.203(a), 19.501(a). A detailed explanation of DoD's recent decision to suspend its small disadvantaged business set-aside program is found at footnote 131.
116. "[T]he contracting officer shall set-aside an individual acquisition or class of acquisitions when it is determined to be in the interest of (a) Maintaining or mobilizing the Nation's full productive capacity, (b) War or national defense programs, or (c) Assuring that a fair proportion of Government contracts in each industry category is placed with small business concerns. . . ." FAR, 48 C.F.R. pt. 19.502-1.
117. See FAR, 48 C.F.R. pt. 19.501(b), (c).
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Business Administration and the contracting officer regarding the set-aside.\textsuperscript{118}

The contracting officer's review involves consideration of recommendations made by agency personnel who are cognizant of the agency's small and small disadvantaged business utilization programs.\textsuperscript{119} Documentation must accompany a recommendation that an acquisition is inappropriate for set-aside.\textsuperscript{120} Once a product or service has been acquired successfully by a contracting office on a small business set-aside basis, all future requirements of that office for that particular product or service must, if required by agency regulations, be acquired on the basis of a repetitive set-aside.\textsuperscript{121} However, an agency requirement need not be set-aside if the contracting officer determines there is not a reasonable expectation that: (1) offers will be obtained from at least two responsible small business concerns offering the products of different small business concerns; and (2) awards will be made at fair market prices.\textsuperscript{122} All solicitations involving set-asides must specify the applicable small business size standard and product classification.\textsuperscript{123} Finally, a contract may not be awarded as a result of a set-aside if cost to the awarding agency exceeds the fair market price.\textsuperscript{124}

2. Small Disadvantaged Business

A small disadvantaged business concern means a small business concern that is at least fifty-one percent unconditionally owned by one or more individuals who are both socially\textsuperscript{125} and economically\textsuperscript{126} disadvantaged, or a publicly owned business that has at least fifty-one percent of its stock unconditionally owned by one or more socially

\begin{footnotesize}
\begin{enumerate}
\item[118.] See FAR, 48 C.F.R. pt. 19.501(b).
\item[119.] See FAR, 48 C.F.R. pt. 19.501(c).
\item[120.] Id.
\item[121.] See FAR, 48 C.F.R. pt. 19.501(g).
\item[122.] Id.
\item[123.] Id.
\item[124.] FAR, 48 C.F.R. pt. 19.501(i).
\item[125.] Socially disadvantaged is defined by “individuals who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their qualities as individuals.” FAR, 48 C.F.R. pt. 19.001.
\item[126.] Economically disadvantaged incorporates the definition of socially disadvantaged individuals “whose ability to compete in the free enterprise system is impaired due to diminished opportunities to obtain capital and credit as compared to others in the same line of business who are not socially disadvantaged. Individuals who certify that they are members of named groups (Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent-Asian Americans) are to be considered socially and economically disadvantaged.” FAR, 48 C.F.R. pt. 19.001.
\end{enumerate}
\end{footnotesize}
and economically disadvantaged individuals and that has its management and daily business controlled by one or more such individuals.\textsuperscript{127} DoD’s regulations (DFARS) defining a small disadvantaged business are more restrictive than the FAR.\textsuperscript{128} The DFARS says that a small disadvantaged business concern means a small business concern, owned and controlled by individuals who are both socially and economically disadvantaged,\textsuperscript{129} and the majority of earnings directly accrue to such individuals.\textsuperscript{130}

The requirements imposed by the FAR to set-aside acquisitions for exclusive small disadvantaged business participation are the same as the SBA’s regulations. However, DoD promulgated its own regulations for total set-asides to small disadvantaged business concerns.\textsuperscript{131} DoD’s regulations place certain restrictions on the


\textsuperscript{129} See DFARS, 48 C.F.R. pt. 252.219-7000.

\textsuperscript{130} In a memorandum dated October 23, 1995, the Under Secretary of Defense informed all major commands that, effective immediately, DoD suspended all of its SDB set-aside regulations. See Danielle Conway-Jones and Christopher Leon Jones, Jr., \textit{Department of Defense Procurement Practices After Adarand: What Lies Ahead for the Largest Purchaser of Goods and Services and Its Base of Small and Disadvantaged Business Contractors}, 39 How. L.J. 391 (1995). This suspension was predicated on the June 12, 1995 decision by the Supreme Court that raised the standard of review in cases challenging the constitutionality of federal affirmative action programs to strict scrutiny. See id. at 393; see also Adarand Constructors, Inc. v. Pena, 515 U.S. 200 (1995).

Adarand Constructors, Inc. (Adarand) is a highway construction company specializing in guardrail work, primarily as a subcontractor. Conway-Jones, supra, at 394. In 1989, Mountain Gravel and Construction Company (Mountain) was awarded a prime contract for a highway construction project by the U.S. Department of Transportation (DoT). Id. Mountain solicited bids from subcontractors for the guardrail portion of the project. Id. at 395. Adarand submitted the lowest bid. Id. Gonzalez Construction Company (Gonzales) also submitted a bid. Id. The prime contract’s terms gave additional compensation to Mountain for hiring subcontractors certified as SDBs. Although Adarand submitted the lowest bid, Gonzales was awarded the subcontract work, because, unlike Adarand, it was certified as a SDB. Id.

Adarand challenged DoT’s program which provided prime contractors with incentives to hire SDB subcontractors. Specifically, Adarand asserted that the presumption of social and economic disadvantage created by the Small Business Act and other federal regulations, discriminates on the basis of race in violation of the Fifth Amendment’s guarantee of equal protection. Id. at 397.

Adarand’s claim was rejected by the U.S. Court of Appeals for the Tenth Circuit when that court applied the “heightened scrutiny” standard. Id. The Court found that DoT acted within its discretion by adhering to the congressional mandate expressed in the Small Business Act. Id. In vacating the judgment of the Tenth Circuit, the Supreme Court held that “all racial classifications, imposed by whatever Federal, State, or local governmental actor, must be analyzed by a reviewing court under strict scrutiny.” Id. Without invalidating the specific classification in the Small Business Act, the Supreme Court held that the Tenth Circuit used the incorrect standard to evaluate Adarand’s challenge. Id. The Supreme Court remanded the case to the lower court to determine whether DoT’s incentive program is “narrowly tailored” to achieve a “compelling Government interest.” Id.
application of set-asides. For instance, an acquisition should not be set-aside for small disadvantaged businesses when: the product or service has been acquired successfully on a small business set-aside basis; the acquisition is for construction, including maintenance and repair, and is under $2 million, or is for dredging under $1 million; the acquisition is for architect-engineer services or construction design for military construction projects, without regard to dollar value; or the acquisition is reserved for the 8(a) program.

3. Section 8(a) Program

The 8(a) program takes its name from section 8(a) of the Small Business Act. The Act, as amended, created the 8(a) program to allow the Small Business Administration to assist small companies, owned and operated by socially and economically disadvantaged persons, develop their businesses. In order to participate in the 8(a) program, a firm must apply for membership.

A significant tool for 8(a) business development is the award of federal contracts. Under the program, the SBA acts as a prime contractor and enters into various contracts, including contracts for environmental remediation services, with other federal government departments and agencies. In its role as a prime contractor, the SBA then awards subcontracts for the performance of those contracts with small companies in the 8(a) program. The SBA’s subcontractors are referred to as 8(a) contractors.

Through their cooperative efforts, the SBA and an agency match the agency’s requirements with the capabilities of 8(a) contractors to establish a basis for the agency to contract with the SBA under the 8(a) program. There are three ways in which agency requirements become known by the SBA. The SBA can request, through a search letter, that the agency consider the capabilities of an 8(a) contractor

After studying the Supreme Court’s decision, DoD opined that its SDB program and implementing regulations may be indefensible. Accordingly, DoD’s suspension of its regulations equates to a probable loss of prime contract and subcontract opportunities for a segment of society that historically has been excluded from DoD’s procurement system. DoD’s suspensions equate to a probable loss of prime contract and subcontract opportunities for a segment of society that historically has been excluded from DoD’s procurement system. DoD’s suspensions equate to a probable loss of prime contract and subcontract opportunities for a segment of society that historically has been excluded from DoD’s procurement system.

132. At the time of this writing, DoD had not suspended its SDB set-aside regulations. For information only, the explanation of the SDB set-aside program will remain in this work.


135. Id.

and identify acquisitions to support the firm’s business plan.\textsuperscript{137} The SBA can identify a specific agency requirement for a particular 8(a) firm and then ask the agency contracting activity to offer the acquisition to the 8(a) program.\textsuperscript{138} Finally, agencies may review independently their acquisitions for the purpose of identifying requirements that may be offered to the SBA.\textsuperscript{139} Any contract resulting from these efforts may be awarded to the SBA for performance by eligible 8(a) firms on either a sole source or competitive basis.\textsuperscript{140}

4. Small Women-Owned Business

Congress found that women-owned businesses had become major contributors to the American economy.\textsuperscript{141} However, despite such progress, women as a group, remained subject to discrimination in entrepreneurial endeavors due to their gender.\textsuperscript{142} Women-owned businesses are subjected to both overt and subtle forms of discrimination which impact upon their ability to raise or secure capital, acquire managerial talents, and capture market opportunities.\textsuperscript{143} Congress found that the expeditious removal of these discriminatory barriers is essential to providing a fair opportunity for full participation in the free enterprise system.\textsuperscript{144} In response to these findings, Congress established the Assistance to Women Program.\textsuperscript{145}

In response to the need to aid and stimulate women’s business enterprise, the Federal Acquisition Regulation directs agencies to take appropriate action to facilitate, preserve, and strengthen women’s business enterprise, and to ensure full participation by women in the free enterprise system.\textsuperscript{146} Appropriate action includes the award of subcontracts under federal prime contracts.\textsuperscript{147}

The Small Business Act defines a small business concern owned and controlled by women as a small business concern which is at least fifty-one percent owned by one or more women; or, in the case of any publicly owned business, one in which at least fifty-one percent of the

\textsuperscript{137} See FAR, 48 C.F.R. pt. 19.803(a).
\textsuperscript{138} See FAR, 48 C.F.R. pt. 19.803(b).
\textsuperscript{139} See FAR, 48 C.F.R. pt. 19.803(c).
\textsuperscript{140} See FAR, 48 C.F.R. pt. 19.800(b).
\textsuperscript{142} Id.
\textsuperscript{143} Id.
\textsuperscript{144} Id.
\textsuperscript{145} Id.
\textsuperscript{146} See FAR, 48 C.F.R. pt. 19.901.
\textsuperscript{147} Id.
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stock is owned by one or more women and the management and daily business operations are controlled by one or more women.\textsuperscript{148} The federal government's goal for participation by small business concerns owned and controlled by women is set at not less than five percent of the total value of all prime contract and subcontract awards for each fiscal year.\textsuperscript{149}

B. SBA and the Federal Procurement Process

The U.S. Small Business Administration is responsible for ensuring that small businesses obtain a fair share of government contracts and subcontracts.\textsuperscript{150} The congressional mandate of the Small Business Act provides that the government aid, counsel, assist, and protect, insofar as is possible, the interests of small businesses to ensure that a fair proportion of the total purchases and contracts or subcontracts for property and services for the government be placed with small businesses.\textsuperscript{151} Amendments to the Small Business Act and current legislation have reinforced and expanded the SBA's vital mission.\textsuperscript{152} The SBA, working closely with federal agencies and the nation's leading contractors, carries out its procurement assistance responsibilities through prime contracting, subcontracting, and the use of the Procurement Automated Source System (PASS).\textsuperscript{153}

One of the SBA's functions is to determine the size of a business in order to categorize that business as small and, therefore, eligible for set-asides or preferences. The SBA establishes small business size standards on an industry by industry basis.\textsuperscript{154} Small business size standards are applied by classifying the product or service being acquired in the industry whose definition, as found in the Standard Industrial


\textsuperscript{150} See 13 C.F.R. § 124.101.


\textsuperscript{153} The PASS system was developed to assist small businesses in their efforts to obtain a fair share of government contract and subcontract awards. PASS utilizes information submitted by the firms to create a computerized directory that describes the profiles of over 250,000 small businesses, which are interested in competing for federal and private sector procurements. Prime contractors in search of small business subcontractors are charged a nominal fee to access the PASS. There is no charge, however, to be listed on the database. See DERP REPORT FY94, supra note 4.

\textsuperscript{154} See 13 C.F.R. § 121.

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Classification Manual,155 best describes the principal nature of the product or service being acquired,156 identifying the size standard the SBA established for that industry,157 and specifying the size standard in the solicitation so that offerors can appropriately represent themselves as small or large.158 The federal regulations require small businesses, small disadvantaged businesses, and women-owned businesses to represent their size status by written self certification.159 However, in order to participate in procurements as an 8(a) contractor, the SBA must verify the eligibility of a firm before offering membership.160

In considering the appropriate size standard for an industry, the SBA generally evaluates the structural characteristics of an industry by analyzing at least four industry factors.161 These factors include: average firm size; start-up costs; competition; and the distribution of firms by size.162 The SBA reports that, as a relatively new and developing industry, comprehensive industry data by which to build a structural analysis remains limited for the environmental remediation services industry.163 In order to overcome the obstacle of lack of data, the SBA constructed its own database of environmental remediation services firms based upon information from non-governmental sources.164

In constructing its database, the SBA was able to identify firms that perform activities associated with environmental remediation services. The SBA found that firms in nine industries, considered the primary industries from which firms perform some or all aspects of environmental remediation work, had to be reviewed to identify those firms in the business of providing environmental remediation serv-

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159. See FAR, 48 C.F.R. pt. 19.301(a)-(d); see also FAR, 48 C.F.R. pt. 19.703(a).
162. Id.
163. Data is limited because "[t]he statistical collection agencies of the Federal government, the primary sources of economic data on industries in the economy, do not publish data on environmental remediation services firms since this activity has not yet been identified . . . [by] the SIC system." Id.
164. See id.
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ices. These industries are: Heavy Construction (SIC 1629); Wrecking and Demolition Work (1795); Special Trade Contractors (1799); Local Trucking without Storage (4212); Refuse Systems (4953); Sanitary Services (8711); Commercial Physical and Biological Research (8731); and Testing Laboratories (8734). Volumes of data on these firms were then combined to derive information on the structure of the environmental remediation services industry.

What the SBA found was that larger firms captured a greater share of the total industry revenues in the environmental remediation services market. The SBA concluded that its findings warranted the establishment of a higher size standard than is generally in effect for each of the nine industries used to construct the database representing the environmental remediation services industry.

This conclusion is not surprising since environmental remediation service was introduced into the SBA’s SIC system as a sub-category that would not be assigned to a procurement unless the government’s requirements were for multi-discipline environmental remediation activities. Federal agencies developed and awarded large, multi-discipline contracts well before the SBA proposed its rules creating the environmental remediation services sub-category. These mega, full service contracts attracted large contractors with extensive resources to perform the required work. Conversely, the multi-discipline aspect of remediation contracts significantly reduced small business involvement in the industry because of a small business’s inability to perform a variety of remediation functions under one contract. It is evident that federal agencies benefit from the use of multi-discipline remediation contracts in their effort to cleanup sites quickly and cost effectively. Based upon the above, it is clear that the environmental remediation service sub-category was created to satisfy the govern-

165. Id.
166. See 59 Fed. Reg. 47,236.
167. Id. In order to perform a structural analysis of the environmental remediation services industry to develop a size standard, the relative differences of the four industry factors were calculated between the derived environmental remediation services industry and a comparison industry group. See id. at 39. The comparison industry group consisted of firms within the same nine SIC codes that composed the derived industry group. See 59 Fed. Reg. 47,236. However, the comparison industry group could not consist of firms engaged in environmental remediation work. From the differences between the comparison industry group and the derived industry group, a range of size standards was developed. Id.
168. Id. Based upon the relationship between the derived environmental remediation services industry and the comparison industry, the SBA determined that larger firms composed the derived group, while smaller firms made up the latter group. Id.
169. Id.
The SBA recognized, before issuing its final rule on this industry's size standard, that federal remediation and site restoration projects were already being designed as multi-year, multi-discipline projects with contract cost estimates falling between $20 and $30 million, with some contracts exceeding $100 million. Thus, it appears that any analysis by the SBA regarding this industry would have concluded with a size standard tailored to accommodate the mega remediation contracts being awarded by the federal government. In fact, the result of the increase in the size standard for the environmental remediation services industry is the categorization of businesses, previously considered large, as small for purposes of performing mega, remediation contract work.

C. Federal Acquisition Regulation and Small Business Requirements

The United States Government is the world’s largest buyer of goods and services. Purchases by military and civilian installations amount to approximately $200 billion a year. The government buys an array of commodities and services, including environmental remediation services. The public procurement of environmental remediation services, although a new and burgeoning industry, remains subject to federal procurement regulations. One of the rubrics of federal procurement is the requirement to seek full and open competition. However, DoD and other federal agencies are permitted to facilitate certain socio-economic programs through the procurement process.

According to the Federal Acquisition Regulation, by which the federal procurement statutes are implemented, there are three levels of competition. The first level is full and open competition. Under full and open competition, all responsible sources are permitted to compete for government contracts. The second level is full

170. Id.
171. Id.
173. See BROCKWEL HEYLIN, supra note 55.
174. Id.
and open competition after exclusion of sources. Under this level of competition, agencies are required to use competitive contracting procedures, but may restrict competition to the following: (1) small businesses; (2) firms located in labor surplus areas; (3) small, disadvantaged businesses (SDBs); and (4) SDBs that are members of the Small Business Administration's 8(a) program. The third level is other than full and open competition. Under this final level of competition, agencies may contract without providing for full and open competition. These contracts are often referred to as sole source contracts.

A portion of the government’s environmental remediation services requirements that are contracted out may have to be satisfied by small businesses: In 1994, the President of the United States issued a memorandum for the “Heads of Executive Departments and Agencies” which reaffirmed the policy of the federal government that a fair proportion of federal contracts be placed with small, small disadvantaged, and small women-owned businesses. The President also envisioned that small, small disadvantaged, and women-owned businesses have the maximum practicable opportunity to participate as subcontractors in contracts awarded by the federal government consistent with efficient contract performance. To achieve this policy goal, the President encouraged the use of various tools, including

181. Id.
182. Id.
183. See FAR, 48 C.F.R. pt. 6.204.
184. See 10 U.S.C. § 2304(c); 41 U.S.C. § 253(c); FAR, 48 C.F.R. pt. 6.301(a).
185. Specific authority is granted to DoD, inter alia, to contract without providing for full and open competition. See 10 U.S.C. § 2304(c). The following statutory authorities permit sole source contracting: (a) where there is only one responsible source and no other supplies or services will satisfy agency requirements, see FAR, 48 C.F.R. pt. 6.302-1; (b) unusual or compelling urgency, see FAR, 48 C.F.R. pt. 6.302-2; (c) industrial mobilization; or engineering, developmental, or research capability, see FAR, 48 C.F.R. pt. 6.302-3; (d) international agreements, see FAR, 48 C.F.R. pt. 6.302-4; (e) authorized or required by statute, see FAR, 48 C.F.R. pt. 6.302-5; (f) national security, see FAR, 48 C.F.R. pt. 6.302-6; or public interest, see FAR, 48 C.F.R. pt. 6.302-7.
187. See FASA § 7106.

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set-asides, price preferences, and use of 8(a) contractors. Congress also has supported the policy that the federal government use all practical means necessary, consistent with its needs and obligations, to implement and coordinate all federal department, agency, instrumentality policies, programs, and activities in order to foster the economic development, growth, and expansion of small business.

The President has established a government-wide goal for participation by small business concerns at not less than twenty percent of the total value of all prime contract awards for each fiscal year. The government-wide goal for small disadvantaged businesses is five percent. Despite these goals, each federal agency must set its own goal that presents, for that agency, the maximum practicable opportunity for small business concerns, small disadvantaged businesses, and small women-owned businesses.

Federal Acquisition Regulation, Part 19, Small Business and Small Disadvantaged Business Concerns, implements the acquisition related sections of the Small Business Act, the Armed Services Procurement Act, the Federal Property and Administrative Services Act, and Executive Order 12,138. The FAR provides rules for determining whether a concern is eligible for participation in small business programs; the respective roles of executive agencies and the Small Business Administration in implementing the programs; setting acquisitions aside for exclusive competitive participation by small business concerns; the rules pertaining to the Certificate of Competency program; the rules for the 8(a) program; and the use of women-owned small business concerns.

188. Id.
191. Id.
192. Id.
198. See infra note 382 for a brief discussion of the Certificate of Competency process.
D. Defense Federal Acquisition Regulation and Small Business Requirements

The Department of Defense has established its own policies and requirements regarding participation by small businesses in its procurement efforts. DoD has set a goal, the objective of which is to award five percent of the total combined amount of contract and subcontract dollars to small disadvantaged business concerns for each fiscal year from 1987 through the year 2000. The policy supporting this goal is to maximize the number of small disadvantaged business concerns in DoD contracting and subcontracting. The DoD has achieved its goals by awarding approximately forty percent of its contract and subcontract dollars to small businesses, which includes the attainment of the five percent goal for amounts awarded to SDBs. Because DoD has surpassed the government-wide goal of twenty percent, it does not set specific goals.

In order to achieve its five percent goal for contract and subcontract awards to small disadvantaged businesses, DoD has enunciated that it will use the 8(a) program, small disadvantaged business set-asides, evaluation preferences, advance payments, outreach, and technical assistance programs. Unfortunately, the forty percent and five percent goals imposed by DoD only need be accomplished by combining the contract or subcontract dollars for all industries. Therefore, small businesses engaged in certain skill intensive industries, such as the environmental remediation services industry, are not guaranteed any involvement in federal procurements for that industry. Regardless, DoD will still be able to meet its objectives with total contract and subcontract dollars going to other small businesses in different industries.

III. TYPES OF ENVIRONMENTAL REMEDIATION SERVICE CONTRACTS

The Departments of Defense and Energy are the two entities responsible for the majority of contamination of the environment by the

201. See supra notes 133 and 134.
203. See DERP REPORT FY94, supra note 4, at 59.
204. See DFARS, 48 C.F.R. pt. 219.201
federal government. As such, these entities, along with the EPA, are required to take the lead in implementing efficient and effective cleanup programs to ensure that the federal government remains in compliance with environmental laws and regulations. Since DoD and DoE are heavily engaged in cleanup contracting, their contracting instruments and policies will briefly be examined to determine the existence of new or augmented opportunities for small businesses to participate in the environmental remediation services industry.

A. Total Environmental Restoration Contracts

The use of traditional contractual instruments and standard contracting procedures have proved ineffective and unwieldy in the government's effort to cleanup that part of the environment that it has degraded or destroyed. According to the government, one of the major obstacles to the successful cleanup of contamination of the environment is the confusion created by the placement of more than one contractor with overlapping responsibilities on the same installation. Such an overlap in contractor work forces is thought to render project management, contract administration, and cost control extremely inefficient and expensive. In response to the void in effective contracting instruments, the Corps instituted the Total Environmental Restoration Contract (TERC) approach to environmental remediation. The TERC functions as an alternative acquisition method, to be used when it is deemed more prudent and in the government's interest to have a single contractor coordinate and accomplish all aspects of remediation on selected large, complex sites.

Environmental cleanup work is very costly to complete and can be even more costly if the wrong contracting approach is used. Site characterization and the selection of the correct remediation process are critical elements affecting the determination of the appropriate contracting approach. However, site characterizations, at a certain point, must be abandoned when they become too expensive to complete and produce little or no benefit. It is at this point where contractor accountability and responsibility become paramount.

205. See DERP REPORT FY94, supra note 4.
206. See TERC ACQUISITION PLAN, supra note 12.
207. Id.
208. Id.
209. Id.
210. Id.
211. See TERC ACQUISITION PLAN, supra note 12.
Implementation of the most feasible remediation process then becomes the only means of progressing toward the commencement of a cleanup project. Therefore, it is imperative that flexible contracting tools are in place and available when considering the acquisition strategy that must be used at a given site.

The Corps has considered the various contracting methods, strategies, and approaches currently in use by the EPA, the Navy, the Air Force Center for Environmental Excellence and others, and has concluded that the TERC approach to contracting for environmental remediation services at large, complex sites is the most effective procurement method to accomplish cleanups.\textsuperscript{212} The Corps believes that the TERC approach will bring the government more in line with the way private industry accomplishes environmental cleanup projects.\textsuperscript{213} The advantages of the TERC approach to remediation contracting, as expressed by the Corps, include the clear identification of the responsible contractor, more effective control by the contractor over the work it is responsible for completing, faster resolution of problems encountered on the site, more effective management and interface between contractors (primes and their subcontractors) in scheduling and completing work, and faster and more fluid operation on site.\textsuperscript{214} The Corps posits that the TERC method drives a project to faster completion, saves time and money, and provides reasonable profit for primes and subcontractors.\textsuperscript{215}

B. Department of Energy Environmental Remediation Contracts\textsuperscript{216}

The Department of Energy has statutory responsibility for activities connected with the major program areas of Defense Programs,
Nuclear Energy, and Energy Research. To carry out its responsibilities in these areas, DoE operates a large industrial complex located at various production, processing, testing, and research and development installations across the country. This complex has generated and will continue to generate quantities of radioactive, hazardous, and mixed wastes that must be managed, cleaned up, and disposed of. The Department's policy regarding these matters is to conduct its operations in full compliance with applicable federal, state, local health and safety, and environmental statutes.

Environmental restoration is concerned with the assessment and cleanup of facilities and sites that are no longer part of active operations. In response to its need to effectively and efficiently cleanup sites and disprove the perception that its contractors have become part of the cleanup problem, DoE has implemented the Environmental Restoration Management Contractor (ERMC) approach for cleaning up the nation's nuclear weapons complex. According to DoE, ERMC calls for a management contractor, experienced in environmental restoration, to focus solely on the environmental restoration of a site, subcontracting out all but the management and oversight of the cleanup.

The Department has made the ERMC approach a central element in its environmental restoration plans. The ERMC would be responsible for targeting more contractors with cleanup expertise, in accordance with RCRA and CERCLA, and making these contractors accessible to DoE. The ERMC would be responsible for improving management control of the environmental restoration program, re-

\[217. \text{See U.S. Department of Energy, Environmental Restoration and Waste Management Five Year Plan 80 (1993). Agency responsibility for other agency programs is not atypical. Therefore, it is not unusual to provide nuclear operations in support of various Defense Programs.}

\[218. \text{Id.}

\[219. \text{Id.}

\[220. \text{Id.}

\[221. \text{Id.}

\[222. \text{U.S. General Accounting Office, DOE Management: Implementing the Environmental Restoration Management Contractor Concept, Testimony to the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce, GAO Testimony Rep. No. RCED-94-86 (Dec. 1, 1993) (testimony by Victor S. Rezendes, Director, Energy and Science Issues, Resources, Community, and Economic Development Division, Department of Energy). DoE concentrates its cleanup efforts on its own nuclear installations. Therefore, DoE may not look to the Corps to perform large remediation work. Rather, agencies, like DoE, may coordinate with the Corps if a TERC contract is already in place at a nearby installation, and the required remediation work can be accomplished under the existing TERC contract.}

\[223. \text{Id.}

\[224. \text{Id.}
ducing cleanup costs, and facilitating more timely restoration of sites.225

C. Background of Total Environmental Restoration Contracts—Cradle to Grave Environmental Contract

Total Environmental Restoration Contracts call for the implementation of a number of indefinite-delivery type, remediation contracts that allow a single contractor to provide total remediation for a selected installation from the initial study phase through short term operation and maintenance.226 Total Environmental Restoration Contracts are issued as Indefinite-Delivery/Indefinite-Quantity contracts.227 The basic contracts contain all of the clauses applicable to A-E, service, and construction type ID/IQ contracts.228

The scope of work in TERC contracts requires that the contractor accomplish all pre-design, design, and remediation tasks on a specified or non-specified installation.229 The projected maximum dollar value of a TERC is $200 million, but will vary in each contract.230 The contract performance period for TERC contracts runs from four years with two additional three year options for a possible contract period of ten years.231 Any size contractor fortunate enough to obtain a TERC contract will likely gain greater experience and expertise in the area of remediation, making that contractor realize reasonable profit as well as securing a position as a future prospect for additional federal remediation work.

225. Id. The ERMC contract is very similar to the TERC. However, minor differences exist with regard to the degree of involvement of the agency in the administration of the contract. For instance, DoE tends to rely on its ERMC contractors for administration and management of all aspects of environmental restoration. Id. Cf. U.S. DEPARTMENT OF ENERGY, DRAFT CONTRACT FOR INTEGRATED TEAM MANAGEMENT OF THE SAVANNAH RIVER SITE (June 1995) (on file with author). The Corps plays a greater role in the management and administration of its entire restoration program. See TERC ACQUISITION PLAN, supra note 12.

226. See TERC ACQUISITION PLAN, supra note 12.
227. See supra note 98.
228. See TERC ACQUISITION PLAN, supra note 12.
229. Id.

230. Id. For example, on August 25, 1995, the U.S. Army Engineer District, Baltimore awarded a $330 million dollar TERC to ICF Kaiser with Picatinny Arsenal as the anchor installation and Aberdeen Proving Ground as a specified site. See Brian K. Peckins, Information Paper, Total Environmental Restoration Contracts (TERC) (Jan. 16, 1996) (unpublished manuscript, on file with author).

231. See TERC ACQUISITION PLAN, supra note 12.
1. Multi-Year TERC and The Competition in Contracting Act

Contracting methods must be tailored to a project’s requirements, be innovative when needed, but most important, be legally sound at all times. The Corps contends that TERCs do not replace existing contracting tools because not every environmental cleanup project is appropriate for TERC, and no one method is appropriate in all circumstances. Rather, the Corps states that TERCs are used to complete actual remediation, starting at any stage of the investigation and/or remediation process, provided funds are available, and the performance and cost of work accomplished by the TERC is acceptable. The Corps states that TERCs are designed to complement existing contracting tools and comply with the Competition in Contracting Act (CICA).

Specifically, the Corps posits that TERCs do not unduly limit competition in violation of CICA, because the total package approach of the TERC is necessary to satisfy the minimum needs of the agency.

As stated above, TERC contracts can have a performance period of ten years. A ten-year contract, in and of itself, is not illegal. However, there are a number of factors to consider when determining the appropriate contract term. In the case of services, the total of the basic and option periods of a contract shall not exceed five years, unless approved in accordance with agency procedures. This is a regulatory limitation regarding the use of options imposed by the FAR.

With agency approval, the performance period of a contract can extend beyond five years. The Service Contract Act (SCA) also imposes a five year limit on a contract’s duration. The TERC, because of the services required, is subject to the Service Contract Act. Because of the Service Contract Act limitation, TERC contracts were given a base of four years, not five years, with the ten years made up by the addition of two, three year, options. CICA is not violated by the exercise of the three year option because all prospective offerors are on notice of the duration of the TERC contract performance pe-
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period. Although the SCA limits service contracts to a period of five years, the TERC approach is not violative of the Act, because the extension of a contract through the exercise of option years creates a "new" contract for purposes of the SCA. 240

2. The Total Environmental Remediation Contract's Bundling Mechanism Can Unduly Restrict Competition

Small businesses are losing opportunities to perform federal environmental remediation work because of the bundling of federal contract requirements into one package. The Corps' TERC contracts and DoE's ERMC contracts are just two examples of contract bundling. Contract bundling directly affects the level of competition received by the government, because only a few sources can successfully satisfy the requirements of these, too often, large and complex contracts.

Contract bundling of environmental remediation services has the effect of restricting competition to large multi-discipline environmental remediation service firms. As such, bundling of these environmental remediation requirements may be a violation of CICA and relevant FAR provisions, if TERC contracts are unduly restrictive of competition. Presently, the bundling or "total package" mechanism of TERC contracts has not been challenged by small businesses or other entities not possessing the financial resources to perform multi-discipline remediation. Total environmental restoration contracts have not been the subject of challenges because otherwise interested parties have, to date, acquiesced that they are not in a position to protest the restrictive nature of these contracts. Unfortunately, those contractors who do protest the bundling of contract requirements find themselves fighting an uphill, and almost impossible, battle against the reasonableness of agency action standard. 241

In CardioMetrix, 242 a small business concern protested the decision of the United States Coast Guard to consolidate its requirements for clinical laboratory services at twenty-one Coast Guard clinics throughout the east coast. Under the consolidated solicitation, the successful contractor was required to retrieve specimens from the

240. See 29 C.F.R. § 4.143(b).
twenty-one clinics previously operated and managed as separate, independent sites. The protester alleged that by consolidating the requirements of the twenty-one separate clinics, the Coast Guard effectively eliminated the possibility of competition from small business firms. The Coast Guard proffered that the decision to use a single regional contractor was based on the agency’s past and present experience using smaller, multiple contracts that produced higher test prices due to low quantities, divergence in test methodology, and numerous billing problems resulting in interest payments and costly contract administration.243

Before deciding the protest, the Comptroller General stated:
The Competition in Contracting Act of 1984 generally requires that solicitations include specifications which permit full and open competition and contain restrictive provisions and conditions only to the extent necessary to satisfy the needs of the agency. . . . Procurements by an agency on a total package basis can restrict competition; however, the use of such an approach is proper where required to satisfy the agency’s minimum needs . . . .244

In deciding against the protester, the Comptroller General held that past procurement difficulties from multiple procurements could reasonably substantiate the need for a single contract provider. Thus, the Comptroller General found that the Coast Guard’s justifications for consolidating its requirements were adequately documented, reasonable, and necessary to meet its minimum requirements. CardioMetrix is an example of an agency defining its minimum needs in such complex and broad terms so as to eliminate the possibility of competition by small businesses. Similarly, TERC contracts are procured on a total package, large scale basis, rendering the possibility of small business participation in remediation work remote.245

The confusion that currently surrounds the practice of contract bundling and the difficulty in collecting data on its use result in large part from the lack of a single, agreed upon definition.246 Three separate laws provide different definitions of contract bundling. The first

243. The Comptroller General did not discuss whether the problems encountered by the Coast Guard could have been avoided or rectified by providing defined performance requirements. For example, the Coast Guard was concerned with divergence in test methodology. Conceivably, if the Coast Guard determined the most advantageous test methodology, it could have included the chosen methodology in its specifications.

244. CardioMetrix, 95-2 CPD ¶ 64, at 2.


law requires agencies to take specific action to document the bundling of its requirements, and its definition was incorporated into the FAR.\textsuperscript{247} The other two laws require studies of bundling, but each uses a different definition to explain what should be studied.\textsuperscript{248} The SBA has also developed its own definition to characterize contract bundling.\textsuperscript{249} Small businesses may find that challenging three sets of laws defining contract bundling may drain the resources they could use to compete for remediation contracts in the future.

It is no secret that the federal government markedly benefits from bundling environmental remediation requirements into one acquisition.\textsuperscript{250} Contract bundling allows the federal government to

\begin{itemize}
\item \textsuperscript{247} FAR, 48 C.F.R. pt. 19.202-1, Encouraging Small Business Participation in Acquisitions, states in pertinent part:
\begin{itemize}
\item \textsuperscript{(e)(1)} Provide a copy of the proposed acquisition package to the SBA procurement center representative at least 30 days prior to the issuance of the solicitation if—
\begin{itemize}
\item \textsuperscript{(i)} The proposed acquisition is for supplies or services currently being provided by a small business and the proposed acquisition is of a quantity or estimated dollar value, the magnitude of which makes it unlikely that small businesses can compete for the prime contract, or
\item \textsuperscript{(ii)} The proposed acquisition is for construction and seeks to package or consolidate discrete construction projects and the magnitude of this consolidation makes it unlikely that small businesses can compete for the prime contract.
\end{itemize}
\end{itemize}


\item \textsuperscript{248} For example, Public Law No. 102-366 defines bundling as follows:
\begin{itemize}
\item \textsuperscript{[T]he term contract bundling or bundling of contract requirements refers to the practice of consolidating into a single large contract solicitation multiple procurement requirements that were previously solicited and awarded as separate smaller contracts, generally resulting in a contract opportunity unsuitable for award to a small business concern due to the diversity and size of the elements of performance specified and the aggregate dollar value of the anticipated award.}
\end{itemize}


\item In addition, Public Law No. 103-160 defines contract bundling as follows:
\begin{itemize}
\item \textsuperscript{[T]he term contract bundling and bundling of contract requirements means the practice of consolidating two or more procurement requirements of the type that were previously solicited and awarded as separate smaller contracts into a single large contract solicitation likely to be unsuitable for award to a small business concern due to—
\begin{itemize}
\item \textsuperscript{(1)} the diversity and size of the elements of performance specified;
\item \textsuperscript{(2)} the aggregate dollar value of the anticipated award;
\item \textsuperscript{(3)} the geographical dispersion of the contract performance sites; or
\item \textsuperscript{(4)} any combination of the factors described in [the above listed paragraphs].}
\end{itemize}
\end{itemize}


\item SBA’s definition of contract bundling reads as follows:
\begin{itemize}
\item Bundling is the consolidation of two or more requirements, descriptions, specifications, line items or statements of work, which individually were or could be performed by small business; resulting in a contract opportunity for supplies, services, or construction which may be unsuitable for award to a small business concern due to the diversity and size of the performance elements, and/or the aggregate dollar value of the anticipated award, and/or the geographical dispersion of the contract performance sites.
\end{itemize}

See SBA Procedural Notice, Control No. 6000-582 (Jul. 9, 1993).

\item The Environmental Remediation Services SIC code 8744 is not to be assigned to a procurement unless that procurement is composed of three or more distinct industries identified

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achieve efficiencies in contract formation and administration and economies of scale. Contract bundling provides agencies the opportunity to procure an array of environmental remediation requirements in a single acquisition. In addition, indefinite-delivery contracts allow agencies to order their bundled requirements on a repetitive basis.

Conversely, contract bundling is detrimental to the viability of small businesses seeking growth in the environmental remediation services industry. Small businesses and their advocates believe that contract bundling is detrimental to the small business's ability to compete for prime contract awards, because these contracts require widely varied expertise and financial resources that small businesses often lack.251

For example, in Airport Markings of America, Inc.,252 four protesters challenged the Air Force's issuance of four solicitations for rubber and paint removal and restriping at various airfields. Each of the four solicitations required prospective contractors to perform work at no less than sixteen airfields. The protesters, all of whom were small businesses, stated that the Air Force, by consolidating the rubber and paint removal and the restriping, and by procuring the consolidated requirements in large regional packages, precluded effective competition. In addition, the protesters asserted that small businesses are unable to make the large capital investment required to purchase the necessary additional equipment or obtain bonds, and cannot subcontract or enter into joint ventures on a cost-effective basis.

Furthermore, the protesters claimed that the bundling mechanism employed by the Air Force unfairly favored larger companies that, in the past, have performed regional requirements like those found in the subject solicitations. Finally, the protesters urged that using a total package approach to structure the solicitation would cost the agency more money because of reduced competition, and would result in airfields being closed for longer periods of time.

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252. Airport Markings of America, Inc., B-238490; B-238490.2; B-238490.3; B-238491; B-238491.2; B-238491.3; B-238497; B-238497.2; B-238498; B-238498.2; and B-238498.3, 90-1 CPD ¶ 543 (1990).
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The Air Force argued that combining the removal and restriping was necessary, because the prior method of managing the two requirements separately resulted in airfields being closed for extended periods of time or closed on short notice. According to the Air Force, coordinating individual removal contract schedules with regional striping schedules to ensure that airfields were left unmarked for the shortest duration was both time consuming and costly. Finally, the Air Force stated that there existed at least five firms able and willing to compete for the consolidated contracts.

The Comptroller General, in sustaining in part the protest, stated that the Air Force provided no justification for its decision to aggregate eighty-four airfields under four contracts. Specifically, the Comptroller General held that the question is not whether potential competitors can surmount barriers to competition; but rather, whether the barriers themselves are required to meet the government's minimum needs. The Comptroller General cautioned that CICA requires that the agency obtain full and open competition, defined as meaning that all responsible sources are permitted to submit sealed bids or competitive proposals; therefore, even though several offerors have responded to one solicitation, this does not negate the fact that other responsible sources could have been excluded, without justification, in violation of CICA. The protesters prevailed, because the Air Force failed to demonstrate that a single award for each of the four regions met some rational need or served any purpose other than possibly facilitating the administration of the contracts.

Accordingly, in Airport Markings of America, Inc., the Comptroller General implicitly recognized that bundling contract requirements, without the proper justifications, can impede competition and effectively destroy small business participation by otherwise excluding these responsible firms from competition. The negative results of contract bundling are the same when solicitations for environmental remediation services are issued as large, multi-discipline requirements. The result is the wholesale exclusion of small businesses from the en-

253. See Allfast Fastening Systems, Inc., B-251315, 93-1 CPD ¶ 266 (1993); National Customer Engineering, B-251135, 93-1 CPD ¶ 225 (1993) (holding that a solicitation requirement that both hardware and software maintenance services be provided by the same contractor unduly restricts competition where the record does not provide a reasonable basis for the determination that the combined requirement reflects the agency's minimum needs).
environmental remediation services industry as prime contractors for lengthy periods of time.\footnote{254}{Small businesses can be excluded from serving as prime contractors on environmental remediation contracts for up to ten years, because agencies, like DoD and DoE, have approved multi-year remediation contracts for this length of time.}

Small businesses are not alone in their concern regarding contract bundling. For many years, Congress expressed concern about the extent and impact of consolidating or bundling requirements into large acquisitions that diminish small business or small disadvantaged business opportunities to participate in federal procurements.\footnote{255}{See DoD Contracting: Extent and Impact of Contract Bundling Is Unknown, supra note 246.} This concern resulted in an amendment to the Small Business Act to review all proposed bundled acquisitions for goods or services that small businesses were currently providing, but that may be unlikely for award to a small business.\footnote{256}{See Small Business Act Amendments of 1990, Pub. L. No. 101-574, 104 Stat. 2814.}

The current FAR provisions require contracting officers to identify bundled acquisitions and prepare written explanations of why bundling is necessary.\footnote{257}{See FAR, 48 C.F.R. pt. 19.202-1(e)(2)(i).} The SBA must also review the contract action.\footnote{258}{FAR, 48 C.F.R. pt. 19.202-1(e)(4).} However, as is evident from the issuance of TERC and ERMC contracts, determining the propriety of bundling contract requirements to restore the environment takes a back seat to achieving a perceived speedy cleanup of contaminated sites. This view is supported by the Comptroller General’s decision in \textit{A&C Building and Industrial Maintenance Corp.},\footnote{259}{A&C Building and Industrial Maintenance Corp., B-230839, 88-2 CPD \S 67 (1988).} where he stated:

\begin{quote}
[T]he possibility of obtaining economies of scale or avoiding unnecessary duplications of costs may justify [procurements on a total package or consolidated basis]. The decision whether to procure by means of a total package or consolidated approach, or to break out divisible portions of the total requirement for separate procurements, is a matter generally within the discretion of the contracting agency, and we will not disturb the exercise of that discretion absent a showing that the agency’s determination lacks a reasonable basis.\footnote{260}{Id. at 2.}
\end{quote}

In this regard, it is apparent that the concept of contract bundling is at odds with the federal government’s socio-economic policies because of the adverse effect that contract bundling has on small business participation in federal procurements. The FAR directs
contracting officers to provide small businesses with an equal opportunity to compete for all contracts they can perform, consistent with the government’s interests.\textsuperscript{261} However, when contracting officers determine that bundling is in the government’s interest,\textsuperscript{262} the FAR establishes an explanation and review process that can be used to justify contract bundling.\textsuperscript{263}

Choosing the government’s socio-economic goals over the government’s best interest in procuring goods and services at reasonable prices, or vice versa, would result in extreme unfairness or profound inefficiencies in the government’s conduct of environmental remediation. Therefore, a compromise must be struck. As recommended by the Corps, TERC contracts must be used only in those instances where site cleanup is extremely complex and covers an extensive portion of land.\textsuperscript{264} In addition, TERC contracts must provide for significant involvement by small business.\textsuperscript{265}

These contracts do contain minimum goals for utilization of small businesses as subcontractors. In addition to maintaining subcontracting goals for defense procurement, it is the author’s opinion that DoD should maintain separate, enumerated goals for federal environmental remediation and restoration contracts because of the very market uniqueness of the industry.\textsuperscript{266} Specifically, DoD and other federal agencies should establish subcontracting goals independent of those goals set for more traditional industries. Moreover, bundled contracts should receive special review by DoD and the SBA to routinely monitor the effectiveness and the future necessity for this type of contract tool, presently issued only on an unrestricted basis.

\textsuperscript{261} See FAR § 19.202.

\textsuperscript{262} See Border Maintenance Service, Inc., B-260954; B-260954.2, 95-1 CPD ¶ 287 (1995) (determining that the agency properly bundled requirements for building maintenance services at separate facilities in four cities into total package commercial facilities management procurement—notwithstanding the agency’s previous practice of awarding separate contracts for custodial services and for maintenance services—where the agency’s overall needs can be met most effectively by awarding one contract that shifts the responsibility for managing these facilities to the contractor).

\textsuperscript{263} Id.

\textsuperscript{264} See TERC ACQUISITION PLAN, supra note 12.

\textsuperscript{265} See infra text accompanying note 320-23 (explaining that the Corps has a subcontracting goal of 40 percent small business participation in its TERC contracts and an eight percent goal for SDB participation).

\textsuperscript{266} DoD and SBA should take the lead with regard to establishing separate goals for small business involvement in remediation efforts. DoD, for example, has an interest in satisfying its remediation requirements and increasing the industrial base of remediation contractors. The SBA would promote its interests by creating greater opportunities for small business participation in a lucrative defense industry.
3. TERCs' Suitability for Small Business Set-Asides

The Corps of Engineers along with the Small Business Administration have determined that TERC contracts are not suitable for set-asides to small and small disadvantaged businesses because of the size, complexity, liability, cash flow, capital investment and capability issues attendant with these firms. Notwithstanding the above, the Corps of Engineers continues to maintain its policy, as discussed below, that these firms will receive special consideration under the TERC process.

Traditional approaches to enhance small and small disadvantaged business participation in the environmental remediation services industry have been unsuccessful. The track record for involving small and small disadvantaged business in this industry has been sluggish because of liability issues, specialized training and expertise requirements, and the complexities and uncertainties of environmental cleanup work. Even more devastating to small and small disadvantaged businesses is the lack of incentive that prime contractors have to involve these firms in the remediation process in a material and meaningful way. This lack of incentive does not at all comport with the procurement goals and practices of the federal government, which are to foster increased competition and develop larger markets for the services required by the federal government. Because determinations have been made by the Corps of Engineers and the SBA that traditional small and small disadvantaged business programs are less than successful in the environmental remediation services industry, new and innovative approaches must be developed that will have the result of significantly including these firms in the cleanup and remediation markets.

IV. ONGOING DEVELOPMENT OF SMALL BUSINESSES IN THE ENVIRONMENTAL REMEDIATION SERVICE INDUSTRY

For many small, small disadvantaged, and small women-owned businesses, environmental cleanup contracts at federal facilities might initially seem out of reach. However, the Departments of Defense

267. See TERC Acquisition Plan, supra note 12.

268. Id.; see also infra Part IV.C. for the Corps' response on achieving small business participation in remediation contracting.

269. See TERC Acquisition Plan, supra note 12.

270. Id.
and Energy, among others, offer a host of ways small firms can enter and prosper in the lucrative federal facilities environmental remediation market. In fact, small and small disadvantaged businesses now hold a competitive advantage of sorts for some types of contracts, as federal agencies have or are in the process of implementing programs to link them with large companies that traditionally win the large facility restoration pacts. While the specifics differ between military branches and federal agencies, recent cleanup contracts have required prime contractors to either allocate a fixed percentage of the award to small businesses or small disadvantaged businesses, or prove to the government that such an allocation is not feasible.

A. Mentor-Protégé Program

In 1990, Congress mandated the Pilot Mentor-Protégé Program. The purpose of the program is to provide incentives for prime contractors to increase small disadvantaged business participation in DoD subcontracting. The primary goal of the program is to foster the business development of small disadvantaged businesses (SDBs) so as to increase the capabilities of these firms to participate as subcontractors and suppliers in DoD contracts, other government contracts, and commercial contracts.

The program authorizes the formation of mentoring relationships between major prime contractors and subcontractors, who are approved by DoD as mentor firms. In order to be approved as a mentor, a company must be performing under at least one active subcontracting plan negotiated pursuant to FAR Part 19.7. Companies interested in becoming mentors are exclusively responsible for the selection of SDBs as protégés.


272. Id.

273. Id.

274. Id.


276. Id.

277. Id.

Once a mentor is approved, it will choose an SDB or several SDBs as protégés. Small disadvantaged businesses selected as protégés by the mentor must meet the eligibility criteria with respect to size and disadvantaged status set forth in the DoD policy. Mentor and protégé(s) work together to establish a tailor made developmental assistance program that meets both the needs of the mentor and those of the protégé. After establishing the guidelines of the relationship, the mentor-protégé team submits an agreement to DoD. The Department then reviews the mentor-protégé agreement for compliance with statutory and regulatory requirements.279

The mentor-protégé program authorizes myriad degrees of assistance from the mentor to the protégé. For example, a mentor firm may provide assistance with the development of general business management skills, financial and personnel management training, marketing, and/or proposal preparation assistance.280 Mentor firms may also expand their involvement with protégés by providing loans and limited capital investment to assist a protégé in meeting working capital requirements.281 Additionally, a mentor is authorized to award subcontracts to its protégés on a noncompetitive basis.282

A mentor contractor may have multiple protégés. However, funds are not available to provide the mentor contractor with additional incentives for additional protégés that it decides to assist, despite Congress’ support of this program with the appropriation of $120 million—$30 million in fiscal year 1992 and $45 million in fiscal years 1993 and 1994.283 In addition, the current rules of the pilot program allow a disadvantaged business to have only one mentor. These funding and program limitations have stirred much debate, because the effect of the rule is to substantially reduce the number of small disadvantaged businesses involved in the early stages of the program.

The mentor-protégé program provides incentives in the form of direct cash reimbursement,284 credit toward SDB subcontracting

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280. Id.
281. Id.
282. Id.
283. Id.
284. A mentor firm may be reimbursed only for the cost of developmental assistance incurred by the mentor firm and provided to a protégé firm pursuant to an approved mentor-protégé agreement and the following:

   Assistance by mentor firm personnel in—(i) General business management, including organizational management, financial management, and personnel management, marketing, business development, and overall business planning; (ii) Engineering and technical matters such as production inventory control, quality assurance; and (iii) Any
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goals,285 or a combination of both, or authority to charge these costs as allowable indirect costs,286 with an option to credit any unreimbursed costs against established subcontracting goals, ultimately to encourage a mentor to provide developmental assistance to its protégés.287 According to the Defense Contract Audit Agency, although the law does not allow the use of mentor-protégé agreements as a selection factor in awarding contracts, selection might still be influenced by the existence of the agreements, insofar as evaluation factors can include the degree of participation in the procurement by small disadvantaged businesses as subcontractors.288

Because implementation of the mentor-protégé program has been slow, sufficient information is not available to determine whether the program’s purposes are being achieved.289 However, the addition of this program to existing DoD sponsored resources for contract opportunities to SDBs may result in increased business for small firm contractors seeking entry into the environmental remediation services industry.

285. Credit to SDB subcontracting goals is available to mentor firms that are not reimbursed for developmental assistance costs incurred on behalf of a protégé firm. See DFARS, 48 C.F.R. pt. 219.71, App. I-109(a) and (b). The amount of credit a mentor firm may receive for such unreimbursed developmental assistance costs are equal to: four times the total amount of such costs attributable to assistance provided by SBDCs, HBCUs, MIs, and PTACs; three times the total amount of such costs attributable to assistance furnished by the mentor’s employees; and two times the total amount of other such costs incurred by the mentor in carrying out the developmental assistance. DFARS, 48 C.F.R. App. I-109(d)(1)-(3).

286. Costs reimbursed via inclusion in indirect expense pools may be reimbursed only to the extent that they are otherwise reasonable, allocable, and allowable. DFARS, 48 C.F.R. App. I-108(b).

287. Id.


289. Id.
B. Private Enterprise Teaming, Pooling, and Consortia Arrangements

In addition to federal contracts set aside for small businesses and small disadvantaged businesses, both DoE and DoD require their contractors to allocate specific percentages of their subcontracts to such firms. Federal agencies also encourage teaming of different sized firms to compete for complex jobs and to promote mentor-protégé relationships between such firms.

The SBA has developed guidance on business pooling agreements which would allow groups of smaller companies to compete together against larger companies for federal procurements without: (1) losing their small business or small disadvantaged business status or (2) having the size standard waived in the face of such arrangements. With pooling agreements, small businesses would be allowed to form a conglomerate of sorts in order to compete, on an unrestricted basis, with large businesses for the large environmental remediation contracts.

The inception of a small business voluntary assistance program sponsored by large private contractors, who are in turn rewarded in some fashion by the federal government, is a relatively new idea conceived to increase involvement of small businesses in nontraditional federal procurements. However, assistance is one thing, actual performance of complex work is another. In order for small businesses to begin to see significant involvement in the environmental remediation services industry, they must be given an opportunity implement the skills acquired from large mentor contractors.

The most logical next step for small businesses that have either participated in some form of mentor-protégé arrangement or possess remediation experience, despite the lack of any formal assistance, is to seek out contractors, small or large, to comprise a team to compete

290. FAR, 48 C.F.R. pt. 9.601 states that a contractor team arrangement means an arrangement in which—
   (a) Two or more companies form a partnership or joint venture to act as a potential prime contractor; or
   (b) A potential prime contractor agrees with one or more other companies to have them act as its subcontractors under a specified Government contract or acquisition program.

291. Id.; see also FAR, 48 C.F.R. pt. 9.602(b) (stating that “[c]ontractor team arrangements may be appropriate particularly in complex research and development acquisitions, but may be used in other appropriate acquisitions, . . .”).

292. SUSAN MONGÉ, U.S. SMALL BUSINESS ADMINISTRATION—SMALL BUSINESS POOL GUIDANCE (on file with author).
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for remediation work let by the federal government. Teaming arrangements allow firms of different sizes to combine to compete for, in this case, federal environmental remediation work.\textsuperscript{293}

Since firms of differing sizes can combine for purposes of submitting an offer and performing work, generally they can be allowed only to compete on an unrestricted basis.\textsuperscript{294} In fact, the federal government, particularly, DoD and DoE, have gone on record to encourage the use of small business consortia and teaming arrangements to compete, on an unrestricted basis, for environmental remediation work.\textsuperscript{295} It is reasonable to presume that the use of teaming arrangements would increase the likelihood that small business participation would increase in nontraditional federal procurements. In addition, small businesses working together on larger contracts would facilitate the sharing of valuable information and expertise.

Teaming arrangements are attractive to both small and large contractors and the federal government.\textsuperscript{296} Obviously, small firms receive valuable experience from working alongside their larger team members. In addition, small firms become exposed to more contractors that provide remediation services to the government, resulting in the opportunity to form business relationships that can endure past the life of a remediation project. Large contractors that lead a team also can benefit from the arrangement. The obvious benefits include, but are not limited to, the following: meeting or exceeding a solicitation's requirement to set-aside a certain percentage of subcontracting dollars to small businesses; creating a larger base of knowledgeable and effective subcontractors, thereby increasing competition for future remediation subcontracts; and providing an opportunity to establish a unitary methodology to compete for and perform remediation work, by including all team members in all stages of the procurement.

The benefits of teaming have been proven by the Air Force. The Air Force Center for Environmental Excellence awarded eighteen in-

\textsuperscript{293} See FAR § 9.603. "The Government will recognize the integrity and validity of contractor team arrangements; provided, the arrangements are identified and company relationships are fully disclosed in an offer. . . ."

\textsuperscript{294} Id.


\textsuperscript{296} Contractor team arrangements may be desirable from both a government and industry standpoint, because the companies involved are able to complement each other's unique capabilities and offer the government the best combination of performance, cost, and delivery to satisfy the government's requirements.
definite-delivery, indefinite-quantity contracts with a potential value of $1.24 billion. The awards included two nationwide and sixteen base specific awards contemplating full-service remediation work. The Air Force received seventy-four proposals for nineteen contracts, with ten contractor teams winning all eighteen awards. An industry observer noted that the “who’s who” of environmental cleanup were completely shut out from receiving any awards. The Air Force refused to release the disappointed offerors, but one Air Force official acknowledged that “quite a few big companies did not make the cut as team leaders.”

The same benefits of teaming also inure to small businesses that combine to compete for environmental remediation work. Of the eighteen contracts awarded by the Air Force, four small businesses received the prime contracts. All four small business firms led a team that consisted of one large firm. Although none of the small businesses awarded prime contracts teamed with other small businesses to receive awards, the small business primes will gain significant expertise in environmental remediation work such that in later cleanup procurements, these same primes will be able to provide a teaming or mentor-protégé opportunity for other small and small disadvantaged businesses.

The award of the four contracts to small business primes, two awarded on an unrestricted basis and two on a set-aside basis, is significant, because the Air Force originally intended to award five to seven nationwide awards. The significance of this acquisition plan is clear. Had the Air Force continued with its plan, it is unlikely that any small businesses would have been able to successfully compete for the remediation work. The SBA interjected prior to the Air Force’s advertisement of its requirements and protested the nationwide procure-

298. *Id.*
299. *Id.*
300. *Id.*
301. Teaming arrangements with only small business participants are often referred to as Pooling arrangements. Pooling arrangements by various small businesses that join together to compete on a set-aside or unrestricted basis have the benefit of maintaining their small business status, despite the aggregate number of employees created as a result of the arrangement. See Mongé, *supra* note 292.
303. *Id.*
304. *Id.*
ment plan.\textsuperscript{305} The SBA recognized that bundling the large remediation requirements into large regional contracts would exclude small businesses from any meaningful participation. The SBA suggested, and the Air Force agreed, that awarding contracts on a base level, rather than on a nationwide level, made the contracts small enough for small businesses to effectively compete.\textsuperscript{306}

In the end, the mix of awards to teams headed by large and small businesses demonstrated the continued existence of competition in the federal procurement process and the great strides that small businesses have made in participating in nontraditional procurements. However, the Air Force did cite one drawback to the teaming arrangement system. Air Force officials stated that the arrangements made evaluating each firm tedious and time consuming.\textsuperscript{307} Despite the tedium, it is apparent that competition was received from firms of all sizes. The administrative complexities of evaluating teaming arrangements is dwarfed when compared to both the expanded base of potential sources providing remediation services and the lower prices received by the government because of greater competition.

C. TERC Subcontracts

The history of TERC contracts has been that large businesses have received all of the Corps' remediation awards.\textsuperscript{308} Even though DoD has small and small disadvantaged business goals, these firms rarely see a significant share of the TERC market.\textsuperscript{309} The Corps, recognizing the political ramifications associated with the de facto exclusion of small businesses from performing environmental remediation work under TERCs, concluded that the best way to include small businesses in this industry would be to evaluate a large business's proposal, considering as a significant factor, the amount of actual contract dollars being awarded to small and small disadvantaged businesses performing remediation work as subcontractors.\textsuperscript{310}

During source selection, the Corps includes the use of small businesses as a significant factor in four areas of a large business's propo-

\begin{itemize}
  \item \textsuperscript{305} Id.
  \item \textsuperscript{306} Id.
  \item \textsuperscript{307} Powers, supra note 297.
  \item \textsuperscript{308} Interview with Bert Milliken, Office of the Principal Assistant Responsible for Contracting, Headquarters U.S. Army Corps of Engineers (Aug. 24, 1995) [hereinafter Milliken Interview].
  \item \textsuperscript{309} Id.
  \item \textsuperscript{310} Id.
\end{itemize}
Although it is not appropriate to inform offerors of the weights given to evaluation factors, the Corps has stated that a score of not less than ten percent and not more than fifteen percent can be received by an offeror that proposes significant small business subcontractor involvement.\footnote{312}

In the first four TERC solicitations, large contractors did not take the small business subcontractor involvement factor very seriously.\footnote{313} According to the Corps, the result of the ambivalence of large contractors in taking this evaluation factor seriously was disappointment in not receiving an award.\footnote{314} For example, in response to the first TERC solicitation, nineteen offerors submitted proposals.\footnote{315} Of those, only six offerors were included in the competitive range.\footnote{316} In debriefings, unsuccessful offerors found that because they did not have meaningful subcontracting plans, they lost valuable points when evaluated on the utilization of small businesses as subcontractors.\footnote{317}

The Corps believes that the multi-year feature of the TERC contract provides for meaningful small business participation as subcontractors because large remediation contractors are more willing to take on small or small disadvantaged businesses and train them in performance of remediation work.\footnote{318} If TERC contracts did not have this multi-year feature, contract officials are positive that small and small disadvantaged businesses would be completely shut out of the remediation industry.\footnote{319}

The subcontracting goals that the Corps places in its TERC contracts are forty percent of subcontracting dollars to small businesses and eight percent for small disadvantaged businesses.\footnote{320} The eight percent goal is included in the forty percent small business goal.\footnote{321} Initially, the Corps believed that these goals were quite high, since it had never been able to achieve these goals in other procurements.\footnote{322} However, under TERCs, the Corps has seen large remediation con-
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Tractors submit proposals with subcontracting goals of approximately sixty percent of contract dollars to small businesses, and ten to fifteen percent of the contract dollars going to small disadvantaged businesses.323

According to the Corps, small businesses have a distinct advantage over large businesses in the TERC arena as subcontractors.324 Small businesses tend to be more attractive to large remediation prime contractors because a small business’s overhead costs are often much lower than that of a large business.325 The benefit to the large remediation prime is that when cost reasonableness or realism is evaluated, use of small businesses as subcontractors will invariably reduce the entire cost of the prime’s proposal.326 In fact, the Corps has found that if a large remediation contractor does not use small businesses as subcontractors, they will find it extremely difficult to win a large remediation contract.327

After deciding to evaluate a prime’s subcontracting plan, the Corps found that the market to hire small and small disadvantaged businesses to perform remediation work became extremely competitive.328 Large prime remediation contractors became very innovative in how they decided to incorporate small and small disadvantaged businesses in the environmental remediation services industry.329 For instance, large businesses have subcontracted with historically black colleges or minority institutions to perform laboratory work.330 In addition, large businesses have sought out various small and small disadvantaged businesses prior to issuance of any solicitation for remediation work and have teamed with them early to prepare them for future competition.331

The Corps has found that small and small disadvantaged businesses have succeeded as TERC subcontractors.332 In order to continue this track record, the Corps has decided to evaluate large prime

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323. Id.
324. Id.
325. Id.
326. Id. Small businesses have lower overhead because they do not have laboratories, large corporate offices, or large payrolls. Therefore, a small business’s composite or indirect overhead rate is in the neighborhood of $30 per hour as compared to a large business with a burden rate of approximately $90 per hour.
327. See Milliken Interview, supra note 308.
328. Id.
329. Id.
330. Id.
331. Id.
332. See Milliken Interview, supra note 308.
remediation contractors on their previous subcontracting plans, and the level of involvement of the subcontractors on those prior contracts.\textsuperscript{333} The Corps believes that, by continuing to evaluate and score present subcontracting plans and also by beginning to score as a significant factor, the amount of contract dollars paid to small and small disadvantaged businesses for remediation work performed under previous TERC procurements, small business involvement in environmental remediation work will become more competitive and the federal government will continue to receive cost efficient, effective, and timely cleanup services.\textsuperscript{334}

V. IMPEDIMENTS TO SMALL BUSINESS INVOLVEMENT IN THE ENVIRONMENTAL CLEANUP MARKET

Simply stated, the absence of many small businesses in environmental remediation contracting is the result of the trend in the Department of Defense and other federal agencies to structure cleanup contracts to be fairly large, comprehensive remediation efforts.\textsuperscript{335} Accordingly, truly small businesses are being excluded from meaningful participation as prime contractors, and few are participating significantly as subcontractors in these types of procurements.\textsuperscript{336}

It is apparent that defense cleanup procurement offices are driving the definition of small business higher and higher by continuously writing mega, full service contracts out of the reach of many smaller companies.\textsuperscript{337} The Departments of Defense and Energy both rely on the argument that larger projects are more cost-effective and expeditious than a series of smaller contracts for the same work.\textsuperscript{338}

In addition to the government's propensity to write larger cleanup contracts, other factors contribute to the absence of small businesses in the environmental remediation services industry. Other factors which continue to hamper the success of small businesses in

\textsuperscript{333} Id. This form of evaluation is similar to the evaluation of a contractor's past performance.
\textsuperscript{334} Id.
\textsuperscript{335} See, 59 Fed. Reg. 47,236.
\textsuperscript{336} Id.
\textsuperscript{337} See SBA Hears Small Business Concerns, supra note 251.
\textsuperscript{338} Id. This view, in the long run, may be more detrimental to the federal government, because many contractors, large and small, have decided to reduce or eliminate their exposure to high-risk government contracts. These firms believe that they are being forced to "bet the company" when they bid on major clean up projects, because such contracts present risks of catastrophic uninsured environmental liabilities. See John F. Seymour, Liability of Government Contractors for Environmental Damage, 21 PUB. CONT. L.J. 491 (1992).
their attempts to do business with the government include: limited access to government indemnification; perceptions that small businesses possess limited skill levels to perform cleanup; restricted access to surety bonds; limited access to capital; and competition from medium and large firms for subcontracts.

A. Lack of Adequate Government Indemnification

Due to the swift realization that providing environmental remediation services to the federal government may result in a certain level of financial risk, contractors have lobbied the government for adequate indemnification agreements. Government indemnification agreements could be subject to fines and penalties [for violating federal, state, or local environmental laws]. A contractor could also be subject to federal or state orders compelling cleanup of property contaminated during the course of work. Third, a contractor could be held liable for the costs of remediating sites to which hazardous substances generated by the contractor are transported for treatment, storage, or disposal. Fourth, a contractor could be sued by third parties under a variety of traditional tort theories, including: strict liability, trespass, nuisance, and negligence for personal injury or property damage. Finally, a contractor could be sued by the agency for breach of contract, or find various costs disallowed, because of environmental harm caused or aggravated during the work.

339. Id. A contractor could be subject to fines and penalties [for violating federal, state, or local environmental laws]. A contractor could also be subject to federal or state orders compelling cleanup of property... contaminated during the course of work. Third, a contractor could be held liable for the costs of remediating sites to which hazardous substances generated by the contractor are transported for treatment, storage, or disposal. Fourth, a contractor could be sued by third parties under a variety of traditional tort theories, including: strict liability, trespass, nuisance, and negligence for personal injury or property damage. Finally, a contractor could be sued by the agency for breach of contract, or find various costs disallowed, because of environmental harm caused or aggravated during the work.

tion provisions and laws are found in the FAR,\textsuperscript{341} the CERCLA,\textsuperscript{342} and in Pub. L. No. 85-804.\textsuperscript{343}

\textsuperscript{341} FAR, 48 C.F.R. pt. 52.228-7, Insurance Liability to Third Persons, states in pertinent part:

\textit{(c)} . . . the Contractor shall be reimbursed—

\textit{\textsuperscript{(c)(2)}} for certain liabilities (and expenses incidental to such liabilities) to third persons not compensated by insurance or otherwise without regard to and as an exception to the limitation of cost or the limitation of funds clause of this contract. These liabilities must arise out of the performance of this contract, whether or not caused by the negligence of the Contractor or of the Contractor's agents, servants, or employees, and must be represented by final judgments or settlements approved in writing by the Government. These liabilities are for—

(i) Losses of or damage to property (other than property owned, occupied, or used by the Contractor, rented to the Contractor, or in the care, custody, or control of the Contractor); or

(ii) Death or bodily injury.

\textit{(d)} The Government's liability under paragraph \textit{(c)} of this clause is subject to the availability of appropriated funds at the time a contingency occurs. Nothing in this contract shall be construed as implying that Congress will, at a later date, appropriate funds sufficient to meet deficiencies.

\textit{(e)} The Contractor shall not be reimbursed for liabilities (and expenses incidental to such liabilities)—

(1) For which the Contractor is otherwise responsible under the express terms of any clause specified in the Schedule or elsewhere in the contract;

(2) For which the Contractor has failed to insure or to maintain insurance as required by the Contracting Officer; or

(3) That result from willful misconduct or lack of good faith on the part of any of the Contractor's directors, officers, managers, superintendents, or other representatives who have supervision or direction of—

(i) All or substantially all of the Contractor's business.

\textsuperscript{342} Section 119 of CERCLA, codified at 42 U.S.C. § 9619, provides:

\textit{(a)(1)} . . . a response action Contractor with respect to any release or threatened release of a hazardous substance or pollutant or contaminant from a vessel or facility shall not be liable under any other Federal law to any person for injuries, costs, damages, expenses, or other liability, (including but not limited to claims for indemnification or contribution and claims by third parties for death, personal injury, illness or loss of or damage to property or economic loss) which results from such release or threatened release. . . .

\textit{(c)(1)} The President may agree to hold harmless and indemnify any response action Contractor meeting the requirements of this subsection against liability (including the expenses of litigation or settlement) for negligence arising out of the Contractor's performance in carrying out response action activities under this title, unless such liability was caused by conduct of the Contractor which was grossly negligent or which constituted intentional misconduct.

\textsuperscript{343} Public Law 85-804, 72 Stat. 972 (1958), provides, in pertinent part:

the President may authorize any department or agency of the Government which exercises functions in connection with the national defense, acting in accordance with regulations prescribed by the President for the protection of the Government, to enter into contracts or into amendments or modifications of contracts heretofore or hereafter made and to make advance payments thereon, without regard to other provisions of law relating to the making, performance, amendment, or modification of contracts, whenever he deems that such action would facilitate the national defense.
1. Third Party Liability and Indemnification

The indemnification provision of the FAR may be included in government contracts. According to the FAR provision, the government will indemnify a government contractor for property liability, death, or bodily injury, so long as the contractor remains in compliance with insurance requirements, and has not acted in a grossly negligent manner. Several restrictions, however, are imposed on the use of the FAR indemnification provision. Namely, the government only can assume liability to the extent that funds have been appropriated and are available, and the government limits the use of the indemnification provision to liabilities not compensated by insurance. Although FAR § 52.228-7, Insurance Liability to Third Persons, provides, in certain circumstances, indemnification to the prime contractor for liabilities arising out of the performance of the contract, this limited form of insurance has no significant impact on the risks borne by contractors, large or small, contemplating performance of environmental remediation services because of the varied restrictions incident to this contract clause.

2. Superfund Indemnification

Another type of indemnification, created expressly to address environmental risks associated with cleanup, is the response action contract authorized under CERCLA. Section 119 of CERCLA was enacted partly as a response to the contracting community's concerns that existing indemnity provisions were inadequate to ensure the availability of willing and capable response action contractors to participate in the environmental remediation and cleanup industry. Superfund indemnification provides limited, automatic rights to indemnification for response action contractors based upon an agency's authority to enter into indemnification agreements.
Superfund indemnification is, as a practical matter, applicable only to contracts between federal entities and the designated response action contractor performing pursuant to the prime contract. In addition, a federal agency's ability to indemnify a prime contractor is contingent upon three criteria: first, the contractor must demonstrate that it was unable to procure insurance, at a fair and reasonable price, in excess of the liability; second, the contractor must show that insurance to cover the liability was unavailable; and, finally, the contractor must demonstrate that it made diligent efforts to obtain insurance coverage from a non-federal source.

The indemnification component of Superfund insulates response action contractors from liability under CERCLA and any other federal law for any cost, damage, expense, or other liability arising from a release of hazardous substances, provided the contractor was not negligent, grossly negligent, and did not engage in intentional misconduct. The discretionary indemnification component of CERCLA permits federal entities to agree to hold harmless and indemnify any response action contractor against liability for negligence arising out of the contractor's performance in carrying out response activities under CERCLA, unless the liability was caused by conduct of the contractor that is grossly negligent or which constitutes intentional misconduct.

Despite the range of Superfund indemnification, it is not broad enough to protect contractors from state common law suits based upon the theory of strict liability in tort. Strict liability actions carry the lowest standard of proof, therefore, third party claimants may move successfully against a contractor performing environmental response and remediation. Absent indemnification, the costs associated with performing environmental remediation work will be prohibitive to small businesses, because they do not have the necessary resources to obtain adequate insurance protection. Special insurance programs or government indemnification agreements with reasonable sliding scale deductibles would provide an incentive for responsible small business contractors to compete for otherwise risk laden environmen-

350. Id.
351. Id.
352. Id.
353. Id.
354. Seymour, supra note 338, at 541.
355. Id.
356. Id.
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tal remediation work, while ensuring proper performance in accordance with contract requirements.357

3. Indemnification Under Public Law Number 85-804

The powers granted to the President by Public Law Number 85-804, the National Defense Contracts Act, allow him to offer financial or other forms of relief to government contractors, even if the government has no legal obligation to grant such relief or the proposed relief is prohibited by other statutes or by common law.358 The purpose of this authority is to allow the President to enter into agreements, inter alia, which would facilitate national defense and, in turn, provide protection to the government. This authority allows the President to extend protection to government contractors from financial harms not reimbursable otherwise under applicable FAR provisions or the Superfund.359 Congress specifically expressed its intent that 85-804 be used to facilitate the indemnification of defense contractors, but also cautioned that the authority to indemnify is an extraordinary remedy, not to be used when other adequate legal remedies exist.360

This presidential indemnification is extremely broad. In fact, it covers all claims and losses that are not caused by willful misconduct or lack of good faith on the part of the contractor's directors, officers, or principal officials.361 Despite its breadth, federal agencies remain reluctant to offer 85-804 indemnification. This trepidation stems from the lack of a clear and consistent definition of "unusually hazardous risk" that must be demonstrated in order to justify the use of 85-804 indemnification.362 Moreover, the requirement to seek approval of 85-804 indemnity at the Secretary level, if the agreement will commit the government to pay in excess of $50,000, often deters agency offi-

357. In fixed price contracts, where either no indemnification agreements are offered or reached, or minimal indemnification is granted, a bidder will offer a low price, regardless of the value of the indemnification and the agency will select the lowest bid. This approach favors large companies that can self-insure or very small firms that bid without indemnity, because they have no firm assets to lose. Id. at 543.
359. Id.
360. See Seymour, supra note 338, at 543.
361. Id.
cials and contractors from requesting this remedy. Clearly, small businesses would benefit greatly from federal agency use of Public Law Number 85-804, because these firms would not be required to "bet the company" to perform environmental remediation work. While 85-804 has been used sparingly, circumstances such as the immediate remediation of contaminated sites that present a threat to human health and the environment likely fall within the parameters of "unusually hazardous risks," thereby justifying its use to pay contractors, especially those that are small, for their cleanup efforts on behalf of the federal government.

B. Procurement Complexity; Insufficient Skill Level to Properly Perform Cleanup

The federal government perceives that it is difficult to involve small and small disadvantaged businesses in the cleanup contracting process as prime contractors because of the size and complexity of hazardous waste cleanup projects, necessary bonding and liability issues, health and safety training, and the level and extent of technical and other types of expertise required to perform the work. Accordingly, the federal government has placed its focus on using the subcontracting arena to ensure small and small disadvantaged business involvement in the cleanup field.

1. Contracting Officer's Responsibility Determinations can be an Obstacle for Small Businesses

The size and complexity of a procurement has a direct impact on whether a small business will be deemed responsible to perform agency requirements. Even more important, however, is the contracting officer's perception as to the responsibility of a small business to perform agency work. In the case of environmental remediation work, the majority of contracting officers maintain that small businesses are not capable of performing under large, complex cleanup contracts. For example, in Standard Testing and Engineering Company, the Air Force issued a solicitation, on a partial small business set-aside basis, for the acquisition of environmental support services

363. See Seymour, supra note 338.
364. Interview with Diane Sisson, Small and Disadvantaged Business Utilization Officer, Headquarters, U.S. Army Corps of Engineers (Aug. 24, 1995) [hereinafter Sisson Interview].
365. Id.
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at two of its major bases. The Air Force contemplated awarding four indefinite-delivery, indefinite-quantity contracts with a guaranteed minimum order of $1 million, but having a potential total value of $190 million.

Standard, a small business, attended the Air Force's pre-proposal conference, at which time, the agency made assurances that one of the four contracts would be reserved for small business. Accordingly, Standard submitted its proposal. Subsequently, the Air Force advised Standard that its surety did not indicate whether it would issue a one hundred percent bond, as required by the solicitation, that would cover at least one-quarter of the overall contract maximum of $190 million over five years. Standard informed the Air Force that its proposed surety would write bonds for up to $5 million per delivery order and for an aggregate amount of $8 million. After receiving Standard's explanation, the Air Force requested clarification regarding Standard's plan to provide additional bonding. Furthermore, the Air Force informed Standard that the solicitation would be amended to remove the set-aside.

The Comptroller General did not decide, on the merits, Standard's challenge to the Air Force's dissolution of the partial set-aside, because Standard failed to raise this ground for protest before the next closing date for receipt of proposals. The procedural decision in Standard left the agency's action of dissolving the set-aside unexplained. However, it is a fair assumption that the set-aside was dissolved once the Air Force concluded that a small business could not obtain one hundred percent bonding for one quarter of the potential total value of the contracts. The requirement for one hundred percent bonding for a contract, which could only potentially exceed the guaranteed $1 million order, created an inherent bias against Standard and other small businesses similarly situated, since the Air Force required bonding for approximately $47 million, not the actual amount of future delivery orders. Had Standard been able to secure one hundred percent bonding for the Air Force's project, it probably would not have been able to bid on any other contracts until the completion of the Air Force project. Since Standard could not meet the Air Force's

367. According to the FAR, a contractor is not required to obtain bonding for the total potential value of the contracts, rather, the amount of bonding required is that value which represents the amount of each delivery order. See infra text accompanying note 398.
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stringent bonding requirements, its offer was down scored by the contracting officer.368

The contracting officer’s negative perceptions about the capability of small businesses to perform remediation work can be detrimental because of the breadth of the contracting officer’s discretion.369 A contracting officer, in any federal procurement must make an affirmative determination of responsibility before awarding a contract.370 If a contracting officer determines that there is no clear indication that a prospective contractor is responsible, she is required to make a determination of nonresponsibility.371

Responsibility of a prospective contractor is determined by analyzing relevant information that is either obtained from the contractor or from other contracting activities.372 For instance, a responsibility determination is based upon the following: adequate financial resources to perform the contract,373 or the ability to obtain the resources;374 ability to comply with the required or proposed delivery or performance schedule, taking into consideration other business commitments;375 satisfactory record of past performance;376 satisfactory record of integrity and business ethics;377 adequate operational experience commensurate with the agency’s requirements;378 access to or possession of the necessary production, construction, and technical

368. Although the Air Force downscored Standard’s offer, the result was the de facto disqualification or rejection of Standard as nonresponsible, because Standard could not acquire a bonding commitment for one hundred percent of the value of the total contract. Standard had no chance of receiving award because the contracting officer concluded that Standard was not able to obtain the required bonding and, therefore, represented an unacceptable risk to the government. Despite the distinction between a firm’s ability to obtain bonding and a firm’s capability and willingness to perform environmental remediation work, decisions regarding the perceived inadequacy of proposed bonding by small businesses for environmental cleanup work continue to affect the responsibility determinations of small businesses.

369. See FAR, 48 C.F.R. pt. 9.103(b).
370. Id.
371. Id. Generally, a nonresponsibility determination only bars a prospective contractor from competing or receiving award in the subject procurement. That same contractor is not precluded from competing in other federal procurements. However, if a prospective contractor is repeatedly found nonresponsible, that contractor is de facto suspended or debarred.
374. A prospective contractor can satisfy the financial resources requirement by demonstrating that the contract will be performed by subcontracting. The contractor must provide acceptable evidence of a commitment or explicit arrangement, that will be in existence at the time of contract award, to rent, purchase, or otherwise acquire the needed facilities, equipment, or other resources, or personnel in order to be deemed responsible. See FAR, 48 C.F.R. pt. 9.104-3(b).
376. See FAR, 48 C.F.R. pt. 9.104-1(c).
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equipment and facilities required to satisfy the agency's requirements, and remain otherwise qualified and eligible to receive an award under applicable laws and regulations.

Although contracting officers have wide discretion to make responsibility determinations, small businesses have a recourse in the event they receive a nonresponsibility determination pursuant to an environmental remediation procurement. If a contracting officer determines that a small business is not responsible to perform remediation work, the contracting officer must make a referral to the SBA citing why the small business contractor was found nonresponsible. The small business is then given the opportunity to apply to the SBA for a Certificate of Competency (CoC). If the SBA issues a CoC to the small business, the referring agency is advised that the small business is deemed responsible by the SBA and the agency is encouraged to proceed with the procurement based upon that conclusion.

Most, if not all, contracting officers are in the business of assuring that agency requirements are performed quickly, properly, and cost effectively. As stated earlier, to achieve the goal of remediating contaminated sites and installations, contracting officers seek to employ those contracting tools that will result in expedient and cost efficient cleanup. However, federal agencies, particularly DoD and DoE, are relying, to a large extent, on the use of mega contracts to perform cleanup. The increased use of these mega contracts often requires nationwide performance. In many instances, the use of total package contracts contradicts the equally important federal goal of placing more contracting opportunities with small businesses. This socio-economic goal is important, because the federal government must ensure that its industrial base of environmental cleanup contractors is increased and that the amount of competition expands along with the growing cleanup market. The larger the remediation contract, the more difficult it becomes for truly small businesses to receive favorable responsibility determinations because of the inherent insti-

380. See FAR, 48 C.F.R. pt. 9.104-1(g).
382. A Certificate of Competency is a certificate issued by the Small Business Administration stating that the holder is responsible (with respect to all elements of responsibility, including but not limited to capability, competency, capacity, credit, integrity, perseverance, and tenacity) for the purpose of receiving and performing a specific government contract. See FAR, 48 C.F.R. pt. 19.601(a).
tutional bias that small businesses are incapable of garnering the requisite financial support, experience, and capital necessary to perform remediation work.\textsuperscript{384}

In this regard, it has been demonstrated, only as a result of SBA prodding, that nationwide procurements need not be used continuously to support cleanup, especially where work can be done regionally.\textsuperscript{385} If bundled remediation procurements are broken out into separate acquisitions, positive responsibility determinations by contracting officers would surely increase. Small businesses would be more capable, willing, and able to obtain the required capital and resources needed to perform cleanup work. More importantly, small businesses would be able to augment their past performance histories, thereby allowing contracting officers in future procurements to identify them as potential competitors for environmental remediation work.

2. Prime Contractor Selection of Subcontractor can Hinder Small Business Participation in Environmental Remediation Contracts

Another obstacle for small businesses seeking opportunities to develop experience in environmental remediation, is the inability to be chosen as subcontractors. For small businesses that are not enrolled in the SBA's 8(a) program, failure to be chosen as a subcontractor directly affects those businesses' viability and longevity. Large firms that are awarded remediation contracts will either use other large, established firms as subcontractors, and vice versa, or use smaller firms with which it has become professionally acquainted. Although this practice is common and practical, its result is to severely diminish opportunities for small, small disadvantaged, and women-owned businesses seeking remediation work. The federal government cannot be responsible for the private sector diminution in subcontracting opportunities. However, the federal government, in the interest of maintaining entrepreneurial spirit and a viable contractor base, has the responsibility of ensuring participation of all sized businesses in federal procurement.

Those firms which are 8(a) contractors or are small businesses providing work under federal contracts face similar obstacles. Federal

\textsuperscript{384} Sisson Interview, supra note 364.
\textsuperscript{385} Powers, supra note 297.
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agencies are concerned about meeting their small business participation goals. Since these goals are defined in the amount of contract dollars awarded per year, there is little or no emphasis placed on achieving these goals in each industry, especially in those industries with high skill or technical requirements. The result is that reaching the contract dollar goal becomes paramount to ensuring the growth and self-sufficiency of a significant portion of the small business community.

In addition, because goal accomplishment is measured by the award of contract and subcontract dollars to small businesses, the SBA is not encouraged to spread remediation opportunities around to all of its 8(a) program participants that may be capable of performing cleanup work. Instead, most contract dollars for this work will go to only a few 8(a) firms that are considered the cream of the program. In this regard, awards within targeted groups go to those businesses that are more likely to succeed, rather than to those businesses with potential, and a greater need for work.

Federal agencies also target those small businesses with which they have had prior dealings in the cleanup of sites or installations. Even though requirements are advertised and competition can come from any small business interested in performing remediation work, it cannot be ignored that statements of work and solicitations are specifically written around certain firms that have had previous experience in the type of remediation required by the agency. All of these biases demonstrate that mechanisms are required, and must be developed to allow small businesses to make inroads into the environmental remediation services industry.

C. Restricted Access to Surety Bonds

Federal law currently requires contractors to provide certain types of surety bonds on all federal construction contracts worth over $25,000. There are three types of surety bonds. The first is a

387. Id.
388. Sisson Interview, supra note 364.
390. Bonding is a three party agreement whereby the surety guarantees the owner or agency issuing a contract that the contractor or subcontractor will perform the contract. See FAR, 48 C.F.R. pt. 28.001.
391. The FASA increased this amount to $100,000, effective October 1, 1995.
bid bond.\textsuperscript{392} A bid bond ensures that the bidder will not withdraw its bid within the time period specified for acceptance and, if its bid is accepted, will enter into a written contract and will furnish any additional bonds required.\textsuperscript{393} The second is a performance bond.\textsuperscript{394} A performance bond ensures that if the contractor or subcontractor does not complete the work, the surety will either pay to complete it or pay up to one hundred percent of the penal amount of the contract.\textsuperscript{395} The third is a payment bond.\textsuperscript{396} A payment bond guarantees that subcontractors, suppliers, and employees will be paid for the work performed and/or materials provided under a contract.\textsuperscript{397}

In addition to the federal government, most state and local governments and some private sector lenders also require construction firms to be bonded.\textsuperscript{398} Because of the environmental remediation service work requires repairs and alterations to accomplish remedial actions, many of the firms performing the work are construction firms. Accordingly, the federal contracts that have remediation as a major function require the performing contractor to be bonded. In most instances, large prime contractors will also require their subcontractors to be bonded. Finding adequate bonding to qualify for environmental remediation work can be difficult and, in some cases, nearly impossible.

Surety companies, or the entities that issue surety bonds, decide whether firms have the necessary experience and financial capability to perform a job and, thus, to qualify for a bond.\textsuperscript{399} In approving bonds, surety companies seek to reduce their risk by examining, among other factors, a firm’s experience in construction, specializa-

\textsuperscript{392} See FAR, 48 C.F.R. pt. 28.101.
\textsuperscript{393} Id.
\textsuperscript{394} See FAR, 48 C.F.R. pt. 28.103-2.
\textsuperscript{395} Id. Performance bonds are required for firm, fixed price construction contracts and delivery orders, but are discretionary for cost reimbursement contracts. The percentage needed for performance bonds is flexible. See FAR, 48 C.F.R. pts. 28.102-2(a) and 28.103. The level of bonding is determined by the contracting officer, based on the level of risk associated with the project and the resulting need to protect the government's interests. Id.; see also U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources, Hazardous and Toxic Waste (HTW) Contracting Problems: A Study of the Contracting Problems Related to Surety Bonding in the HTW Cleanup Program, IWR Rep. No. 90-R-1 (July 1990) [hereinafter HTW Surety Bonding Study].
\textsuperscript{396} See FAR, 48 C.F.R. pt. 28.103-2.
\textsuperscript{397} Id.
\textsuperscript{399} Id.
tion and past record in performing the type of work requiring bonding, and financial viability. The decisions that bonding companies make regarding the issuance of bonds have been cited as a distinct impediment to the development of small firms, especially those owned by minorities and women.

Smaller construction firms have complained that the surety industry's requirements for a bond are too burdensome, the financial commitment required for a bond is too high, the costs required to prepare financial information for surety company review are exorbitant, and the fees charged by sureties make it less than profitable to perform bonded work. All of these factors combine together to do one thing—limit the number of small or small disadvantaged firms involved in the performance of federal work requiring bonding.

The surety industry has indicated that its reluctance to guarantee performance on remediation construction projects stems from the concern for possible long term liability exposure and changing state of the art design requirements associated with environmental cleanup. The unwillingness of sureties to bond smaller firms, otherwise capable of performing remediation, will drastically affect the environmental remediation services industry. Small firms will continue to be unable to perform remediation work because of the unavailability of bonding. Furthermore, small firms will be unwilling to compete for remediation work, because they know that they will not receive award of remediation contracts, so long as government requirements for bonding remain stringent.

If small and small disadvantaged firms do not receive bonding at reasonable prices, only a handful of firms will be available to compete for remediation work. For example, on a typical remediation pro-

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400. Id.
402. Id.
403. The surety industry continues to make performance bonds available to certain major firms competing for cleanup work. These firms either have substantial business with the surety, major financial assets, and/or a long history of past performance on remediation projects. See HTW Surety Bonding Study, supra note 395.
404. Surety companies have required that firms provide collateral as a condition for approving a bond. Surety companies view collateral as a tool that produces a strong commitment from the firm to successfully complete contract requirements. The collateral is normally a liquid asset that frequently comes from the contractor's personal assets, rather than from the firm's assets, so as not to reduce the firm's working capital. See Access to Surety Bonds, supra note 398.
The many requests for plans and specifications indicate that more than a few firms are interested in remediation work. In addition, many of the firms request the plans and specifications in order to keep up with the remediation market, even if they are unable to submit an offer for the requested solicitation. This interest demonstrates that firms, including small businesses, stand ready to perform remediation work, if changes in the method of procuring these services are made and if impediments to the environmental cleanup market are either reduced or removed such that small business participation in this area would become feasible.

The consequence of the unavailability of bonding for small businesses and the stringent government bonding requirement is the reduction in the number of competitive bids received for federal remediation projects. This lack of competition will be detrimental to the federal government, because it will have fewer sources from which to find contractors capable of meeting remediation requirements. Furthermore, the federal government will not receive the price benefits that inure as a result of increased competition, or it may experience project delays due to the shortage of contractors and subcontractors who can obtain bonding. Ultimately, a reduced level of competition will result in a higher price paid by the government for environmental remediation services.

Contractors, large and small, perceive that the problems in contracting for environmental remediation work, to a large extent, are due to the government’s use of contracting procedures initially developed for non-environmental construction and service contracting. The federal government’s construction acquisition process does not account for the increased possibility of liability in excess of traditional construction projects. Thus, sureties, when examining the risks associated with an environmental remediation project, often perceive the possibility of greater liability on these contracts, thereby resulting in a decision to deny bonding or place significant monetary limits on the amount of bonding. For example, a phenomenon with multi-

405. See HTW Surety Bonding Study, supra note 395.
406. Id.
408. Most federal construction work is accomplished with fixed price contracts, therefore, the federal government does not normally have to account for contingencies. See supra Part I.C.
409. See HTW Surety Bonding Study, supra note 395.
discipline environmental remediation contracts, like TERCs and ERMCs, is a surety's assessment of bonding limits based on the entire value of a total package contract rather than on each delivery order written against an indefinite-delivery contract. So long as sureties continue to use the total potential contract price to compute bond capacity limitations, no small or small disadvantaged firm will be able to qualify for the bonding required by the federal government, because the price for such bonding, by far, will exceed the financial equity of the small firm.

D. Undercapitalization of Small Businesses

In order for any business, large or small, to operate profitably, it must have a strong capital base. Nowhere is this more true than in the environmental remediation services industry. As the regulatory noose tightens on environmental cleanups, the environmental remediation market has had to move from drawn out studies to fast paced remediation.\(^{410}\)

Capital expenditures for the study of environmental contamination are dwarfed by the cost of the studies that are necessary for the actual remediation of a site, even though more funds eventually will be expended on the study of a site than its cleanup.\(^{411}\) Despite this phenomenon, market predictors indicate that remediation is the fastest growing segment of the environmental market in the 1990s.\(^{412}\) As the market shifts to construction to tackle remediation, it has shifted also from private sector spending on small scale cleanup contracts to large, complex public sector projects.\(^{413}\) The twists and turns of the environmental market make it necessary for small firms to find capital to either compete for environmental remediation work as primes or subcontractors, or to attract scientific or engineering firms interested in expanding or maintaining their market share in the environmental remediation services industry.

The Small Business Investment Act of 1958 created a program to help small businesses obtain financing for starting, maintaining, and

\(^{410}\) See TERC ACQUISITION PLAN, supra note 12.

\(^{411}\) Of the bulk of the $9 billion environmental consulting market, $5 billion is spent on hazardous waste studies and remedial design. Another $3 billion is spent on water and wastewater treatment, and $600 million is spent on project engineering, while $400 million is spent on project compliance. Powers & Rubin, supra note 68, at 48.

\(^{412}\) Id.

\(^{413}\) Id.
expanding operations.\footnote{U.S. General Accounting Office, \textit{Small Business Administration: Inadequate Documentation of Eligibility of Businesses Receiving SSBIC Financing}, REP. To H.R., GAO Rep. No. RCED-94-182 (Apr. 1994).} Under the program, small business investment companies (SBICs) provide financing to small businesses through equity investments and debt.\footnote{Id.} In 1972, Congress amended the Act to establish a new class of specialized SBICs (SSBICs).\footnote{Id.} Using their own funds as well as government funds provided through the SBA, SSBICs provide financing to small businesses that are owned by persons who are socially and economically disadvantaged.\footnote{Id.}

The SBA administers the SBIC and the SSBIC programs, licenses the investment companies, and maintains a regulatory oversight function.\footnote{Id.} Under SBA administration, this program has not complied with SBA guidance on documenting the eligibility of the small businesses that receive financing.\footnote{Id.} This failure to properly document the eligibility of a small business that received financing may have the effect of thwarting the purpose of the program—to provide capital to small and small disadvantaged businesses. If small businesses are unable to receive special financing, these firms may find it impossible to compete in the environmental remediation services industry.

A number of initiatives are presently underway, or are being considered, to address the capital needs of small and medium sized businesses. The SBA guaranteed loan program is expanding rapidly.\footnote{Id.} Congress is considering additional proposals to create programs that will help businesses obtain financing.\footnote{Id.} In addition, various states have established loan or venture capital funds to assist local businesses.\footnote{Id.}

E. Competition from Large Environmental Remediation Businesses

The Hazardous Waste Action Coalition (HWAC), an association of over 110 leading engineering and scientific firms practicing in hazardous waste management, has observed that federal environmental
remediation contracts primarily have been awarded to large businesses.423 HWAC has maintained the position that firms of all sizes should be given the opportunity to participate in remediation activities, especially when these remediation activities are available as a result of government action.424

Critics of significant small business participation in the environmental remediation services industry invariably posit that, because of the complexity of the federal government's cleanup requirements, contracts for these requirements are ill suited for performance by small firms.425 However, HWAC has found that large, complex federal contracts often preclude the federal government from obtaining the hazardous waste expertise that exists within small, small disadvantaged, women-owned, and moderate sized businesses.426 In fact, HWAC believes that by tapping the expertise developed within small firms and using these firms as prime contractors on significant remediation projects, the federal government will benefit by way of increased competition in the industry.427

Although small firms have typically been the segment of the business population that has grown steadily, while employing almost fifty-four percent of the work force, these same firms have not been as successful in expanding their businesses to include federal contracts.428 The Departments of Defense and Energy have provided more environmental contracting opportunities in this decade than in their combined previous histories.429 However, small business awards from DoD during FY94, accounted for twenty-two percent of all awarded contracts, which totaled $132.2 billion.430 Accordingly, in an industry that is ninety percent dominated by large businesses, the proportion of environmental remediation contracts awarded to small businesses continues to shrink, even as the industry grows larger.

Small and medium sized firms have great difficulty in obtaining federal environmental remediation contracts.431 In many instances, small firms have been used to provide non-technical services that have

424. Id.
425. Id.
426. Id.
427. Id.
429. Id.
430. Id.
431. Id.
little or no relationship to cleanup or remediation at hazardous waste sites.\textsuperscript{432} For example, the non-technical work includes providing security guards or building fences at hazardous waste sites or military installations.\textsuperscript{433}

In as much as small business utilization goals are being achieved, barriers to small business participation in certain areas of federal procurement have remained. However, the reality is that large firms and the federal government are reporting increased participation by small businesses in environmental remediation when, in fact, these small businesses are neither given the opportunity to display their expertise in providing environmental remediation services, nor are they provided the chance to hone their experience in this industry. The misleading statistic that socio-economic goals are being met does not take into account the record exclusion of small businesses from the environmental remediation services industry. Continued exclusion from this industry will be detrimental to small businesses, but more importantly, the federal government, the entity that will rely, in later years, on more small firms to provide environmental remediation services at fair prices.

VI. RECOMMENDATIONS TO PROMOTE MEANINGFUL SMALL BUSINESS PARTICIPATION IN ENVIRONMENTAL REMEDIATION CONTRACTING

To achieve the successful promotion of small businesses as viable participants in the environmental remediation market, several policy decisions must be integrated and then implemented. No one avenue of approach to involving small businesses in remediation will be successful. Rather, agencies will have to rethink their cleanup strategies, the SBA will have to reconsider its position on size standards, and industry leaders will have to be forward thinking in their approach to developing small firm capabilities in the environmental remediation sector.

The significance in having all of these avenues converge at one point is apparent. Environmental remediation of contaminated sites will continue to be one of this nation's most important tasks. Environmental remediation not only affects the economic structure of this na-

\textsuperscript{432} Id.
\textsuperscript{433} Corrigan, \textit{supra} note 407.
tion, it also affects this nation's security. In addition, international opportunities in environmental remediation have surfaced. Therefore, the nation will require a strong knowledge base to sustain remediation efforts at home, while lucrative remediation work draws larger remediation firms abroad.

Small businesses must stand ready to provide environmental remediation services when larger firms leave to harness greater environmental cleanup opportunities in other countries. In order to support the development of small businesses in this industry, steps must be taken now by the proper agencies and officials to ensure that small businesses obtain experience and opportunities so as to grow with the environmental remediation services industry.

A. Reevaluate Size Standard for Environmental Remediation Services

In establishing the 500 employee size standard for environmental remediation services, the SBA departed from its traditional approach to determine size in a service/construction industry by the amount of annual receipts. The SBA has pronounced that the size standard also will apply to federal environmental remediation procurements that involve three or more environmentally related activities which, in turn, can be identified in separate industries under the SIC system. The 500 employee size standard is, in effect, an increase above the size standard of $18 million proposed earlier. The SBA contends that the higher size standard is supported by more recent data describing the industry structure for environmental remediation activity.

The SBA has established the current size standard of 500 employees for federal government procurements meeting the following two criteria: (1) that the overall purpose of the procurement is to restore a contaminated environment, and (2) that the procurement is composed of activities in three or more distinct industries identified with separate SIC four digit industry codes, none of which constitute fifty percent or more of the contract's value. These criteria were established to distinguish environmental remediation services from

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438. Id.; see also 13 C.F.R. pt. 121.601.
other environmentally related procurements involving services primarily associated with one particular industry.\textsuperscript{439}

In essence, the result of the 500 employee size standard and the establishment of the criteria that define environmental remediation is to provide more government contract opportunities to those firms capable of and able to sustain an expertise and a practice in three or more environmentally related areas. This rule results in the wholesale exclusion of smaller businesses, SDBs, and women-owned businesses from the environmental remediation industry as prime contractors, because these firms, for the most part, do not possess multi-discipline capabilities.

The environmental remediation service activity was designated as a sub-category under SIC code 8744, Facilities Support Management Services, because this SIC code has been defined to require the performance of a range of different environmental remediation services in support of facilities where no one activity may be considered the primary function in the cleanup of a contaminated site. According to the SBA, the reason the above criteria and size standards were developed and modified, respectively, was because of the trend in DoD and other federal agencies to structure cleanup contracts to be large, comprehensive remediation mechanisms.\textsuperscript{440} In particular, SBA officials said the size standard was raised, because the SBA found that small businesses were not competing for the prime contractor position on mega remediation contracts, mainly due to competition from larger businesses with greater resources.\textsuperscript{441} SBA officials noted that, in order to make remediation contracts available to small businesses, the SBA would have to either break down the mega contracts into smaller components, or upwardly adjust its definition of what constitutes a small business for purposes of environmental remediation.\textsuperscript{442}

The SBA stated that it chose to implement both options.\textsuperscript{443} With regard to breaking down bundled contracts, the SBA positioned break-out specialists across the nation.\textsuperscript{444} These specialists have the responsibility of reviewing all major government contracts to determine whether the contracts can be subdivided into smaller contracts,

\textsuperscript{439} See 59 Fed. Reg. 47,236, 47,237.
\textsuperscript{440} Id.
\textsuperscript{441} Id.
\textsuperscript{442} Id.
\textsuperscript{443} Id.
\textsuperscript{444} See 59 Fed. Reg. 47,236, 47,237.
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which would then be awarded to small businesses. The SBA maintains that it has no plans to make any other modifications to the 500 employee size standard, due to the validity of the federal government’s position that single, full service contracts allow for better government oversight and expeditious cleanups.

The SBA must consider reevaluating the size standard for environmental remediation work. Without question, small businesses are validly concerned that a 500 employee firm is truly not a small business. Therefore, competing against these firms would be fruitless. In fact, the new size standards have opened the door for an estimated 1,100 companies to compete for environmental remediation contracts that had been previously determined to be too big to qualify as small businesses under existing categories for environmental cleanup work. In addition, the increase of the size standard throughout the environmental remediation services industry also increases the competition small businesses must face for remediation work that is not covered by a full service or mega contracting tool.

The SBA supports its final rule of 500 employees by stating that prime contractors will find it easier to achieve their small business subcontracting goals because of the new size standards. The SBA presumes that this will provide greater subcontracting opportunities for small businesses. While some new opportunities will present themselves to truly small businesses; overall, the result of the increased size standard is the funneling of more opportunities to larger firms. In fact, the SBA’s failure to measure subcontractor employees against employee based standards will allow newly established 500 employee small businesses to subcontract work to even larger businesses. In the end, small businesses will not be able to gain the level of experience and expertise required to successfully compete for prime contractor opportunities in the field of environmental cleanup.

445. Id.
446. Id.
448. Id.
449. Id. These goals will be easier to achieve, because SBA counts subcontractor revenues against a revenue based standard, but it does not count subcontractor employees against employee based standards.
B. Reduction in Award of Federal “Mega” Environmental Remediation Contracts

The Small Business Administration’s new size standard for environmental remediation has made it tougher for truly small businesses to garner the prime contractor role in government cleanup contracts. In addition, the federal government’s affinity for awarding mega contracts renders the likelihood of a small business winning one of these contracts a virtual impossibility. As discussed earlier, DoD and other federal agencies have a propensity to bundle environmental remediation requirements. This propensity results in fewer contract opportunities for small businesses and less overall competition received on government procurements. Much to the dissatisfaction of small businesses, this trend is not subsiding. Despite the arguments supporting the use of mega contracts, bundling of remediation services impedes competition. While full service remediation contracts may be necessary for complex cleanup sites, many other sites do not require TERC-like coverage in order to effect a proper, timely, and efficient cleanup. Accordingly, the SBA cannot acquiesce to agency determinations that bundled requirements are the only alternative to complete remediation work. Rather, the SBA must be proactive in its efforts to sustain small business growth and survival in the remediation industry, so as to foster continued competition and reduce the trend of restricting competition to only large businesses in this industry. TERC-like contracts should be used sparingly, especially when it is determined that remediation work can be performed in smaller components to accommodate the maxim upon which federal procurement is based—full and open competition.

1. Award Smaller Environmental Remediation Contracts

Clearly, federal procurement officials play the most significant role in ensuring the existence of opportunities for small businesses. These officials are responsible for acquiring the agency’s minimum needs by using appropriate contracting tools and methods. It is the procurement official that is responsible for determining whether the agency’s requirements should be bundled into a single, full service or mega contract.

Currently, agencies are finding that the use of mega contracts provide for administrative ease and oversight in the cleanup process.

However, the cost associated with awarding larger contracts is the diminution of small business participation in environmental contracting. Equally important, however, is the lack of competition that the federal government will receive in this industry because of the diminution in small business participation.

In the effort to reinvent government, the current political administration seeks to run the government like private business. As it so happens, some small firms are major players in private cleanup contracts. For example, an accepted practice in the private sector is to use smaller firms to help plan and define projects, including remedial investigation and feasibility studies and the remedial design phases of a project. Then, the remedial action, or construction phase of the cleanup, is conducted by a larger construction-based firm, with oversight and independent monitoring conducted by small firms. As stated above, federal contracts relegate small firms to performance of just one small portion of the overall cleanup activity, thereby excluding small firms from project planning and monitoring.

If the federal government placed its focus on awarding small contracts, it would be able to take advantage of the small firm’s technical capability, rather than wasting small firm potential with non-technical activities purchased to fulfill agency small business goals. Furthermore, with smaller contracts, agencies would be better able to monitor contractor performance, because smaller contracts would allow the government to better identify the requirements at each contaminated site. Moreover, smaller contracts, with better defined statements of work, would generate wide interest among small firms, because these firms would be attracted to the actual opportunity to compete successfully for environmental remediation work. While this recommendation may not be attractive from the standpoint of the government, considering agency reliance on mega remediation contracts, the above reasoning should be revisited continuously, in order to benchmark whether the legal requirement for full and open competition is being adhered to in the environmental remediation services industry.

452. Id.
453. Id.
2. Award Geographically Limited Contracts

Another way for the federal government to move away from the mega contracts covering large areas is to implement site-specific or geographically limited contracts. By awarding more site specific contracts, the federal government would be able to obtain the specific services needed for particular jobs from the best firms. Many times, the best firms are small businesses that perform some type of environmental remediation in the location of the contaminated site.\textsuperscript{454}

Smaller firms prove to be better able to respond to such targeted, geographically limited contracts and have demonstrated the ability to successfully compete against larger firms when the actual contracts have been trimmed down.\textsuperscript{455} For example, Environmental Science Pacific, Inc. (ESP), a minority-owned local business based in Hawaii, was awarded a $20 million, five year, Air Force contract to perform removal of underground storage tanks and to provide soil and water remediation currently at Hickam and Wake Island bases in Hawaii. ESP's knowledge of the region\textsuperscript{456} and remediation experience in that area allowed it to team with a large consultant and win award of the contract.\textsuperscript{457}

As is true in many regions, larger firms performing under nationwide contracts will not have the expertise and regional knowledge regarding environmental remediation that smaller firms have been able to obtain as a result of performing in those particular areas. It is this dynamic that should make smaller firms more attractive to federal agencies that have identified contaminated sites in specific regions of the country with unique cleanup needs.

Congress has recognized that awarding contracts to, or at least seeking out, small businesses engaged in remediation in a particular region may be in the best interest of the government.\textsuperscript{458} Specifically, DoD is required by the National Defense Authorization Act of 1994, when entering into contracts for environmental services at sites sub-

\textsuperscript{454} Id.
\textsuperscript{455} Id.
\textsuperscript{456} ESP began performing environmental, health, and safety work in Hawaii in 1989. It started out by working on landfills for the County of Maui, as well as hazardous material and hazardous waste work with the military. As time passed, the company moved into more technical work. The company develops its expertise as work comes in and training takes place while performing remediation work. See Jay McWilliams, \textit{Minority Contractor Gets $20 Million Job}, \textit{Pac. Bus. News}, July 25, 1994, at 27.
\textsuperscript{457} Id.
ject to base closure or realignment, to give preference, to the greatest extent practicable, to qualified businesses located in the vicinity of the installation and to small and small disadvantaged businesses.\textsuperscript{459} Congress noted that local businesses often provide added knowledge and insight regarding site conditions and characteristics of surrounding areas.\textsuperscript{460}

C. Agency-Wide Mandate to Implement Permanent Mentor-Protégé Program

As is evident from the previous discussion, any small business seeking an opportunity to provide environmental remediation services to the federal government must possess technical expertise and experience. DoD, by permanently implementing a pilot mentor-protégé program, recognized the need to train more small and small disadvantaged businesses in highly complex industries, like environmental remediation. By mandating this program throughout the federal government, small businesses could develop remediation skills which can be used on successive, larger contracts. In addition, the federal government will benefit from increasing the knowledge base in these skill intensive fields.

Mentor-protégé programs require only a small commitment on behalf of the federal government, because large industry leaders take on much of the responsibility of providing assistance to small firms. Therefore, the program does not overburden the government either with administrative costs or attention. Ultimately, the benefits to the government are three-fold. The government will receive increased competition from more sources in the future, increased competition in the environmental remediation arena will drive down costs to the government, while promoting local economic growth in the areas where more small businesses are performing cleanup work, and the government will benefit as a result of a cleaner environment.

VII. CONCLUSION

Shutting small firms out of the environmental remediation services industry, by increasing business size standards and writing mega cleanup contracts, is a risky practice for a government whose procure-
ment practices are founded upon competition. While larger cleanup contracts seem appealing, the federal government is gambling with its limited industrial base of contractors that are capable and willing to perform cleanup work.

The federal government must consider its resources before limiting the prime contractor role to large businesses. If the industrial base of cleanup contractors consists of only large businesses, the federal government risks paying a premium for cleanup services. In addition, the government may not be able to timely respond to environmental cleanup requirements if the majority of its contractors are performing under already existent mega contracts.

Small businesses must also lobby for recognition in the environmental cleanup industry. Small businesses must take affirmative steps to involve themselves in issues pertaining to environmental contracting, for example, the SBA’s size standard determinations for this industry. First, small businesses must educate themselves about the laws and regulations pertaining to their existence. Small businesses should then determine how these laws and regulations operate within the context of environmental cleanup contracting.

Second, small businesses should seek teaming or joint venture arrangements to develop skills in the remediation industry. With a strong skill base in environmental cleanup, teams of small business contractors will appear attractive to large remediation contractors and the federal government. Third, small businesses must seek out capital investors to help finance the risks associated with environmental contracting. If small businesses succeed in regional performance of cleanup contracting, the community benefitting from the service may be a future source of financial support for the small business cleanup contractor. Finally, small businesses must become involved with trade associations that are in the business of lobbying Congress and other

461. Had the maximum practicable competition standard, passed by the House and reported in H.R. 1670, been enacted as part of FASA, the federal government would only have had to provide open access to competition, but only to the extent that full and open competition would be consistent with the need to fulfill agency requirements. See 64 FED. CORR. REP. 317 (Oct. 16, 1995). The maximum practicable competition standard is lower than the CICA requirement for full and open competition, therefore, an agency would have been in a position, under the former standard, to further restrict competition to those sources that the agency determined would be competitive under a particular procurement. Applying the maximum practicable competition standard to TERC-like contracts, an agency could better justify a decision not to allow small businesses to compete for mega remediation contracts by stating that the agency need for efficient multi-discipline remediation work could only be satisfied by large business contractors with multi-discipline resources.
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legislative bodies for changes to laws and regulations that impact the small business cleanup contractor.