

REMOVAL COST MANAGEMENT MANUAL

OSWER Directive 9360.0-02B

April 1988

**U.S. Environmental Protection Agency
Office of Emergency and Remedial Response
Washington, DC 20460**

The information in this document has been funded, wholly or in part, by the United States Environmental Protection Agency under Contract No. 68-01-7367 to the Roy F. Weston, Inc. Headquarters Technical Assistance Team (TAT). It has been subject to the Agency's peer and administrative review and has been approved for publication as an EPA document.

PREFACE

This manual is designed to provide comprehensive cost management procedures for use by the Environmental Protection Agency (EPA) at removal actions authorized under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund). Specifically, this document should be used by the On-Scene Coordinator (OSC) and other on-site personnel designated by the OSC when performing cost management activities at a Superfund removal site.

The policies and procedures established in this document are intended solely for the guidance of government personnel. They are not intended, and cannot be relied upon, to create any rights, substantive or procedural, enforceable by any party in litigation with the United States. The Agency reserves the right to act at variance with these policies and procedures and to change them at any time without public notice.

This manual supersedes cost control procedures detailed in the January 1985 Removal Cost Management Manual. The guidelines and procedures presented herein reflect CERCLA policy and guidelines under the:

- o Delegations 14-1-A, 14-1-B, and 14-2 or delegation of removal authority to Regional Administrators, February 1987; and
- o National Hazardous Substances Pollution Contingency Plan (NCP), November 1985;
- o Superfund Removal Procedures - Revision #3, 1987;
- o ERCS Contract Users' Manual, October 1987.

Supplemental information can be found in these documents and in those on the List of References at the end of this manual. Revisions of these documents may change policies and procedures outlined in this manual.

Questions, comments, and recommendations are welcomed regarding the Removal Cost Management Manual and should be forwarded to the EPA task monitor for cost management:

Ms. Karen Holtzman
Emergency Response Division (WH-548B)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

TABLE OF CONTENTS

| | |
|---|------|
| LIST OF EXHIBITS | vii |
| LIST OF ACRONYMS | ix |
| 1. INTRODUCTION | 1-1 |
| 1.1 Removal Cost Management | 1-1 |
| 1.2 Approach to Cost Management | 1-3 |
| 1.3 Changes in the Current Edition | 1-4 |
| 1.4 Using the Manual with RCMS | 1-5 |
| 2. COST PROJECTION | 2-1 |
| 2.1 Cost Projection and the Action Memo Project Ceiling | 2-1 |
| 2.1.1 The Project Ceiling | 2-2 |
| 2.1.2 Policy Regarding Investigatory and Enforcement Costs | 2-2 |
| 2.2 Projecting the Cost of a Removal | 2-3 |
| 2.2.1 Scoping the Project | 2-5 |
| 2.2.2 Projecting Costs | 2-10 |
| 2.3 Sources of Cost Information | 2-19 |
| 3. COST CONTROL | 3-1 |
| 3.1 General Cost Planning | 3-1 |
| 3.1.1 Identify Non-Commercial Support Services and Response Equipment Available to the Region | 3-2 |
| 3.1.2 Identify Cleanup Services Available to the Region | 3-3 |
| 3.1.3 Maintain Field Safety Cost Information | 3-4 |
| 3.2 Ongoing Cost Projection | 3-5 |
| 3.3 Cost Tracking | 3-6 |
| 3.4 Contractor Monitoring | 3-8 |
| 3.5 Verification of Cleanup Contractor Charges | 3-10 |
| 3.5.1 Verify Personnel Charges | 3-11 |
| 3.5.2 Verify Equipment Charges | 3-12 |
| 3.5.3 Verify Expendable Materials | 3-13 |
| 3.5.4 Verify Subcontractor Charges | 3-13 |
| 3.5.5 Sign EPA Form 1900-55 | 3-14 |
| 3.5.6 Certify Invoices | 3-14 |
| 4. COST RECOVERY | 4-1 |
| 4.1 Justify that Removal Actions are Consistent with the NCP | 4-1 |
| 4.2 Account for Costs Actually Incurred | 4-2 |
| 4.3 Ensure that Costs are Reasonable and Allowable to the Project | 4-2 |

TABLE OF CONTENTS

(Continued)

| | |
|--|-----|
| 5. COST DOCUMENTATION | 5-1 |
| 5.1 Information to be Documented | 5-1 |
| 5.1.1 Chronology of Events and Decisions | 5-2 |
| 5.1.2 Entry and Exit of Personnel and Equipment | 5-2 |
| 5.1.3 Contractor Work Planned and Contractor Work Accomplished | 5-3 |
| 5.1.4 Contractor Costs | 5-3 |
| 5.1.5 Site Conditions | 5-3 |
| 5.1.6 Cumulative Project Costs | 5-4 |
| 5.2 Options for Documenting Costs | 5-4 |
| 5.2.1 OSC Log/Site Log | 5-5 |
| 5.2.2 Detailed Daily POLREP | 5-6 |
| 5.2.3 Entry and Exit Logs | 5-6 |
| 5.2.4 Work Report | 5-6 |
| 5.2.5 Contractor Cost Report -- EPA Form 1900-55 | 5-7 |
| 5.2.6 Incident Obligation Log | 5-7 |
| 5.3 Fulfilling Cost Documentation Requirements | 5-8 |
| 5.4 The Site File Kit | 5-8 |

APPENDICES:

| | |
|-------------|--|
| APPENDIX A: | Initial Action Memorandum Format for Removals Less Than 12 Months and \$2 Million |
| APPENDIX B: | Initial Action Memorandum Format for Removals Requesting a \$2 Million Exemption |
| APPENDIX C: | Action Memorandum Format for Requesting an Exemption from 12 Month Statutory Limit |
| APPENDIX D: | Action Memorandum Format for Requesting a Ceiling Increase |
| APPENDIX E: | Action Memorandum Format for Requesting a \$2 Million Exemption and a Ceiling Increase |
| APPENDIX F: | Format for EE/CA Approval Memorandum |
| APPENDIX G: | Non-Allowable Costs Under Superfund |
| APPENDIX H: | Cost Tables for EPA Indirect Provisional Rates and the National Contract Laboratory Program |
| APPENDIX I: | Cost Projection Example |
| APPENDIX J: | Memorandum of Understanding Between EPA and Agency for Toxic Substances and Disease Registry |
| APPENDIX K: | Draft Memorandum of Understanding Between EPA and the Federal Emergency Management Agency |
| APPENDIX L: | Draft Memorandum of Understanding Between EPA and the U.S. Coast Guard |
| APPENDIX M: | Roles of Other Federal Agencies at Non-Federal Facilities |
| APPENDIX N: | References |

LIST OF EXHIBITS

| | <u>Page</u> |
|--|-------------|
| 2-1 Components of Cost Projection | 2-4 |
| 2-2 Projection of Extramural Costs | 2-14 |
| 2-3 Projection of EPA Direct Costs | 2-16 |
| 2-4 Projection of Intramural Costs | 2-18 |
| 2-5 Removal Project Ceiling Estimate | 2-20 |
| 2-6 CERCLA Removal Response Costs | 2-21 |
| 3-1 Methods of Obtaining Removal Cost Data | 3-9 |
| 3-2 Documenting Questionable Charges | 3-16 |
| 5-1 Cost Documentation Matrix | 5-11 |
| 5-2 Example of an OSC Log | 5-12 |
| 5-3 Example of a Detailed POLREP | 5-14 |
| 5-4 Example of a Personnel and Equipment Site Entry and Exit Log | 5-16 |
| 5-5 Example of a Hot Zone Entry and Exit Log | 5-17 |
| 5-6 Example of a Work Report | 5-18 |
| 5-7 EPA Form 1900-55 | 5-19 |
| 5-8 Example of an Incident Obligation Log | 5-21 |
| 5-9 Example of a Cost Documentation Index | 5-22 |

LIST OF ACRONYMS

| | |
|--------------|---|
| AA/ OSWER | Assistant Administrator for the Office of Solid Waste and Emergency Response, EPA |
| ATSDR | Agency for Toxic Substances and Disease Registry |
| CDC | Centers for Disease Control |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601 et. seq., 26 U.S.C. 4611, 4612, 4661, 4662, 4671, and 4672. |
| CLP | National Contract Laboratory Program |
| CA | Cooperative Agreement |
| DPO | Deputy Project Officer, EPA |
| EE/CA | Engineering Evaluation/Cost Analysis |
| ERCS | Emergency Response Cleanup Services |
| ERD | Emergency Response Division, Office of Emergency and Remedial Response |
| EPA | United States Environmental Protection Agency |
| ERT | Environmental Response Team |
| FEMA | Federal Emergency Management Agency |
| FIT | Field Investigation Team |
| FMD | Financial Management Division, EPA |
| FMS | Financial Management System |
| HMIRTP | Hazardous Materials Incident Response Training Program |
| HQ | EPA Headquarters, Washington, DC |
| IAG | Interagency Agreement |
| IOL | Incident Obligation Log |
| LDR | Land Disposal Restrictions, 40 CFR 260 |
| MOU | Memorandum of Understanding |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| NRT | National Response Team OSWER Directive 9360.0-02B |

LIST OF ACRONYMS
(continued)

| | |
|--------|--|
| OERR | Office of Emergency and Remedial Response |
| OSC | On-Scene Coordinator |
| OSWER | Office of Solid Waste and Emergency Response, EPA |
| PCMD | Procurement and Contracts Management Division |
| POLREP | Pollution Report |
| RA | Regional Administrator, EPA |
| RCMS | Removal Cost Management System |
| RCRA | Resource Conservation and Recovery Act, 42 U.S.C. 6901 et. seq. |
| REAC | Response Engineering Analytical Contract |
| RRT | Regional Response Team, EPA |
| SARA | Superfund Amendments and Reauthorization Act of 1986 (PL 99-499) |
| TAT | Technical Assistance Team |
| USCG | United States Coast Guard |

CHAPTER 1:

INTRODUCTION

The purpose of this manual is to outline a comprehensive cost management system for use by the U.S. Environmental Protection Agency (EPA) at removal actions authorized under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). This system requires that specific on-site and off-site cost information be documented, while offering flexibility to the On-Scene Coordinator (OSC) in documentation techniques. This manual modifies and updates cost management procedures detailed in the January, 1985, Removal Cost Management Manual.

1.1 REMOVAL COST MANAGEMENT

Cost management refers to the process of planning the costs of site objectives, and tracking and controlling costs to ensure they are commensurate with accomplishments. Cost management also involves documenting the planning and monitoring of all relevant activities in a legally defensible manner.

The purpose of cost management at a CERCLA removal action is to ensure that public funds are expended responsibly while threats to public health, welfare, and the environment are mitigated in a manner that is consistent with CERCLA (as amended) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). In addition, conscientious cost management strengthens the Federal government's claims when seeking

reimbursement from responsible parties (RPs) for response costs incurred during Federal-lead CERCLA removals.

Ultimately, the On-Scene Coordinator (OSC) is responsible for ensuring that removal costs are managed and documented adequately. As the primary Federal decision-makers, OSCs are often summoned to justify actions taken and funds expended under their command. Therefore, it is essential that OSCs implement a program that ensures that resources are used effectively and efficiently and that adequate documentation exists to substantiate removal decision-making and expenditures.

As the cost manager at a CERCLA-funded removal action, the OSC plans the activities and costs to derive the project ceiling and then tracks these costs as the removal action progresses. The OSC is also responsible for documentation.

This manual identifies tools the OSC may use to manage costs effectively. The cost management system provides a means of financial quality assurance during a removal action. Quality assurance is the process of management review and oversight at the planning, implementation, and completion stages of a project. Cost projection, daily cost tracking, and cost documentation all provide mechanisms to substantiate removal decision-making and expenditures.

This manual offers guidance to OSCs on developing a comprehensive cost management system. Each chapter addresses one of the major elements of an effective cost management system. Chapter 2, Cost Projection, describes a method for reasonably forecasting the costs of a removal. This will aid the OSC in avoiding cost overruns and delays associated with seeking increases to the approved project cost ceiling. Chapter 3, Cost Control, explores ways to control on-site costs through general cost planning, cost tracking, monitoring contractor efforts, and verifying contractor charges. Chapter 4, Cost Recovery, describes the OSC's role in maintaining legally defensible records that can serve, when needed, to support cost recovery actions against responsible parties. Finally, Chapter 5, Cost Documentation, provides suggestions on how to document costs so

that the information necessary for cost projection, cost control, and cost recovery is recorded in an easily accessible manner. A list of references and appendices is also provided as support material to the cost management system.

1.2 APPROACH TO COST MANAGEMENT

A basic tenet of removal cost management is that costs can be managed and documented most effectively from the removal site command post. Costs are best controlled and documented as they occur. The primary responsibility for cost management rests with the OSC.

Given the rapid response time required at most CERCLA removal actions, the demands on the OSC's time and attention are great. It is understood that the OSC alone will not be able to carry out all cost management responsibilities, and therefore will delegate certain duties to other on-site and off-site personnel. The Regional Administrative Support Unit will assist the OSC with cost management and documentation responsibilities at removal actions. The cost management scheme outlined in this manual, therefore, strives to achieve effective cost management without excessive paperwork and duplication of effort.

The success of the cost management approach is largely dependent on detailed documentation of on-scene activities and costs. This approach emphasizes the specific information necessary for effective cost management, rather than the specific form for recording such information. As a result, particular attention should be given to Chapter 5, which outlines the information that must be provided by the OSC for each removal action. This information is required, and the OSC will be held responsible for ensuring that the information is recorded in an easily retrievable and coherent manner. To help OSCs develop cost documentation suited to their needs, Chapter 5 outlines various documentation tools available to the OSC for fulfilling each information requirement. The cost documentation approach described herein provides the OSC with the necessary

flexibility to take into account site-specific conditions and personal management style when documenting costs. The specific types of information that must be recorded is consistent for all removal actions, but the OSC may use any form or combination of forms to document the required information. Of the documentation tools described in Chapter 5, only the Contractor Cost Report (EPA Form 1900-55) is required. In addition, each piece of recorded information must be filed in an organized manner for future reference. A standardized site file kit has been developed for this purpose (see Section 5.4).

1.3 CHANGES IN THE CURRENT EDITION

The manual has been revised to account for changes in the Superfund legislation (specifically, SARA); regulations, policies, and procedures stemming from that legislation; and the new contracts awarded for Emergency Response Cleanup Services (ERCS) and the Technical Assistance Teams (TAT).

The changes set forth in SARA may significantly affect the complexity, duration, and cost of a removal action. These changes include the increase in the statutory limit on the duration of a removal; the requirement to ensure that actions are consistent and contribute to the efficient performance of long-term remedial actions; the increase in the statutory ceiling to \$2 million; and the encouragement of the use of alternative technologies and more "permanent" solutions. The cost management procedures of this manual have been revised to account for the coordination, documentation, and in-depth preparation associated with these new or expanded tasks.

In this edition of the manual, significant changes have been made to the methodology for cost projection, especially in the areas of Regional and Headquarters indirect costs. Chapter 3, on cost control, has been modified to help OSCs understand the cost implications of the new ERCS contracts. Methods of tracking site costs have been improved to help the OSC monitor the project ceiling more closely. The documentation procedures in

Chapter 5 have also been modified, and the appendices have been updated with current information.

1.4 USING THE MANUAL WITH RCMS

This manual is being released in coordination with Version 3.0 of the Removal Cost Management System (RCMS) software. The software is designed for on-site use, and automates some of the concepts of cost management described in this manual. It also ensures that costing methods are applied consistently throughout the removal program.

The cost projection module of RCMS should be used with Chapter 2 of this manual; the RCMS software will guide the user through the same step by step process as this manual, and provide speed, accuracy, and flexibility during cost projection. Chapter 3 of this manual explains the procedures associated with tracking the costs of a removal action on a daily basis. Use of the RCMS should greatly increase the efficiency and accuracy of on-site cost tracking. The 1900-55 module has been developed to accommodate the provisions of all ERCS contracts and provides for daily tracking of cleanup contractor costs. The Daily Cost Summary module provides for a daily accounting of all major cost components incurred at removal actions. The Site Summary module can provide valuable information on the individual cost components of the removal action. An added feature of the RCMS is the ability to view cost information in a format similar to the ERCS contractor invoices. This feature should prove valuable to the OSC in reconciling contractor invoices.

The OSC or designated cost manager is encouraged to become familiar with the RCMS software and RCMS User's Guide, and to learn to use the software in conjunction with the procedures of this manual. EPA provides training for both cost management and use of the RCMS.

CHAPTER 2:

COST PROJECTION

An OSC must be able to forecast costs in anticipation of initial and ongoing funding needs. With the exception of classic emergency situations, detailed below, the OSC must estimate the total project cost in order to request approval for initiation of the removal action and sufficient funds for the completion of the action.

2.1 COST PROJECTION AND THE ACTION MEMO PROJECT CEILING

The EPA Regional Administrator (RA) or Assistant Administrator (AA) of the Office of Solid Waste and Emergency Response (OSWER) or other officials with delegated authority in accordance with delegations 14-1-A, 14-2-B, 14-3, and 8-33, will determine whether to approve a removal action under CERCLA based on information provided in an Action

Memorandum prepared by the OSC (see Appendices A and B). A more detailed discussion of preparation of the Action Memorandum can be found in Section III-C-3 of the Superfund Removal Procedures Manual (Revision #3). An important element of the Action Memo is the OSC's projection of the total project cost. This chapter provides guidance in projecting the cost of the removal action by estimating the costs of individual elements of the project.

In certain emergency situations, the urgency of the need for threat abatement will not allow time to calculate project costs before beginning the removal action. Where OSCs have been delegated authority to obligate up to \$50,000 to initiate removal actions, the Superfund Removal Procedures Manual (Revision 3) requires the OSC to document the decision

in an Action Memo within 24 hours of initiating action, whether or not the project will require further funding. The Action Memo will include a statement of costs already obligated, and an estimate of any additional costs. Section III-C-9 of the Superfund Removal Procedures gives further guidance on use of the \$50,000 authority.

2.1.1 The Project Ceiling

Once approved, the cost projection specified in the Action Memo becomes the formal project ceiling. The project ceiling, which must also be included in a request for a ceiling increase or request for exemption to the 12-month/2 million dollar limits, may not be exceeded without written approval of the RA or AA (or appropriate delegated official), depending on the ceiling amount. The process of requesting an increase in the project ceiling (see Appendix D) requires approval of a ceiling increase request Action Memorandum which includes a formal justification, as discussed in the Superfund Removal Procedures Manual. Until a ceiling increase is authorized, and further funds are approved, no additional funds may be spent at a site. Response teams may be demobilized if a ceiling increase is not authorized. Consequently, delay of the project will probably increase its cost (because of the demobilization and remobilization of response teams) and may have harmful effects on health and the environment. The costs associated with down-time will also be difficult to justify during cost recovery litigation. In order to avoid delays and excessive costs, it is crucial that the OSC properly and accurately estimate the costs of the removal action.

2.1.2 Policy Regarding Investigatory and Enforcement Costs

The Superfund Removal Procedures (Section III-C-4) states that the cost of all investigatory and enforcement (104(b) studies) activities is exempt from the \$2 million statutory ceiling and the overall project ceiling. After a removal action begins,

however, it can be difficult to keep separate on-site accounts for investigatory or enforcement-related activities.

In recognition of the difficulty of maintaining separate cost accounts for enforcement and investigatory activities, the removal program has adopted the policy that all on-site costs that are 1) directed by the OSC, 2) performed by the cleanup contractor, and 3) initiated after approval of the Action Memorandum are to be counted as response costs, and therefore are considered part of the project cost ceiling. Categories included in the project ceiling are:

- o Extramural costs (e.g., cleanup contractor, subcontractor, waste transportation and disposal, other federal agency costs, TAT and other support contractors)
- o Intramural (EPA) costs, both direct and indirect, including labor and other costs, incurred on site, in the Region, and at Headquarters.

Note, however, that investigative activities or 104(b) studies which take place before on-site cleanup begins, such as the Preliminary Assessment, will not be included in the project ceiling. The Engineering Evaluation/Cost Analysis (EE/CA) is an example of a 104(b) activity which is specifically exempt from the project ceiling. Even if the EE/CA is performed after the removal begins, it will have its own Approval Memorandum and project ceiling (see Appendix F). Any costs associated with these activities (including sampling or analytical costs, and intramural or extramural labor hours used to gather information) are not to be included in the project ceiling for the removal action.

2.2 PROJECTING THE COST OF A REMOVAL

This chapter presents an approach for scoping a removal action and for preparing cost projections (see Exhibit 2-1). The first part of the process deals with developing the scope of work for the project. The second part explains how to estimate costs for the project. These eleven components of cost projection are presented as sequential steps. It is not necessary to follow this sequence, as long as all the

**EXHIBIT 2-1
COMPONENTS OF COST PROJECTION**

Scoping the Project:

- 1
Identify objectives of the removal action
- 2
Develop the scope of work
- 3
Develop a time frame for the project
- 4
Identify equipment and personnel requirements
- 5
Select appropriate contracting mechanism

Projecting Initial Cost:

Extramural

- 6
Determine cleanup contractor costs, including subcontractors, waste transportation and disposal, and a contingency
- 7
Determine TAT, external laboratory costs, and other support contractor costs
- 8
Subtotal extramural costs, apply 15% contingency

Intramural

- 9
Determine EPA direct costs
- 10
Determine EPA indirect costs
- 11
Calculate the project ceiling

components are included in the cost projection process. It is also possible to perform some steps simultaneously.

These procedures are used to create a cost projection for an initial Action Memorandum; they are also to be used to project costs for a ceiling increase request (See Appendix D). When requesting a ceiling increase, the scoping and costing methods outlined below are applied to the remaining portion of work to be done, not to the entire project.

2.2.1 Scoping the Project

The Preliminary Assessment is generally performed prior to writing the Action Memorandum, with the exception of removals that are classical emergencies or require the use of the \$50,000 emergency authority. The Preliminary Assessment is considered a 104(b) investigation; therefore, costs incurred are exempt from the project ceiling. During the Preliminary Assessment, (as explained in Section III-C-3 of the Superfund Removal Procedures), the following information will be obtained:

- o the location of the emergency or release, the extent of contamination, the population at risk, and all available details of the situation that will define the objectives of the removal action;
- o the immediacy and significance of the threat to public health and/or the environment, as well as the precautions that must be taken for the safety of response personnel; and
- o the existence of a non-Federal party(s) (such as State or local personnel, or the responsible party) to undertake a proper response.

Once it is determined that a removal action is needed, the OSC is then ready to use this information and begin the procedure for developing the cost projection.

In order to determine the scope of the project, it is necessary to identify the objectives of the removal action, define the scope of work, develop a project time frame, identify equipment and personnel needs, and select the appropriate contracting mechanism.

1: Objectives of the removal action. Using the data obtained during the Preliminary Assessment, the OSC must define the objectives of the removal action. These objectives should identify what kind of action will be taken at the site and the extent of the planned cleanup. All concerned parties (e.g., participating State agencies and the potentially responsible parties) should understand the objectives and limitations of the removal action before an action is initiated.

2: Scope of work. After the objectives of the removal action have been defined, the OSC must develop the scope of work and determine specific tasks that must be performed. Because there may be significant gaps in the available information at this early stage, the OSC must make assumptions about the nature and extent of the tasks at hand (e.g., the number of drums that must be overpacked, staged, and removed from the site or the dimensions of a containment pond that should be constructed). Given the limited information available, OSCs must use their professional judgment to make the best possible estimate of the scope of work necessary to abate a release or threat of release. The OSC may request assistance from the TAT or ERT and their contractors, as well as discuss the anticipated scope of work with other OSCs. In order to avoid a potential conflict of interest, the scope of work should not be developed by (or with the assistance of) the cleanup contractor.

3: Time frame for the project. Estimation of the time frame for the project is linked in some instances with the scope of work. The larger the scope of work, the more time will be needed for the removal. On the other hand, if a site requires a rapid removal action, the scope of work is likely to be correspondingly smaller.

The project time frame can determine whether daily, weekly, or monthly ERCS equipment rates are used to calculate costs. Because monthly rates can provide a substantial savings for long-term projects, accurate projections of project length are an important

budget consideration. Past experience, discussions with other OSCs who have worked in similar situations, and OSC reports from other sites are probably the three best sources of information for determining the amount of time needed to complete a project. Site conditions (e.g., hazards, weather, and mobility of heavy equipment) have an important bearing on determining the length of the operation. The projected time frame should include the estimated turnaround time for sample analysis, and time for coordinating subcontractors such as those used for transportation and disposal. Transportation and disposal of wastes can extend the length of a project significantly. Time must also be allowed for the temporary off-site storage of materials before ultimate disposal, and for mobilization, decontamination, and demobilization during the project.

4: Equipment and personnel needs. The OSC must examine the equipment and personnel needs and availability required to accomplish the objectives of the removal. Having identified the need for a specific expertise from TAT, for example, the OSC will need to determine the availability of that expertise. If it is not available, then alternative arrangements to obtain that expertise must be identified. An OSC should consider the following factors when determining the type and quantity of equipment and personnel necessary to perform the tasks of the removal:

- o availability of Federal personnel and government-owned equipment;
- o availability and expertise of TAT personnel (e.g., chemist, engineer);
- o specific personnel requirements from the cleanup contractor;
- o availability of a contractor to provide alternative technology (e.g., potassium polyethylene glycol (KPEG), incineration);
- o availability of contractor specialized equipment (e.g., drum grapplers, portable effluent treatment systems);
- o safety requirements that limit the use of personnel and/or equipment;
- o mobilization, decontamination, and demobilization procedures needed;
- o necessary waste transportation and disposal operations;

- o Federal, State, and local permits necessary to complete the project in recognition of applicable, relevant and appropriate regulation (ARARs);
- o local ordinances that require fire, police, or other site security measures;
- o physical site security requirements.

Often equipment and services are more readily available or cost less when procured from other government agencies (Federal, state, or local). Section 3.1.1 offers suggestions on locating such equipment and services.

5: Appropriate cleanup contract. The information on objectives, scope, time frame, and personnel requirements gathered in Steps 1-4 will define the parameters necessary for an appropriate and efficient response. The OSC should then use these parameters as decision criteria for selecting an appropriate cleanup contractor from a list of Emergency Response Cleanup Services (ERCS) contractors.

EPA is improving and expanding the nature and number of cleanup contracts. As of the publication date of this manual, three different types of cleanup contracts are available in some Regions: Zone ERCS contracts, Regional ERCS contracts, and site-specific contracts. Selection and initiation of the appropriate contract type will be specific to the type of incident as well as the exigencies of the situation. The ERCS Contracts Users' Manual provides specific guidance on selecting the appropriate cleanup contractor; however, the OSC should be familiar with the relative costs of using each of the different types of cleanup contractors available. The OSC should coordinate with Contracting Officers at Headquarters or in the Region to determine which contracts and contractors are available. Through the selection of a contractor, the OSC will have new options for improving cleanup capability and the cost efficiency of a removal. Section 3.1.2 provides further clarification of the cost implications of ERCS contractor selection.

Zone ERCS Contracts: The United States is divided into four Zones where each Zone is covered by a separate Zone ERCS contract. The Zone contracts may be used when response initiation time is extremely limited or a unique service provided by that company is needed. Only the Zone contracts will provide guaranteed response time within 24 hours or less. A total of seven Zones are planned.

Regional ERCS Contracts: These contracts will differ from the Zone contracts by requiring less stringent and less comprehensive emergency response cleanup services in less urgent time frames. The geographic coverage of a Regional contract will be smaller than that of a Zone contract.

Site-Specific Contracts: These contracts will be awarded on a limited or full and open competition basis depending on the time available prior to initiation of a response. The Emergency Response Division (ERD) and the Procurement and Contracts Management Division (PCMD) are currently coordinating efforts to provide each Region with a source list of prequalified firms. When it becomes apparent that a site-specific cleanup contract may be useful for the removal action, the OSC should contact the contracting office to determine whether the prequalified competition process is appropriate for completing work at the site. If nine months or more are available, the contract should be offered on a basis of full and open competition. The forthcoming Alternative Technology Guidance discusses the use of site-specific contracts to obtain contractors using available alternative technologies.

Removal Program Land Disposal Restrictions (LDR) Implementation Guidance requires OSCs to implement LDR treatment standards for all "California List" wastes, including PCBs, to the degree practicable. The Administrative Guidance for Removal Program Use of Alternatives to Land Disposal (OSWER Directive #9380.2-1) offers guidance on contracting for alternative means of disposal:

If an alternative technology is selected as the removal action option, a decision must be made whether to use an existing ERCS contract, or to competitively or non-competitively award a separate contract. Among the factors which should be assessed when making this decision are: the urgency of the acquisition, the adequacy of specifications, the number and identity of potential contractors for the option selected, and whether a particular contracting approach offers administrative or cost savings. The Procurement and Contracts Management Division (PCMD) can assist in making this decision.

The alternative technology guidance explains the appropriate process to use for identifying types of technologies and the Headquarters approval officials for use of those technologies (depending on the type of contract and the amount, concurrences from ERD and PCMD may be necessary).

2.2.2 Projecting Costs

Because of the likelihood of increased complexity of removal actions (due to legislative and regulatory requirements discussed in Section 1.3), direct and indirect costs of removal actions are likely to increase. The coordination, documentation, and in-depth preparation associated with the land disposal restrictions (LDR or land ban), and longer removals, for example, also require that cost estimates now include the necessary additional technical and administrative support hours used or charged in the Region and Headquarters. Cost recovery efforts for sites addressed early in the removal program indicate that EPA intramural direct and indirect costs were heavily underestimated. Estimates for costs related to these tasks need to be included in the cost projection.

Note that calculations in steps 6 - 11 are presented for explanatory purposes. Once estimates of hours and other costs have been made and entered into the computer, the RCMS software will perform the necessary calculations.

Extramural Costs

6: Cleanup contractor, subcontractor, waste transportation, and disposal costs. This step includes the majority of the extramural cleanup costs at a removal action, including: ERCS, IAGs, CAs, letter contracts, notices to proceed, and a 10-20% contingency of the above costs.

The price list for the ERCS contractor selected in Step 5 is the major source of information for obtaining rates for the various cleanup personnel and equipment identified in Step 4. When appropriate, it is important to include per diem expenses when estimating the labor costs for the cleanup contractor. The new ERCS contracts now allow for more items which are reimbursed at cost, as well as more "no charge" items. These new terms should reduce the cost for some commonly used equipment and therefore reduce the project ceiling. The OSC should become familiar with the terms of all cleanup contracts as they are awarded. If more information or clarification is needed, the OSC should contact the ERCS Deputy Project Officer (DPO), the Regional Contract Officer (if available), or the Contract Officer at Headquarters. For items not covered by the ERCS price list, the OSC can refer to standard construction cost information manuals, commercial price lists obtained from other contractors, product literature, the handbooks listed in Section 2.3, and past OSC reports for cost information. Section 3.1 of this manual offers suggestions and guidance for identifying supplies and services at lower than commercial costs.

Waste transportation and disposal costs may be difficult to estimate if these rates have not been negotiated in the cleanup contracts. If these rates are not available through the ERCS contract, the OSC may use past OSC reports or request TAT assistance to prepare preliminary estimates. If past OSC reports are used, an inflation factor should be used. It is not possible for this manual to provide a universally accurate factor to account for inflation because transportation and disposal costs have escalated dramatically in the last few years. The OSC may use TAT assistance to contact disposal

facilities at the time the costs are being estimated. Also, discussing potential expenses with other OSCs, especially if they have had experience with similar situations in the past, may be very helpful in estimating costs.

In addition to the expenses listed above, there are many other extramural costs which may affect the total project ceiling, including:

- o services of other Federal agencies (e.g., U.S. Coast Guard or Federal Emergency Management Agency);
- o State and local agency services obtained by letter contract;
- o cooperative agreements with State agencies; and
- o other anticipated external costs such as utilities, materials, and right-of-way payments.

The OSC should make specific estimates for any "other cost" that can be anticipated.

To allow for unforeseen cleanup contractor expenses that may arise during a removal (e.g., discovery of additional hazardous substances, delays resulting from poor weather conditions, equipment failure, or increased disposal costs due to market and regulatory compliance changes), a contingency allowance of 10 - 20 percent should be added to the cleanup contractor cost estimate. The specific percentage rate used for the contingency allowance must be determined on a site-by-site basis, depending on the degree of uncertainty surrounding the cost estimate, and the particular conditions at each site.

7: TAT and other support contractors. Estimate the number of TAT hours needed to complete the project. These hours should include off-site as well as on-site hours. Note that the hours charged to the site during a Preliminary Assessment (or other 104(b) study) to generate data for an EE/CA, and during PRP (Potentially Responsible Party) monitoring activities, are considered investigatory and enforcement costs, and are not charged against the total project ceiling. Each TAT Professional Level (PL) has an averaged regional rate. This rate is available through the TAT Leader or the TAT Zone

Program Management Office (ZPMO). Multiply the number of hours times the appropriate PL rate. Then add an allowance for hotel, per diem, rental car, and other estimated expenses, which are available through the TAT Leader or lead TAT member for a project.

To cover administrative costs of the TAT program, an administrative multiplier, which includes overhead expenses, is applied towards all TAT expenses. This factor, available through the TAT Leader or ZPMO, is multiplied by the sum of the personnel and expense amounts listed above, to estimate total TAT expenses for the removal action.

Analytical services may be obtained through the following mechanisms: TAT Analytical TDDs, Contract Laboratory Program (CLP), or Regional laboratories. TAT will be able to provide an estimate of the cost of a specialized quick turnaround analysis. Instructions for estimating CLP costs are found in Appendix H. Regional laboratory costs are considered intramural direct expenditures and are estimated in Step 10. All laboratory estimates should include costs of sample extraction, analysis, data validation, data reduction, and quality control.

Also estimate any hours for other support contractors, including the Field Investigation Team (FIT) and the Response Engineering Analytical Contract (REAC).

8: Subtotal of all extramural costs. The next step in the calculation of the project cost is to sum the costs obtained in steps 6 and 7 to obtain the subtotal of extramural costs. To allow for unforeseen or unanticipated expenses, a contingency factor of 15% is applied to the subtotal of the extramural costs.

Exhibit 2-2 summarizes the process of estimating extramural costs.

EXHIBIT 2-2: PROJECTION OF EXTRAMURAL COSTS**Extramural Cleanup Contractor Costs**

- * Costs of prime ERCS Contractor (Zone contractor, Regional ERCS contractor, or site-specific contractor): personnel, equipment, and materials
- * Costs of subcontractors (including waste transportation and disposal)
- * Other Federal Agencies (IAGs)
- * State and local agencies, through cooperative agreements (CAs) or letter contracts

Support Contractors

- * TAT
- * REAC, HMIRTP
- * CLP
- * FIT

Intramural Costs

9: EPA direct costs. An estimate should be made of the costs for EPA labor and other direct costs, both on-site and off-site. Estimates should include hours for (1) the preparation and review of work plans, safety plans, quality assurance project plans, and the OSC Report; (2) data validation/evaluation; and (3) document control. The estimate should also include costs of chemical analyses if Regional laboratories will be used. Regional laboratory costs are estimated with input from the laboratory director; the OSC must be sure to include sufficient hours for data validation, data reduction, and quality control.

To project EPA direct costs, an estimate must first be made of total direct intramural labor hours; this estimate should include an estimate for anticipated hours from Regional personnel (**Total Direct Regional hours**), and personnel outside of the Region (i.e., Headquarters, ERT, or other Regions). Because it is often difficult to estimate hours for Headquarters personnel, the Comptroller's Policy Announcement No. 87-15 states that a reasonable estimate of 10% of the total direct Regional hours should be used. The total number of direct intramural hours (Regional plus outside of the Region) is then multiplied by the average loaded direct labor hour rate (to account for salary and fringe benefits) to estimate intramural direct labor costs. This loaded rate will be provided in the future through the FMD Office or the Superfund Accounting Branch.

A separate estimate must be made for other direct costs (e.g., travel, per diem, and lodging). Exhibit 2-3 lays out an example of the projection of EPA direct costs. Note that demonstrations of calculations are for explanatory purposes only; RCMS will perform all calculations after estimates of hours and other direct costs are entered into the system.

EXHIBIT 2-3: PROJECTION OF EPA DIRECT COSTSRegional

| | |
|--|-------------|
| * On-site and off-site hours | 300 |
| * Planning, writing, and reviewing reports | 60 |
| * Regional laboratory hours | <u>+ 40</u> |
| <u>Total Direct Regional Hours</u> | 400 |

Outside of the Region

| | |
|--|----------|
| * Assistance from other Regions | 0 |
| * Assistance from ERT | 60 |
| * Headquarters direct hours (Project as 10% of Total Direct Regional Hours) | 40 |
| | <u>+</u> |
| | 100 |

TOTAL EPA DIRECT HOURS: 500

(Hourly Direct Labor Rate) x \$ 30

TOTAL EPA LABOR COSTS \$15,000

Other Direct Costs: \$ 1,000
(travel, per diem, lodging)

TOTAL EPA DIRECT COSTS: \$16,000

10: EPA indirect costs. Indirect costs are those costs which are necessary to the operation of the program and support of site cleanup efforts (e.g., management support and overhead costs from the Region and from Headquarters), but cannot be directly identified to the efforts at any one site. A portion of these indirect costs will be charged to each Superfund site, and the OSC must include an estimate of these costs in the cost projection. The Comptroller's Policy Memo No. 87-15 offers instruction on estimating indirect costs. Indirect hours are estimated by multiplying the total direct Regional hours estimated for the site by a precalculated "provisional indirect cost rate." A table of regional rates appears in Appendix H.

For example, if the total direct Regional hours are estimated at 400 (as in Exhibit 2-3), and the provisional indirect cost rate was \$60 for the Region, indirect costs for the site would be estimated at $(400) \times (\$60)$, or \$24,000. The total dollar figure represents the estimate of total indirect costs (both Regional and Headquarters) which will be charged to the site. Further explanation of the indirect cost rates can be found in the Superfund Indirect Cost Manual, March 1986.

Estimation of intramural costs (direct and indirect) is summarized in Exhibit 2-4 (Steps 9 and 10).

11: Total project ceiling. The total extramural costs plus the intramural costs (EPA direct and indirect costs) compose the project ceiling. The project ceiling should be the sum of all personnel, equipment, and other costs estimated for the project (Steps 6-11).

Exhibit 2-5 provides an example of this cost projection method as applied to a hypothetical removal project. Exhibit 2-6 illustrates the funding sources for each of the different costs estimated in the cost projection process.

EXHIBIT 2-4: PROJECTION OF INTRAMURAL COSTSEPA Direct Costs

- * Costs charged by Regional employees (e.g., OSC, section chief, Regional Lab) 400
- * Costs charged by EPA employees outside of the Region (i.e., ERT, Headquarters, other Regions) 100

TOTAL EPA DIRECT HOURS 500

(Hourly Direct Labor Rate) x \$ 30

TOTAL EPA LABOR COSTS \$15,000

Other Direct Costs: \$ 1,000
(travel, per diem, lodging)

TOTAL EPA DIRECT COSTS: \$16,000

Indirect Cost Formula:

| | | | | |
|---------------------------------------|---|--|---|----------------|
| Region-Specific Indirect Cost Rate | x | Estimated Regional Direct Labor Hours | = | Indirect Costs |
| \$60 | | 400 hours | | \$24,000 |

TOTAL EPA INDIRECT COSTS \$24,000

TOTAL INTRAMURAL COSTS \$40,000

2.3 SOURCES OF COST INFORMATION

OSC reports from previous removals generally contain technical information on field operations, a chronological history of the work completed, and the costs incurred. By reviewing these reports for cost data associated with specific tasks (e.g., staging drums, regrading for surface drainage), information may be obtained to assist with estimating the costs of similar tasks at other removal actions. Cost data should be adjusted for inflation. Although OSC reports may provide a serviceable estimate for cost projection and cost tracking, it is extremely difficult for one information source to provide cost information which is applicable across the country for all types of removal actions.

In addition to the references noted in Step 6, other sources of information include the Removal Tracking System and the Financial Management System. The Handbook for Evaluating Remedial Action Technology Plans (EPA 600/2-83-076) and the Handbook for Remedial Actions at Waste Disposal Sites (EPA 625-6/85/006) may also provide useful technical and cost estimating information for work tasks common to both remedial and removal actions. Regional Coordinators in the Emergency Response Division can also have information about other Regions where similar removal actions may have been conducted.

Transportation and disposal costs are among the most variable costs from site to site. Disposal costs will vary depending on the type and concentration of contaminants as well as the quantity of waste. The OSC, with assistance from TAT, should call the facilities most often used by the Region and obtain estimates for disposal costs.

Transportation charges vary depending on the distance of the disposal facility from the site. However, if the OSC knows which facility may be used, then a cost estimate can be determined by multiplying the mileage from the site to the disposal facility by the transportation costs per mile. The OSC should try to be aware of current costs of transportation and disposal services.

EXHIBIT 2-5

REMOVAL PROJECT CEILING ESTIMATE

Extramural Costs

Extramural Cleanup Contractor

(includes ERCS, letter contracts, IAGs,
CAs, Regional ERCS, and a contingency
contingency can be 10 - 20%)

\$750,000
+ \$112,500 (15% contingency)
\$862,500

TAT Costs

\$50,000

NCLP Analytical Costs

\$100,000

ERT Contract (REAC)

+ \$100,000

Subtotal -- Extramural Costs \$1,112,500

15% Contingency of Above Costs

(round to nearest thousand) + \$167,000

TOTAL -- EXTRAMURAL COSTS

\$1,279,500

Intramural Costs

Direct Costs

[\$30 x 500 labor hours (400 Regional/40 HQ/60 ERT)]

\$15,000

Indirect Costs

\$24,000

Other Direct Costs

+ \$1,000

TOTAL -- INTRAMURAL COSTS

\$40,000

TOTAL REMOVAL PROJECT CEILING ESTIMATE:

\$1,319,500

Indirect Cost Formula:

| | | | | |
|---------------------------------------|---|--|---|----------------|
| Region-Specific Indirect Cost Rate | x | Estimated Regional Direct Labor Hours | = | Indirect Costs |
| \$60 | | 400 hours | | \$24,000 |

Date 4/88

2-21

CHAPTER 3:

COST CONTROL

Cost control, the second element of cost management, ensures that public funds, once approved, are expended responsibly, and that resources are used effectively and efficiently to avoid unnecessary removal costs. Cost control involves five primary tasks:

- o general cost planning;
- o on-going cost projection;
- o cost tracking:
 - extramural
 - intramural
- o cost monitoring; and
- o verification of cleanup contractor charges.

This chapter explores each of these cost control mechanisms.

3.1 GENERAL COST PLANNING

Cost control generally begins before the removal action is initiated. The OSC must plan to ensure that the government secures the most efficient services and equipment, whenever practicable. This section identifies a number of planning activities that an OSC should undertake to become an effective cost manager. Cost planning is also necessary to provide the best daily cost estimates (Chapter 2) and to ensure that the project stays within the budget of the project ceiling.

3.1.1 Identify Non-Commercial Support Services and Response Equipment Available to the Region

Often support services and response equipment may be available through Federal, State, or local agencies at a lower cost than through available commercial vendors. To identify least-cost resources, an OSC can:

- o Review National, Regional, and State contingency plans. Contingency plans often list expertise and equipment available through different agencies and, therefore, are an important resource for the prospective cost manager. By reviewing existing contingency plans, the OSC can identify the response capabilities of organizations which may be available to assist the Regional project (e.g., member agencies on the Regional Response Team). These plans may also help identify non-commercial sources of response equipment (e.g., emergency lighting through a local maintenance department).
- o Identify responsibilities and roles that other Federal agencies may play in response activities. As described in Section 300.21 of the NCP and delegated in Executive Orders 12580 and 86735, a variety of Federal agencies may be called upon by an OSC during the planning or implementation of a response to provide assistance in their respective areas of expertise. The Superfund Removal Procedures Manual also details the use of IAGs and MOUs during response activities. Appendix M provides a description of the assistance other Federal agencies may supply at Superfund response actions.
- o Review existing agreements with Federal and State agencies for the performance and reimbursement of Superfund-related activities. EPA has negotiated several standing agreements with Federal and State agencies for the performance and reimbursement of certain Superfund-related activities. Such agreements may take a variety of forms, including Memoranda of Understanding (MOUs) or Interagency Agreements (IAGs) with Federal agencies, and cooperative agreements or Letter Contracts with States. OSCs should review existing documents (such as the January 4, 1982, MOU between the EPA and the USCG, reproduced in Appendix L) to learn the terms of the agreements and the available

resources. In addition, an OSC should become familiar with the procedures for securing and compensating Federal and State agencies for services rendered on-site. Appendix L summarizes the current administrative procedures for procuring such services and includes an explanation of EPA's relationship with the USCG.

3.1.2 Identify Cleanup Services Available to the Region

Identification of the appropriate cleanup contractor is part of the process for scoping the project (see Section 2.2.1). The ERCS Contracts Users Manual provides guidance on selecting contractors to clean up sites; however, the OSC should become familiar with the costs of using each of the different types of ERCS contractors available. The ERCS Zone contracts are likely to be the most expensive because they are bid using "emergency response" price lists. The prices include contingencies for the rapid response time required by the contract, as well as the many unknowns that may be encountered during a removal action.

Since the Regional and site specific contracts contain less restrictive response initiation times and are more limited in geographical response area, these contracts may be less costly to use; however, the OSC should confirm this before selecting a contractor. The contractors may also offer a special expertise or may be available locally in a given area. Again, these considerations may reduce the cost of a project. In addition, companies will bid on site-specific contracts knowing the site conditions and scope of work. This information, resulting in a lower degree of uncertainty, should reduce the cost of contingencies normally associated with response to unknown situations.

It may be cost effective to use more than one contractor on a site. For example, the removal may be divided into two phases, using the ERCS contractor for stabilization, and a site-specific contractor for treatment and/or disposal.

As a result of the increased number of contracts that can be used, the OSC should maintain familiarity with the capabilities of cleanup contractors in the Region. Updated

services and cost information should be verified, whenever possible, by Regional personnel. Such verification is especially important when considering the use of alternative technologies. The OSC should become familiar with the availability and effectiveness of the technologies being considered. Sources of information on alternative technologies include, but are not limited to: the Superfund Technology Transfer Program; ERT Technology Bulletins; ORD Publications Announcements; the ORD "Technology Transfer" newsletter; and the Superfund Innovative Technology Evaluation Program (SITE).

When a waste management facility is to be used as part of the cleanup operations, the NCP requires that the facility be in compliance with Subtitle C of the Resource Conservation and Recovery Act (RCRA), as amended by the Solid Waste Disposal Act. The OSC is also responsible for complying with the NCP provision that requires Fund-financed removals to use transport, storage, and disposal facilities operating under appropriate Federal or State permits and authorization (40 CFR 300.65(g)). The Off-Site Policy entitled, "Revised Procedures for Implementing Off-Site Response Actions," (OSWER Directive 9834.11) details how to implement this policy. For removal actions, compliance with the Off-Site Policy requirements is mandatory except in cases where the OSC or other appropriate Regional official determines that extenuating conditions exist. These conditions and requirements are detailed in section IV-A of the Superfund Removal Procedures Manual (Revision #3).

3.1.3 Maintain Field Safety Cost Information

The level of protection required for workers on-site will affect the cost of a removal action. The OSC should, therefore, maintain cost information on safety equipment, costs of operating and maintaining that equipment (available through ERCS contractors), and information on the length of time expected to perform cleanup tasks in all levels of protection. Some recently awarded cleanup contracts contain provisions for a broader definition of Other Direct Costs (ODCs) that include safety equipment. Certain items

will not be directly charged to the site and some equipment will be reimbursed at cost. For example, in Zone 4, if the ERCS contractor uses a cascade system, the system will not be directly charged to the project. However, the tyveks used will be directly billed at cost to the project. Effective cost control requires that the OSC be thoroughly conversant with site safety requirements and the contractual costs of those requirements. If a question arises, the OSC can obtain information from the ERCS DPO, Regional Contract Officer, or the Contract Officer at Headquarters.

3.2 ON-GOING COST PROJECTION

Removal cost projection does not end with the signing of the Action Memo. On-going projection and tracking (of both intramural and extramural expenditures) are essential elements of all removals. On-going cost projection refers to the process of periodically rescoping the project using the process outlined in Chapter 2. Re-examining the scope of work enables the OSC to re-evaluate the initial assumptions about cost of the project, and allows the OSC to make necessary revisions, request approval for additional funds, and track the costs against the statutory limits. The OSC will be aided in managing the removal by maintaining awareness of any deviations from the original assumptions that would change the original cost projection.

On a continuing basis, OSCs must keep track of remaining funds in order to 1) control costs, 2) anticipate the need for ceiling increases, or 3) request an exemption to the \$2 million statutory limit. If a removal action exceeds the total project ceiling or the \$2 million limit without an exemption approval, site work must cease immediately. Note that if work continues before new funds are authorized, the OSC is in violation of the Anti-Deficiency Act. If the authorized funds of the project ceiling are spent, then the site must be demobilized until the necessary approval has been received. This delay may pose a serious threat to human health and the environment. Moreover, work stoppage and demobilization are costly and an inefficient use of Federal funds and personnel. A

reasonable on-going projection, however, can help OSCs avoid exceeding statutory or Action Memo ceiling limits inadvertently. The following situation(s) should trigger an OSC review:

- o When the estimated total cost approaches \$1.6 million (or 80% of the project ceiling);
- o When an estimate has been received from a contractor that project costs will exceed \$2 million (or the Action Memo ceiling);
- o When 9 months have elapsed since the start of the removal action;
- o Or at any earlier time during the removal action, if the OSC believes that the \$2 million limit (or the Action Memo ceiling) will be exceeded.

For actions requiring more than \$2 million and/or 1 year, the \$2 million exemption/ceiling increase request should be in a separate Action Memorandum. Appendices C and E provide a model outline to aid the OSC in preparing the exemption requests and more detail is provided in section III-E of the Superfund Removal Procedures Manual (Revision #3).

3.3 COST TRACKING

The cornerstone of on-going cost projection is accurate daily cost tracking (both intramural and extramural). The importance of this activity cannot be overemphasized. To estimate the funds remaining to complete a removal, the OSC must have a reasonably accurate accounting of the costs incurred to date. Therefore, the OSC must utilize a system to track, on a daily basis, the costs being charged against a project ceiling. Chapter 5 details various tools that may be used to keep track of costs, including the computerized Removal Cost Management System (RCMS). Although there are manual methods for cost tracking, the RCMS is the preferred method because all records are archived and are easily accessible by other EPA personnel once site activities are completed by the removal program.

The task of developing a cost tracking system is complicated by the fact that many of the costs which count toward the project ceiling and the \$2 million statutory limit are not readily available to the OSC on a daily basis (e.g., off-site Regional and

Headquarters personnel costs). As a result, an OSC could exceed a statutory or project ceiling because of charges beyond his/her direct control or knowledge.

As discussed in Section 2.3, data from previous removals demonstrates that five major cost categories generally account for almost all removal costs. These categories are:

- o cleanup contract (ERCS) costs including subcontractor charges such as transportation, disposal, and analytical laboratory costs;
- o support contractor costs including TAT personnel costs and CLP analytical costs;
- o other Federal agency personnel costs (e.g., USCG Strike Team, FEMA);
- o EPA direct costs (e.g., intramural costs for on-site and off-site personnel salaries, Regional lab analysis, travel, per diem); and
- o EPA indirect costs from Regional management and administration. In the past, these costs were estimated as an additional 15% of all other costs, but are now being estimated with provisional rates (see Appendix H).

Therefore, an OSC can derive an estimate of the cost-to-date of a removal by daily tracking of the five elements listed above. The best way to determine what charges have been made to a site is through the Financial Management System (FMS), which is accessible by computer in each Region. The FMS can provide an accurate account of costs actually charged to the site. The only actual charges to a site that would not appear in the FMS are expenditures of other Federal agencies that are funded through transfer allocation Interagency Agreements (IAGs). FEMA IAGs are funded in this manner. A record of FEMA charges can be obtained monthly from the "FEMA: Status of Superfund" report. Headquarters costs may be obtained through the Financial Management Office in each Region. It is only necessary to track Headquarters costs on a weekly basis, unless Headquarters personnel are visiting the site and charging hours to it.

Although most costs will eventually be recorded in FMS, ERCS costs are not recorded in FMS until they are obligated, and other extramural costs are not recorded in FMS until they are paid. Exhibit 3-1 identifies the methods by which daily cost information can be obtained for the five elements listed above. In addition, Chapter 5 includes a suggested

Incident Obligation Log (IOL) that is designed to help the OSC keep a running total of overall project costs and individual totals for each major cost category (e.g., ERCS, EPA, TAT). The RCMS easily generates a computerized IOL and cost summary reports. The objective of the IOL form is to organize all cost information on a single sheet, thus allowing the OSC (or designated cost manager) to track costs toward the overall ceiling and the individual category limits (ERCS, TAT, etc.) simultaneously.

3.4 CONTRACTOR MONITORING

On-scene monitoring of contractor work is an essential feature of controlling costs at Superfund removal actions. Monitoring actions as they occur can lead to significant savings by ensuring that:

- o all work is consistent with OSC instructions;
- o the contractor uses equipment and personnel in the most cost-effective manner;
- o the quality of work is adequate to protect public health, welfare, and the environment; and
- o site workers adhere to safety protocols and demonstrate common sense in their actions.

In addition, documented cost monitoring can support cost recovery actions by verifying that total removal costs were not inflated by improper or excessive use of contractor resources.

An OSC's ability to monitor site work adequately is determined largely by two factors: (1) the number of personnel available to oversee contractor activities, and (2) the number of on-site activities (e.g., diking, tank draining, drum staging) that occur concurrently. The OSC should use available resources (e.g., EPA, TAT, USCG, and State personnel) to the extent practicable to ensure adequate oversight of cleanup contractor performance. At the OSC's discretion, non-Federal monitors, such as TAT or State

EXHIBIT 3-1**METHODS OF OBTAINING REMOVAL COST DATA**

| <u>Type of Cost</u> | <u>Method of Obtaining Cost</u> |
|--------------------------------|---|
| ERCS Contractor | Cleanup contractor provides costs for EPA Form 1900-55. |
| TAT | Multiply on-site and off-site TAT hours by the appropriate PL hourly rate. Per diem and travel expenses are added individually. Apply administrative multiplier to cover administrative costs. Each DPO receives a copy of the monthly invoice for site-specific charges. Estimated costs can be verified against this invoice. |
| USCG Strike Team | Strike Team will provide a daily cost accounting upon request. |
| Other Federal Agency | When an IAG for special assistance at a site is employed (e.g., a FEMA-managed temporary relocation), the agency representative should be able to provide costs of the agency services to date on a regular basis. |
| State and Local | At the request of the OSC, State and local personnel will provide a daily accounting of costs. Total State and local agency costs may not be available until the end of the removal action. |
| Intramural Direct | Multiply EPA on-site and off-site Direct labor hours by the Regional Direct labor hour rate for all personnel. |
| Intramural Indirect | Multiply EPA Regional direct on-site and off-site hours by the provisional rate provided in Appendix H, to obtain Regional Indirect Costs. |
| Intramural Headquarters Direct | Contact Regional FMO to determine if there are costs associated with the site from ERD. |

personnel, may observe the contractor and report any suggestions or problems to the OSC. Non-Federal employees (e.g., TAT), may not give direction to the cleanup contractor, but may perform oversight functions, record observations, and carry out the instructions of the OSC. The OSC should make every effort to be on site as much as possible to give proper direction. As stated in the Removal Procedures Manual, if an OSC leaves the site for more than 24 hours, an alternate should be designated. The TAT may not assume the responsibilities of the OSC. It is strongly suggested that the designee be a Federal employee; however, State personnel may be designated as the OSC.

OSCs must use professional judgment when deciding on how to allocate available personnel among competing site activities. Invariably, there will be pressure to use available personnel for important site duties (e.g., site safety officer and security officer) in addition to cost monitoring. The OSC, however, must not underestimate the importance of cost monitoring. The EPA Form 1900-55 is computerized on RCMS and therefore can be archived for future use by PCMD. Chapter 5 discusses the EPA Form 1900-55 in detail.

3.5 VERIFICATION OF CLEANUP CONTRACTOR CHARGES

Under the ERCS contracts, the contractor will supply the information to complete a daily Contractor Cost Report (EPA Form 1900-55), identifying all charges that will be billed to the Federal government as a result of services provided each day. (See copy and description of EPA Form 1900-55 in Chapter 5). Each of the ERCS contracts features four different categories of costs. Labor and equipment are charged by either (1) fixed rates or (2) provisional rates, depending upon the item. Invoices from subcontractor and rental agents are (3) cost reimbursement items. Overhead and general and administrative (G & A) costs are included in (4) indirect charges.

The OSC verifies the EPA Form 1900-55 to confirm that contractor services were rendered as stated. In doing so, the OSC confirms that the hours of work charged for

personnel, equipment, and any other services are correct. Rate verification, however, is not the responsibility of the OSC (see Section 4.3). Daily verification of the Contractor Cost Report provides a check on possible contractor oversights (and abuses). Verification also helps to avoid disputes of specific contractor charges in cost recovery actions (see Chapter 4).

The following sections describe suggested methods for verifying: (1) personnel charges, (2) equipment charges, (3) charges for expendable materials, and (4) subcontractor charges. In addition, Section 3.5.6 explains the procedures for certifying contractor invoices and reconciling disputes over invoices.

3.5.1 Verify Personnel Charges

Personnel costs can constitute a large portion of total removal costs and, therefore, should be carefully documented. It is the responsibility of the cleanup contractor Response Manager to place cleanup personnel in positions best suited to the needs of the removal, and to ensure that the field clerk supplies the information documenting personnel use for the day on the EPA Form 1900-55. The OSC or other designated on-site personnel can then verify personnel charges by routinely recording which personnel are on-site, the duties that they perform, and the length of time that they remain on site. This information can then be cross-referenced with the personnel charges provided on the EPA Form 1900-55. The reliability and effectiveness of this technique depends on consistent and thorough documentation of personnel information. Chapter 5 elaborates on how to log on-site personnel activity for the purpose of verifying hours (regular and overtime) and costs for all on-site personnel. The personnel log will also help determine if hours overlap for personnel who serve in more than one labor category and verify that these hours are charged to the appropriate labor category. One way an overlap can occur is when one person fulfills the responsibility of more than one labor category a day. For example, one person may be a heavy equipment operator in the morning and a recovery

technician in the afternoon. The second way an overlap can occur is when a chemist performs the duties of a recovery technician. The chemist should then be billed at the technician rate. Occasionally, the hours are inappropriately charged at the chemist rate. The ERCS User's Manual discusses overtime and labor categories in more detail. It is also important for the OSC to maintain a record of personnel hours spent in the hot zone in order to verify charges for contractor work hours in protective gear.

3.5.2 Verify Equipment Charges

The OSC can ensure the cost efficiency of a removal by ensuring that equipment charges are correct, and by understanding the ERCS equipment rate schedule and adjusting work practices accordingly. The ERCS contracts establish hourly, daily, weekly, and monthly rate schedules for the majority of necessary on-site equipment. OSC decisions on equipment standby and the length of a working day will dictate which rates are used and how much the government is charged. The new ERCS contracts have been improved to include certain cost reimbursable equipment and to exclude infrequently used items. Rented equipment is only reimbursed for the cost of rental. Equipment rental and usage is tracked using the EPA Form 1900-55. Also, the acquisition cost is now limited to \$1,000 for items not directly charged to a project. The ERCS Users' Manual discusses these expenditures in more detail.

To verify that equipment charges are accurate, the OSC or other designated on-site personnel must prepare a record of what equipment was on site, the length of time that each piece of equipment remained on site, and whether or not it was used. See Chapter 5 for mechanisms to record equipment usage.

For more information on the ERCS equipment rate schedule, consult the appropriate ERCS DPO or the EPA Headquarters or Regional Contracting Officer.

3.5.3 Verify Expendable Materials

It is difficult to monitor usage of expendable materials; in addition, most verification methods require more time and money than are saved in correcting errors in contractor charges. To verify contractor charges for these materials, periodic inventories of expendable materials can be performed. The OSC should include a requirement in the Delivery Order for the ERCS contractor to provide a pre-removal inventory of expendable materials and subsequent updated inventories on a regular basis. The OSC log should also note the arrival of significant quantities of expendable items delivered to the site. For further information on Delivery Orders, see Chapter 4 of the EPA ERCS Contracts Users' Manual.

3.5.4 Verify Subcontractor Charges

The OSC or other designated on-site personnel must verify all ERCS subcontractor charges claimed on the EPA Form 1900-55 by carefully checking subcontractor invoices. Under the ERCS contracts, the authority of the Government to consent or not consent to the award of any subcontract rests with the OSC. Before consenting to the award of a subcontract, the OSC should ascertain how and why a particular subcontractor was selected, including measures taken to ensure competition and reasonable prices. The OSC must also ensure that the ERCS contractor has fully documented the subcontractor selection process. The ERCS contractors are required by the terms of their contract to obtain a minimum of three bids (if practicable), and to present to the OSC the results of such competition, the record of price negotiations, and the rationale for selecting every subcontractor. It is imperative that the contractor clearly and fully document the rationale for the selection of the subcontractor. This is especially important if the subcontractor selected is not the lowest bidder. The OSC cannot direct the contractor to use a specific subcontractor; however, the OSC does have the authority to veto the choice of subcontractor. The OSC must ensure that all subcontracting decisions are fully documented.

by the contractor. The OSC must also document his/her approval of the subcontractor; and his/her evaluation of the contractor's use of subcontractors and the subcontractor selection process.

3.5.5 Sign EPA Form 1900-55

After the OSC has verified all the charges listed on the EPA Form 1900-55, the form is signed by the OSC. If a discrepancy exists, the OSC and contractor representative should try to reconcile the difference. If the difference is irreconcilable, the OSC notes the disputed cost on the EPA Form 1900-55. As a last resort, the OSC can always refuse to sign an EPA Form 1900-55 if it cannot be reconciled with the OSC's cost documentation. The difference may then be referred to the EPA Headquarters Contracting Officer.

Sometimes, actual costs may not be available and estimated costs will be listed on the EPA Form 1900-55. In such cases, the amounts should be clearly marked as estimates, with "await bill" annotated next to the estimated charge.

The RCMS provides a computerized EPA Form 1900-55 using the charges supplied by the ERCS contractor. The information is entered into the computer by the OSC-designated on-site personnel. The individual who prepared the 1900-55 should be identified on the form, along with his/her affiliation. This information may be used in future invoice reconciliation.

3.5.6 Certify Invoices

Each month, the ERCS contractor prepares a detailed invoice (bill) of the actual costs incurred on site, a copy of which is sent to the OSC. Contractor invoices submitted for payment must be certified promptly by the OSC. Note, however, that certification of a invoices implies only that the services have been rendered. Certification does not represent that invoiced costs are accurate, complete, or reasonable. The ERCS contractor

must submit a written justification with each invoice stating that the costs are accurate, complete, or reasonable. In addition, the ERCS contractor must submit a written justification with any invoice submitted more than ninety days after completion of the Delivery Order.

If there is a portion of the invoice that cannot be reconciled with the contractor, the OSC should certify the invoice except for the disputed amount, draft a memorandum stating the disputed amount, and forward the invoice and memorandum to the Financial Management Division (FMD) in Research Triangle Park, N.C. A copy of the invoice and memorandum should be forwarded immediately to the Contracting Officer, who can attempt to resolve the problem or authorize FMD to withhold payment. An example of a memorandum entitled "Documenting Questionable Charges," is shown in Exhibit 3-2. For further information, refer to the ERCS Contracts Users' Manual.

The RCMS provides a computerized mechanism for the preparation of ERCS invoice reports which include a detailed daily project cost report, the daily project cost summary, the equipment usage report, the project summary report, the subcontractor/cost material log, and the awaiting subcontractor bill report. The format of the invoice reports produced by the RCMS has been approved by PCMD and will be very similar to invoice reports submitted by the ERCS contractors. The RCMS allows the OSC to review a "draft" invoice prior to receiving an invoice from the contractor. The OSC then knows what should be charged to the site from actual on-site estimates. This standardization of invoice report formats should greatly increase the efficiency of the invoice verification and delivery order verification process. General procedures for certifying ERCS invoices are presented in the EPA ERCS Contracts Users' Manual.

EXHIBIT 3-2**Documenting Questionable Charges - Sample Memorandum****MEMORANDUM****SUBJECT:** Contract No. _____Delivery Order No. _____
(if applicable)

Contractor Name _____ Date _____

Invoice No. _____

FROM: _____
On-Scene Coordinator
Region _____**TO:** Accounts Payable Branch
Contracts Section (MD-32)
Office of Financial Management
Research Triangle Park, NC 27711

I have reviewed the subject invoice for payment and have attached it with the signed certification statement. However, I recommend that only partial payment of \$ _____ be made on this invoice, based upon my review and comparison of the amounts charged with those accepted on the Reports of Daily Services (EPA Forms 1900-55). The following individual items are questioned.

| <u>Date</u> <u>(from 1900-55)</u> | <u>Line</u> <u>Item</u> | <u>Amount</u> <u>Invoiced</u> | <u>Amount</u> <u>Disputed</u> | <u>Amount</u> <u>Recommended</u> <u>for Payment</u> |
|--------------------------------------|----------------------------|----------------------------------|----------------------------------|---|
| Totals | _____ | _____ | _____ | _____ |

Attached is my explanation for all disputed amounts. On the basis of this, I recommend that \$ _____ be withheld from the total amount paid.

Attachments: Certified invoice
Explanation of charges not accepted

cc: Contracting Officer
Contractor

CHAPTER 4

COST RECOVERY

The on-site observation and documentation of site conditions, response activities, and response costs are important for cost recovery actions brought against responsible parties. Essential evidence required for a cost recovery action includes, but is not limited to:

- o evidence of responsibility of the defendant(s) for the presence of the hazardous substance;
- o evidence of a release or substantial threat of release of a hazardous substance;
- o proof that the removal action taken was consistent with the National Oil and Hazardous Substances Contingency Plan (NCP); and
- o proof of costs of the removal action taken by EPA.

In the role of overseeing the on-scene cost management system, the OSC is responsible, in particular, for the last three kinds of evidence. In addition, the OSC must ensure that the costs are reasonable and allowable to the project. The OSC plays a critical role in observing, documenting, and preserving the above evidence.

4.1 JUSTIFY THAT REMOVAL ACTIONS ARE CONSISTENT WITH THE NCP

The OSC is responsible for justifying that removal actions are consistent with the NCP. This determination, and evidence of a release or threat of a release of a hazardous substance, are usually established in the Action Memo authorizing or documenting authorization (if using the 50K authority) of the removal action. Any changes in the

scope or nature of the removal activities must be corroborated in at least one of several documents such as the OSC/Site Log, POLREPs, or a ceiling increase request memorandum. Section II-8 of the Superfund Removal Procedures Manual (Revision #3) provides more detail on justifying consistency with the NCP (40 CFR 300.65).

4.2 ACCOUNT FOR COSTS ACTUALLY INCURRED

The Financial Management System (FMS), which is maintained by the Financial Management Division (FMD), is the Agency's official source for fund obligation and disbursement data. Accordingly, the FMS is the primary source of evidence for costs actually incurred at a removal site for cost recovery actions. However, not all costs currently incurred at a site are identified in the FMS. It is possible that removal costs which are obligated and paid prior to the establishment of a site ID (SSID) will not be assigned to the specific site. Other costs may not appear on FMS reports until after invoicing or payment.

The cost information kept on site by the OSC is, therefore, necessary to determine if additional cost information needs to be collected directly from other sources. It is important to emphasize again that on-site cost documentation is the primary source of information as to how and why costs were incurred at a removal site.

4.3 ENSURE THAT COSTS ARE REASONABLE AND ALLOWABLE TO THE PROJECT

The reasonableness of all charges paid under any delivery order is the responsibility of the Contracting Officer, not the OSC. It is also the Contracting Officer who determines if costs are allowable under terms of the contract. The OSC has no authority to negotiate prices or rates, nor to determine if costs are allowable. However, in the interest of good cost management practice, the OSC should be cognizant of costs allowable under the ERCS contract and associated rates.

CHAPTER 5

COST DOCUMENTATION

Successful cost projection, cost control, and cost recovery depend on accurate documentation of important daily site information. The cost management system in this manual focuses on required information necessary to fulfill cost management goals. It does not establish required forms that must be used to document this information. This chapter outlines the six types of cost information that must be documented at every Superfund removal site. It also provides alternative documentation techniques.

The OSC must ensure that the cost management and related information, detailed in Section 5.1, is documented every day when appropriate. The method used to document the information must be consistent from day to day at any one site. The method of documentation, however, may vary from site to site or Region to Region. Each OSC is responsible for ensuring that the required information is documented, and that a Documentation Index is prepared, thus indicating where to retrieve each type of information (see Section 5.3).

5.1 INFORMATION TO BE DOCUMENTED

As mentioned above, the on-scene removal cost management system requires specific removal site information for effective cost management. The on-scene removal cost management system also records and preserves the information for easy retrieval. The following required information is necessary for proper cost documentation:

- o chronology of events and decisions;
- o entry and exit of personnel and equipment;

- o contractor work planned/authorized and contractor work accomplished;
- o contractor costs;
- o site conditions, such as weather; and
- o cumulative intramural and extramural project costs.

On-site information can be documented by the OSC and/or by other personnel who perform the specific job functions of cost manager, and safety and security officer(s).

The on-scene cost manager documents the chronology of events and decisions, contractor work planned/authorized and accomplished, contractor costs, cumulative project costs, and prepares the Documentation Index (see Section 5.3 for the Index). The on-scene safety and security officer(s) document site conditions, and entry and exit of personnel and equipment. Each type of on-site information is discussed in the following sections. A matrix outlining the cost documentation system is presented in Exhibit 5-1.

5.1.1 Chronology of Events and Decisions

A chronology must be kept of dates and times of all key activities and decisions made on site. This record includes the types of actions taken and why they were taken; problems encountered on-site and how they were resolved; activities carried out by on-site personnel; all meetings with EPA managers, the contractor, elected officials, and the public; and any accidents or exposure incidents. A chronology serves as a basis for the pollution report (POLREP) and an account of site activities for EPA management, Congress, and the public. The chronology becomes a historical record that may be useful for future removals. It also serves to verify contractor charges, and for recovery actions, that work completed was not inconsistent with CERCLA and the NCP (40 CFR 300.65).

5.1.2 Entry and Exit of Personnel and Equipment

The names of all personnel and equipment entering and exiting the removal site as well as the dates and time of entry and exit must be recorded. This information is

instrumental in verifying TAT and ERCS personnel and ERCS equipment usage. In addition, entry and exit information of personnel in the hot zone is recommended for personnel safety and verifying protective equipment usage. In the event of exposure, the recorded entry and exit information can help to identify personnel who might have been exposed, and for what length of time.

5.1.3 Contractor Work Planned and Contractor Work Accomplished

The contractor work authorized by the OSC must be recorded along with the subsequent detail of what work the contractor accomplished. When recorded, this information can assist in reconciling discrepancies and help to verify the Contractor Cost Report (EPA Form 1900-55). In addition, this information serves as a historical record of daily cleanup progress.

5.1.4 Contractor Costs

A recorded daily account of all costs incurred by the cleanup contractor, including labor, equipment costs, and subcontractor charges, is required in the ERCS contract. Daily cost information is a tool for cost tracking; it helps the OSC recognize an impending need to increase contractor obligation monies or increase the project ceiling. This information can also uncover inefficient or excessive use of labor and equipment. Daily cost information is instrumental in cost recovery actions.

5.1.5 Site Conditions

It is important to keep a record of weather, ground conditions, and other physical conditions at a removal site in order to account for delays and other on-site problems resulting from such conditions. Information regarding site conditions can also assist in protecting the health and safety of on-site personnel. Examples of relevant site conditions that should be documented include a lightning storm, which requires that the

use of heavy equipment cease until the storm has passed causing project delays, or topographical conditions that create physical hazards that should be noted by all personnel.

5.1.6 Cumulative Project Costs

All on-site project costs, including those incurred by the ERCS contractor, EPA, other Federal agencies, and TAT must be recorded and documented on a daily basis. Maintaining a daily accounting of project costs provides data that can be used in future cost projections. Because the OSC will have a current record of project costs, daily tracking may allow early identification of the need to increase the project ceiling; this in turn may reduce the chance of incurring delays and costs associated with work stoppage while awaiting approval of a request for a project ceiling increase or exemption from the \$2 million ceiling.

5.2 OPTIONS FOR DOCUMENTING COSTS

The information described in Section 5.1 can be recorded and preserved through a variety of cost documentation tools. The preferred documentation tool is the computerized Removal Cost Management System (RCMS). Training on Version 3.0 is available on a regular schedule and as requests are made by the Regions. Use of the RCMS fulfills the requirements to document contractor costs, EPA costs, and cumulative project costs. Using the RCMS to document this information can help standardize documentation among sites nationwide, and make it easier to retrieve accurate, consistent information for future projects, cost recovery, ERCS contract definitization, and audits.

The RCMS, however, does not document all of the required information noted in Section 5.1. The forms listed and described below are currently used at many removal actions:

- o OSC Log/Site Log
- o Detailed Daily POLREP
- o Entry and Exit Logs

- o Work Report
- o Cleanup Contractor's Daily Cost Report -- EPA Form 1900-55
- o Incident Obligation Log

Of these forms, only the Contractor Daily Cost Report, the EPA Form 1900-55, is currently required to be completed. The other forms are optional mechanisms to record required site information. EPA Regions and OSCs have the flexibility to either use the forms presented herein or design their own forms to best meet the needs of cost management and documentation at a particular site. To reiterate, documentation of the information presented in Section 5.1 is required, while the particular documentation techniques presented below (except the EPA Form 1900-55) are optional.

5.2.1 OSC Log/Site Log

The OSC Log/Site Log is a legally defensible record with detailed daily entries which discusses, for example, work accomplished at a CERCLA removal site, meetings held or attended, and decisions made. In some cases, the OSC maintains a personal log book, and a separate site log is maintained by the OSC or designee. The site log will only contain information concerning this particular site; the OSC log may also contain personal records and information regarding other sites. A detailed log can fulfill the following documentation requirements: chronology of events and decisions, entry and exit of personnel and equipment, contractor work planned/authorized and accomplished, and site conditions. An example of an entry in a detailed log is presented in Exhibit 5-2.

It is important to note that for enforcement purposes, pages must not be torn out of the bound log book. This is particularly important for cost recovery and for litigation if the State or EPA pursue criminal prosecution.

5.2.2 Detailed Daily POLREP

Pollution Reports (POLREPs) must be prepared at the initiation and closing of an action and be prepared daily, weekly, or as the need arises due to changes at the site. A POLREP can include extensive information about activities on a removal site. A POLREP can also be used to fulfill the following documentation requirements: chronology of events and decisions, contractor work planned/authorized and accomplished, site conditions, and cumulative project costs. An example of a detailed POLREP is presented in Exhibit 5-3. For further guidance on POLREPs, refer to section III-G-1 of the Removal Procedures Manual (Revision #3).

5.2.3 Entry and Exit Log

The Site Entry and Exit Log is a record of the entry and exit times of all personnel and equipment on site. Any person or equipment leaving the site for any reason, regardless of the duration of time, must be logged out. A Hot Zone Entry and Exit Log may be used to record all personnel entering and exiting the hot zone and the level of protection worn. These logs satisfy the requirement for documenting the entry and exit of personnel and equipment. An example of a personnel and equipment Site Entry and Exit Log is presented in Exhibit 5-4, and a Hot Zone Entry and Exit Log is shown in Exhibit 5-5.

5.2.4 Work Report

The Work Report can be used to document contractor work planned/authorized as well as the contractor work accomplished. The Work Report can be used prospectively to detail work to be performed by the contractor, with a summary of work completed added at the end of the day. It can also be used to summarize oral work orders given to the contractor by the OSC and to identify what work was performed. When used prospectively, the written plans for the day can help avoid misunderstandings concerning OSC expectations and instructions. If the Work Report is used prospectively, it is suggested that the

contractor sign the order. An explanation can also be provided to identify problems and changes in work planned/authorized and work accomplished. A Work Report does not have to be prepared daily if a particular phase or type of work is to be performed over a period of days (e.g., drum staging). An example of a Work Report is presented in Exhibit 5-6.

5.2.5 Contractor Cost Report -- EPA Form 1900-55

The EPA Form 1900-55, which fulfills the requirement to document cleanup contractor costs, is the only mandatory form in the cost documentation system. The EPA Form 1900-55 includes contractor personnel costs, equipment charges, expendable materials, and subcontractor charges. RCMS can be used to complete the required EPA Form 1900-55 in several ways, depending on the length of the removal. For removal actions lasting three days or less, it may be preferable to utilize RCMS in the office after the field activity has been completed. In longer removal actions, daily use of RCMS in the field is recommended. Data entry will usually be performed by the ERCS contractor, either directly or through a contractor-specific software interface. A copy of an EPA Form 1900-55 is presented in Exhibit 5-7. Note that the 1900-55 module of the RCMS can generate this form, as shown in Exhibit 5-7; OSCs are strongly urged to use the software to document cleanup contractor costs each day.

5.2.6 Incident Obligation Log

The Incident Obligation Log (IOL) is used to record cumulative costs. It provides daily tracking of all costs that are counted toward the total project ceiling. It also tracks the limits for individual cost categories (e.g., ERCS, TAT, EPA, and other Federal agencies). An example of an Incident Obligation Log is presented in Exhibit 5-8. The columns on the left list the cumulative expenditures for each category (ERCS, support contractors, other Federal agency personnel, and EPA direct and indirect costs). Daily costs are listed in the smaller boxes under the appropriate categories. Cumulative costs

are listed in the larger boxes. Another column also provides space for other costs incurred (e.g., State and local agency assistance, utilities, materials). The columns to the right list daily expenditures, cumulative expenditures, and funds remaining on a daily basis. As stated previously, the RCMS will generate a computerized IOL, which can be much easier and less time consuming than generating the IOL manually.

5.3 FULFILLING COST DOCUMENTATION REQUIREMENTS

The OSC is required to document each of the six types of site information at a removal action. The documentation method can incorporate any of the six forms presented here or other forms that the OSC considers effective (but always including the EPA Form 1900-55). The OSC or the designated on-site cost manager must prepare a Cost Documentation Index similar to the one in Exhibit 5-9. This Index serves to ensure that each piece of required information has been documented. It also identifies the documentation method used, and the location of the information. Without a Cost Documentation Index, important site information that has been carefully documented may be difficult to find, and therefore may be rendered useless.

5.4 THE SITE FILE KIT

The file structure used at each removal site must be consistent, well-organized, and routinely maintained. Ideally, the site file structure should be consistent with the Regional file system. The OERR Office of Program Management issued a suggested organizational system for Regional CERCLA files. This file structure, however, appears to be more detailed than would be necessary for a command post file at a removal action. However, the amount of detail is dependent on the actual removal. For example, if the removal is simple and does not require months of on-site work, then the file structure will be simple. If the removal action is expected to extend for months (a large drum removal), then a more detailed filing system will assist the OSC and the cost manager to

remain organized during the project and once it is completed.

The Office of Program Management is developing a Site File Kit, outlining a consistent documentation structure for all removal sites. Until the kit is finalized, however, the on-scene cost manager should consider utilizing the abbreviated file structure presented below. The file subjects are:

- o Cost Documentation Index
- o Initial Action Memorandum
- o Request for Project Ceiling Increase Action Memorandum
- o Entry and Exit Logs

- Site
 - Personnel
 - Equipment
 - Hot Zone
 - Personnel
 - Equipment

- o EPA Form 1900-55
- o Incident Obligation Log (IOL)
- o OSC/Site Log
- o POLREP
- o Site Safety Plan (and modifications)
- o Work Report

Optional information for the site files include, but are not limited to the following:

- o Air Monitoring Data (daily, if applicable)
- o Sampling Plan
- o Sampling Data Reports
- o Quality Assurance Plan
- o Community Relations Plan
- o Justification memos for subcontractors
- o TDDs and Special Project TDDs (if applicable)

The cost manager will be responsible for maintaining files on a daily basis and maintaining the files in the Regional office. Maintaining all relevant documents in the above orderly file system will facilitate the incorporation of the command post files into the Regional office files. Complete, well-organized Regional files will aid in cost recovery and facilitate review by the Inspector General's Office. The file system will also provide readily accessible documents if an OSC is later called to testify on a particular removal action.

Exhibit 5-1 COST DOCUMENTATION MATRIX

| Required Information | Frequency | Detail of Necessary Information | Reasons for Need | Options for Documenting Costs |
|---|----------------|---|--|---|
| Chronology of events and decisions | Daily | <p>Times and dates of all actions taken, all decisions made:</p> <ul style="list-style-type: none"> What actions were decided upon and why Problems encountered on site and how they were resolved Activities carried out by all personnel on site All meetings: management, with contractor, with elected officials, with public Accidents/exposure | <ul style="list-style-type: none"> Accountability to EPA management, Congress, the public Documentation in support of Cost Recovery (verification that actions taken were consistent with CERCLA and the RCRA) Historical records -- useful for future removals Documentation in case of liability Documentation to certify contractor invoices | <ul style="list-style-type: none"> OSC Log Detailed Daily POLREP |
| Entry and exit of personnel and equipment | Daily | <ul style="list-style-type: none"> The date, time and name of all personnel and equipment that enter and exit the site | <ul style="list-style-type: none"> Verification of EPA Form 1900-55 Documentation to certify invoices Documentation to verify non-ERCS costs Documentation to assist in site safety and security | <ul style="list-style-type: none"> OSC Log Entry/Exit Log |
| Contractor work planned/authorized and contractor work accomplished | Per work stage | <ul style="list-style-type: none"> What contractor work was ordered on site What contractor work was carried out and how it was accomplished | <ul style="list-style-type: none"> Reconciliation of discrepancies Verification of EPA Form 1900-55 Documentation to certify invoices Historical record of daily cleanup progress | <ul style="list-style-type: none"> POLREP OSC Log Work Report |
| Contractor costs | Daily | <ul style="list-style-type: none"> Daily account of all costs incurred by contractor (salaries, equipment costs, subcontractor costs, etc.) | <ul style="list-style-type: none"> Required by contract Documentation for on-going cost projection Documentation for cost recovery Highlights any inefficient or excessive use of resources | <ul style="list-style-type: none"> EPA Form 1900-55 |
| Site conditions | Daily | <ul style="list-style-type: none"> Weather, ground conditions | <ul style="list-style-type: none"> Documentation to justify delays, problems Information to assist in health and safety of on site personnel | <ul style="list-style-type: none"> POLREP OSC Log |
| Cumulative project costs | Daily | <ul style="list-style-type: none"> All project costs (EPA, FAF, ERCS, etc.) accrued to date | <ul style="list-style-type: none"> Information to assist in cost projection -- to prevent delays and increased costs associated with work stoppage while ceiling is increased or \$1 million exemption is approved | <ul style="list-style-type: none"> Incident Obligation Log Daily POLREP (with detailed cost accounting) |

Exhibit 5-2 EXAMPLE OF AN OSC LOG

OSC LOG
ABC Drum Site
November 12, 1984

0600 2 TATs arrive on site.

Site conditions - Partly cloudy skies, temperature 55°F.
Rain has stopped - forecast calls for clear, dry weather
and moderate temperatures (high 50's).

0610 OSC arrives on site.

0630 ERCS Contractor, Wastebusters, Inc. personnel arrived
on site. On site contractor personnel included:

- 1 Foreman
- 1 Chemist
- 1 Engineer
- 3 Level Two technicians
- 3 Equipment Operators
- 4 Level One laborers

Contractor equipment brought to site:

- 1 Backhoe Cat 225
- 2 Front End Loaders LC 45

0645 OSC reviews scope of work for the day with contractor
foreman and TAT. Work to be completed by contrac-
tor today:

- Continue excavation and staging of drums
- Continue sampling of staged drums
- Continue excavation of contaminated soil
near lagoon
- Begin bulking of liquids removed from ware-
house

TAT will monitor Wastebuster's work and help with drum
sampling

Level B protection to be used in work with drum ex-
cavation, staging and sampling. Level C protection to be
used in work with excavation of soil and liquid bulking.

0800 Wastebuster's field clerk arrives on site.

0900 State geologist, Herb Denning, arrives on site. OSC dis-
cusses progress of state groundwater sampling ef-
forts. Denning indicates that preliminary results
should be available within 2 to 3 weeks.

1000 State geologist leaves site.

1015 Tank truck from Firesign Incinerators arrives on site.
Bulking of liquids from warehouse begins.

1030 Soil excavation operation stops due to backhoe getting
stuck in mud. Local tow truck operator called to
pull out backhoe.

1130 Backhoe freed from mud, excavating operation continues.

Exhibit 5-2 (Continued)

5-13

1200 All personnel break for lunch

1230 Site work begins again.

1300 OSC calls Tom Bradley, Headquarters Contracting Officer, regarding a discrepancy on the 1900-55 form. Discrepancy involves ERCS contractor overcharging for Level B protection. Tom says he will look into the matter and get back to OSC.

1415 Tank truck leaves site with 5,000 gallons bulked liquid. Liquids are organic solvents. All drum waste has now been removed from warehouse except for 10 drums of PCB liquid. Awaiting results from sampling to select disposal option for PCB material.

1500 OSC receives call from Jim Squires, EPA Enforcement Attorney. Jim says that RP threatening to deny continued EPA access to site if his demands are not met. OSC to meet with Enforcement staff 11/13 to discuss matter.

1600 Phase I of soil excavation complete. 156 cu yds of soil excavated today. 1180 cu yds total excavated. OSC instructs Wastebusters to put one of the front end loaders on standby until soil sample testing results are received.

- 34 -

1730 Work ceases. Work completed today:

- Excavated and staged 200 more drums
- Sampled 75 drums
- Bulked and transported off site 3,000 gal. organic solvents.
- Excavated 156 cu yds. soil. Phase I excavation complete.

1800 All Wastebusters personnel leave site.

1830 OSC and both TATs leave site.

- 35 -

EXHIBIT 5-3**EXAMPLE OF A DETAILED POLREP****POLREP**

DATE: NOVEMBER 12, 1986

POLREP NUMBER: 10

NAME OF REMOVAL ACTION: ABC DRUM SITE, ANYTOWN, NEW JERSEY

OSC: BRUCE SPRINGSTEEN, REGION II

SITUATION

- A. Rain showers last night created muddy conditions onsite. Weather today was partly cloudy, temperatures in the 50's. Removal Action continues.
- B. Personnel on-scene on 11/11/86:
 - ERCS contractor - 13
 - TAT - 2
 - EPA - 1 (OSC)
- C. RP has threatened to deny EPA access to site if his demands concerning site conditions are not met.

ACTIONS TAKEN:

- A. Excavated 156 cu. yds soil near lagoon this date. 1780 cu yds total have been excavated to date. Phase 1 of soil excavation now complete. OSC awaiting soil sample results to determine if further excavation is needed.
- B. 3,000 gallons of organic solvents from warehouse were bulked and shipped off site to Firesign Incinerators. All drum waste from the warehouse has now been removed except for 10 drums of PCB liquids.
- C. 200 additional drums were excavated and staged. Drum sampling continues. Estimate that 700 drums remain buried.
- D. OSC met with State geologist to discuss the state's groundwater sampling efforts. Preliminary results should be available within 2 - 3 weeks.

Date 4/88

EXHIBIT 5-3, (continued)**FUTURE PLANS:**

- A. Continue drum excavation, staging and sampling.
- B. OSC and Regional enforcement attorney to meet 11/13 to discuss access. RP's actions have not impeded any cleanup work to date. Enforcement will seek court order granting EPA access to site if necessary.
- C. Await soil sample results to determine if further excavation of soil near lagoon is needed.
- D. Evaluate disposal options for hazardous waste on site, including 10 drums of PCB still in the warehouse.

COST TO DATE

| | <u>TOTAL PROJECT CEILING</u> | <u>COMMITTED/ OBLIGATED</u> | <u>REMAINING CEILING</u> |
|--------------------|--------------------------------------|---------------------------------|------------------------------|
| Cleanup contractor | \$ 500,000 | \$ 250,000 | \$ 250,000 |
| TAT | 50,000 | 35,000 | 15,000 |
| NCLP Analytical | | | |
| Service | 100,000 | 100,000 | -0- |
| EERU | 35,000 | 35,000 | -0- |
| Intramural | | | |
| Direct | 45,000 | 22,000 | 23,000 |
| Indirect | 90,000 | 40,000 | 50,000 |

OTHER INFORMATION

Removal action expected to be completed within two weeks, as scheduled.

EXAMPLE OF A PERSONNEL AND EQUIPMENT SITE ENTRY AND EXIT LOG

5-16

Exhibit 5-5

EXAMPLE OF A HOT ZONE ENTRY AND EXIT LOG

| HOT ZONE ENTRY AND EXIT LOG | | | |
|-----------------------------|-----|-----------|---------------------|
| Work Site | | | Date |
| TIME | | PERSONNEL | LEVEL OF PROTECTION |
| In | Out | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Comments | | | |

Date 4/88

Exhibit 5-6
EXAMPLE OF A WORK REPORT

| WORK REPORT | |
|---|--|
| Work Site | Work Period From / / To / / |
| Contractor Contractor Rep. | OSC |
| Work Planned/Authorized | Work Accomplished |
| Equipment Planned/Authorized | Equipment Used |
| Comments | |
| Contractor Signature | OSC Signature |
| Date | Date |

*** DRAFT *** DRAFT *** DRAFT *** DRAFT *** DRAFT *** DRAFT ***
HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR COST REPORT PAGE 3

| | | |
|--|---------------------------------|--------------------------|
| US ENVIRONMENTAL PROTECTION AGENCY SITE NAME: LAKE WINNEMUCCA | CONTRACTOR: ACME ENTERPRISES | CONTRACT # 68-01-1959 |
|--|---------------------------------|--------------------------|

| | | |
|---|---------------------------------|------------------|
| CONTRACTOR UNIT RATE MATERIALS EPA STANDARD FORM 1900-55 | DELIVERY ORDER # 6801-03-195 | DATE 09/12/87 |
|---|---------------------------------|------------------|

| 18. MATERIAL | 19. PURPOSE | 20. UNITS | 21. QUANTITY | 22. UNIT COST | 23. COST |
|--|----------------|--------------|---|---------------------|-------------|
| ERCS CONTRACTOR 0001: ACME ENTERPRISES | | | | | |
| DISP. AIR FILTERS | PRSNL. PROT. | FILTERS | 0.0 | 23.500 | 0.00 |
| VISQUEEN | COVERING | ROLLS | 0.0 | 50.000 | 0.00 |
| | | | | | ===== |
| | | | | | 0.00 |
| 24. TOTAL U.R. MATERIAL COST TO DATE: \$ 3152.00 | | | 25. TOTAL U.R. MATERIAL COST FOR TODAY: \$ 0.00 | | |
| TOTAL ERCS COSTS TO DATE: \$ 35914.84 | | | TOTAL DAILY ERCS COSTS: \$ 4097.48 | | |

* * * DRAFT * * * DRAFT * * * DRAFT * * * DRAFT * * * DRAFT * * * DRAFT * * *
HAZARDOUS SUBSTANCE RESPONSE FUND CONTRACTOR COST REPORT PAGE 2

| | | | | | | | |
|--|--|--|--|---------------------------------|--|--------------------------|--|
| US ENVIRONMENTAL PROTECTION AGENCY SITE NAME: LAKE WINNEMUCCA | | | | CONTRACTOR: ACME ENTERPRISES | | CONTRACT # 68-01-1959 | |
| CONTRACTOR EQUIPMENT REPORT EPA STANDARD FORM 1900-55 | | | | DELIVERY ORDER # 6801-03-195 | | DATE 09/12/87 | |

| 9. EQUIPMENT ITEM | 10. EQ ID | 11. TOT DAY | 12. HOURS | 13. WORK STATUS | 14. RATE | 15. COSTS | |
|--|-----------------|-------------------|---------------------|-----------------------|-------------|-----------------|------------------|
| | | | | | | TODAY'S COST | TOTAL TO DATE |
| ERCS CONTRACTOR 0001: ACME ENTERPRISES | | | | | | | |
| ----- | | | | | | | |
| 041:TRUCK VAC 3500 GAL | 2001 | 12 | 9.0 | REG | DL | 307.50 | 2460.00 |
| Mileage Charge | | | 22.0 Miles @ | \$ 0.21/Mile | | 4.62 | |
| 057:TRAIL EMERGENCY RES | 5001 | 10 | 9.0 | REG | DL | 142.00 | 851.50 |
| 063:TRAIL OFF APPR 8X40 | 5002 | 10 | 9.0 | REG | DL | 87.00 | 520.50 |
| 076:BACKHOE CAT 225 | 2003 | 11 | 9.0 | REG | DL | 577.00 | 4039.00 |
| 086:FRT END LD CAT 966 | 5003 | 10 | 9.0 | REG | DL | 673.50 | 4039.50 |
| 205:CYANIDE MONITOR | 2003 | 12 | 9.0 | REG | DL | 62.00 | 494.50 |
| 298:COMPUTER PORTABLE-PC | 5555 | 12 | This item is RENTED | | | | |
| | | | 9.0 | REG | DL | 31.00 | 247.50 |
| G and A Charge | | | | | | 3.10 | |
| 800:SWIMMING POOL | 6666 | 11 | 9.0 | REG | DL | 15.50 | 107.50 |
| | | | | | | 1903.22 | |

| | |
|--|---|
| 16. TOTAL EQUIPMENT COST TO DATE: \$ 12827.59 | 17. TOTAL EQUIPMENT COST FOR TODAY: \$ 1903.22 |
|--|---|

EXHIBIT 5-8

INCIDENT OBLIGATION LOG

Page 1

From: 09/01/87 To: 09/11/87

Site Name: LAKE WINNEMUCCA

Project Ceiling:

09/01/87 750000

09/11/87 1000000

| Date/ TTD | 1900-55 Costs | Await Bill Change | EPA Costs | O. Fed Costs | TAT Costs | Add'nl Costs | Total Costs | Balance |
|--------------|------------------|-------------------------|--------------|-----------------|--------------|-----------------|----------------|---------|
| 09/01/87 | 4037 | 176 | 2004 | 900 | 724 | 500 | 8341 | |
| | 4037 | 176 | 2004 | 900 | 724 | 500 | 8341 | 741659 |
| 09/02/87 | 2183 | 165 | 1494 | 2050 | 958 | 0 | 6849 | |
| | 6220 | 341 | 3498 | 2950 | 1141 | 500 | 15190 | 734810 |
| 09/03/87 | 3766 | 0 | 2952 | 1966 | 936 | 873 | 10493 | |
| | 9986 | 341 | 6450 | 4916 | 2077 | 1373 | 25683 | 724317 |
| 09/04/87 | 4501 | 0 | 2782 | 1928 | 1126 | 0 | 10337 | |
| | 14487 | 341 | 9232 | 6844 | 3203 | 1373 | 36020 | 713980 |
| 09/05/87 | 3045 | 258 | 1464 | 1437 | 874 | 342 | 7419 | |
| | 17532 | 599 | 10696 | 8281 | 4076 | 1715 | 43440 | 706560 |
| 09/06/87 | 1555 | 0 | 594 | 997 | 454 | 127 | 3727 | |
| | 19087 | 599 | 11290 | 9278 | 4530 | 1842 | 47167 | 702833 |
| 09/07/87 | 1483 | 0 | 704 | 997 | 454 | 145 | 3782 | |
| | 20570 | 599 | 11994 | 10275 | 4984 | 1987 | 50949 | 699051 |
| 09/08/87 | 3595 | 0 | 1606 | 1877 | 1427 | 0 | 8505 | |
| | 24165 | 599 | 13600 | 12152 | 6025 | 1987 | 59454 | 690546 |
| 09/09/87 | 2973 | 0 | 1516 | 1995 | 1021 | 0 | 7504 | |
| | 27138 | 599 | 15116 | 14147 | 7046 | 1987 | 66958 | 683042 |
| 09/10/87 | 4003 | 0 | 1516 | 1995 | 874 | 0 | 8388 | |
| | 31141 | 599 | 16632 | 16142 | 7919 | 1987 | 75346 | 674654 |
| 09/11/87 | 3085 | -423 | 1516 | 1995 | 544 | 0 | 6717 | |
| | 34226 | 176 | 18148 | 18137 | 8463 | 1987 | 82063 | 917937 |

Exhibit 5-9

EXAMPLE OF A COST DOCUMENTATION INDEX

| COST DOCUMENTATION INDEX | |
|--|--|
| Work Site _____ | Period of Removal Action _____ |
| Location _____ | OSC _____ |
| INFORMATION REQUIRED | DOCUMENTATION TECHNIQUE |
| Chronology of Events and Decisions | <input type="checkbox"/> OSC Log <input type="checkbox"/> POLREP <input type="checkbox"/> Other, Specify: _____ |
| Entry and Exit of Personnel and Equipment | <input type="checkbox"/> OSC Log <input type="checkbox"/> Site Entry/Exit Log <input type="checkbox"/> Hot Zone Entry/Exit Log <input type="checkbox"/> Other, Specify: _____ |
| Contractor Work Planned/ Authorized and Contractor Work Accomplished | <input type="checkbox"/> POLREP <input type="checkbox"/> OSC Log <input type="checkbox"/> Work Report <input type="checkbox"/> Other, Specify: _____ |
| Contractor Costs | <input type="checkbox"/> EPA Form 1900-55 (mandatory) |
| Site Conditions | <input type="checkbox"/> POLREP <input type="checkbox"/> OSC Log <input type="checkbox"/> Other, Specify: _____ |
| Cumulative Project Costs | <input type="checkbox"/> Incident Obligation Log <input type="checkbox"/> POLREP <input type="checkbox"/> Other, Specify: _____ |

APPENDIX A

**INITIAL ACTION MEMORANDUM FORMAT FOR REMOVALS
LESS THAN 12 MONTHS AND \$2 MILLION**

Source: Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Appendix 6.

MODEL INITIAL ACTION MEMORANDUM FOR REMOVALS
LESS THAN TWELVE MONTHS AND \$2 MILLION

Below is a recommended format for OSCs to follow in preparing their removal Action Memoranda. While use of this model format is not mandatory, OSCs must cover all of the topics presented in the model in order to demonstrate that the incident meets the removal criteria of section 300.65 of the NCP and that all actions in the scope of work are consistent with both CERCLA, as amended by SARA, and the NCP. SARA raised the statutory limitations for removal actions from six months and \$1 million to twelve months and \$2 million. SARA also established a new requirement that all removal actions contribute, to the extent practicable, to the efficient performance of any long-term remedial action performed by EPA, the State, the locality, or a private party. OSCs must include in the Action Memorandum a discussion of how the proposed removal action contributes to the long-term efficiency of ongoing or future remedial actions, whether Federal, State or PRP. In addition, OSCs should attach to their removal Action Memoranda all appropriate ATSDR Health Advisories.

The structure of the recommended format is a representative sample of the type of Action Memoranda frequently prepared by the Regions. In addition to this sample format, OSCs are encouraged to use the Decision Rationale (Appendix 5) as supplemental guidance in preparing a request for removal actions. When it is initially known that the removal action will exceed the \$2 million limitation, OSCs should prepare an initial Action Memorandum and \$2 million exemption request in accordance with Appendix 7.

I. HEADING

DATE: Month/Day/Year

SUBJECT: Request for Removal Action Approval at the Site, City, State
ACTION MEMORANDUM

Site/Spill-ID:

Category of Removal: All removal actions are considered time-critical unless otherwise indicated (e.g., classic emergency or non-time-critical)

National Significance: Indicate whether the removal is of national significance

FROM: On-Scene Coordinator

TO: Regional Administrator (or to the file, thru the RA, if the response is initiated under the OSC's \$50K authority and will not exceed that cost)

THRU: Regional Division Director, as appropriate

II. ISSUE

Briefly state that the site meets the criteria for initiating a removal action under section 300.65 of the NCP and is anticipated to require less than twelve months and \$2 million for completion.

III. BACKGROUND

The background section should contain information on the location of the site, the incident characteristics (including the history of the site, general character of the site, and issues relevant to waste management), summary of quantity and types of substances present, State and local authorities' role, and actions to date, including previous and current actions to abate threat. Each of these information points is described below.

A. Site Description

1. Describe the site's physical location.

Give distances from nearest populations and points of reference, as appropriate. Also state the population size. For example, a school is within one-quarter of a mile and there are 1,000 residences within a mile of the site; ten of these residences are adjacent to the site. The area is mainly suburban residential with some industrial areas.

Describe the areas adjacent to the incident or site in terms of nearby vulnerable or sensitive populations, habitats and natural resources. For example, the site is adjacent to wetlands and a tributary to the river flows nearby. Describe how sensitive areas, such as floodplains, could impact the removal.

Describe any areas protected by statute, such as parks, historic sites, and sensitive ecosystems and cite the statute. This may include areas such as the New Jersey Pinelands, wetlands areas, or wild and scenic rivers.

2. Discuss the general character of the site.

Describe the current use of the site (e.g., active facility, vacant lot, or recreational area). Also describe the nature and type of the facility or vessel, as well as the business activities undertaken at the site that may have contributed to the incident (for example, a sanitary landfill that accepted industrial wastes or a midnight dump of PCB wastes).

Describe any existing structures, measures, or conditions that would either mitigate or accelerate the release of any materials on-site (e.g., an unstable dike, a temporary containment system, adverse weather conditions, site security, fencing, condition of containers and similar situations). State whether the release is widespread and/or is migrating rapidly.

Include any pertinent information on the site's owners, past and present. This should reflect information on whether the current or previous owners contributed to the conditions on-site. Note whether this is the first removal at the site or is a restart.

3. Indicate NPL status.

Indicate whether the site is on the NPL. If the site is on the NPL, then state when remedial action is expected. If the site has not been promulgated on the NPL, indicate whether it has received an HRS rating, is likely to be proposed or already has been proposed for inclusion on the NPL. Indicate if the site has appeared on the NPL, but that no remedial action is to be taken (e.g., because of removal or PRP response).

4. Provide supporting documentation.

Pictures, diagrams, maps, and/or sketches are encouraged if they substantiate OSC findings. They may be included as attachments or incorporated into the text. This documentation may help to substantiate the threat at the site.

B. Incident/Release Characteristics

Discuss the history of the incident or release. Describe the type of incident that occurred (e.g., a classic emergency) and why it occurred. For example, a storage lagoon overflowed due to heavy rains. Be sure to list all of the site's key problem areas (e.g., drums, bulked liquids, lagoons, or contaminated soils).

Describe the exact location of the incident at the site. For example, the release occurred at an overflowing lagoon in the south corner of the site. Include the time and date (if known) of the incident. State whether the release is new or has just recently been discovered. Also describe when and how the incident was discovered. For example, drums washed up on the beach and were discovered by park rangers.

C. Quantities and Types of Substances Present

1. Describe the hazardous substances in terms of categories or classes of chemicals.

List all materials known on-site at the time of the approval request and indicate whether these materials are hazardous substances or are pollutants or contaminants. Sections 104(a)(1)(A) and (B) of CERCLA state the different criteria that are used depending on whether the release is a hazardous substance or a pollutant or a contaminant (NOTE: pollutants and contaminants must pose an imminent and substantial danger in order to elicit CERCLA response). Also highlight any substances of critical concern (e.g., PCBs, dioxins). If this information is provided

in chart form, identify in column format the substance, quantity, location (e.g., well #1) and existing standards (e.g., DWEL), if there are any, for comparison. Later discussion of threats should refer to, not duplicate, the information on this chart.

Describe briefly the results of the sampling (e.g., most affected residences showed elevated levels of trichloroethylene in tap water) and give estimates of quantities of the classes of materials if they are available (for example, 220,000 ppm of PCBs in the soil). Indicate whether they are "reportable quantities" as set forth in 40 CFR 302.

CERCLA's definition of "hazardous substance" in section 101(14) includes substances designated or toxic pollutants listed in sections 311(b)(2)(A) and 307(a) of the Federal Water Pollution Control Act; any hazardous air pollutant listed under section 112 of the Clean Air Act; and substances with respect to section 7 of the Toxic Substances Control Act and section 3001 of the Solid Waste Disposal Act. In addition, categories of hazardous substances are listed in Appendix VIII of RCRA, "Hazardous Constituents" and in 40 CFR Table 302.4 "List of Hazardous Substances and Reportable Quantities."

2. Describe the sampling methodology.

Briefly describe the sampling methodology as well as methods for maintaining consistency, reliability and quality control. Mention who performed the data collection and the lab analysis (e.g., EPA, contractor, local health authorities). Indicate the time frame in which the samples were taken.

D. State and Local Authorities' Roles

1. Briefly describe State and local actions to date.

State whether State and/or local governments requested EPA assistance and the name of specific agencies/officials making the request. Summarize any "first-responder" or other actions these or other agencies have taken to protect public health and the environment (e.g., evacuated individuals within one square mile, posted police to restrict public access). Provide the dates for and indicate the effectiveness of such actions. Indicate State/local cooperation in assessing the release and threat and whether State and local government personnel remain at the site.

2. Summarize the potential for continued State and local response.

Describe any actions State and local government personnel are currently taking and their anticipated future roles. Examples of roles could be providing site security or hookups to the water main. Indicate whether the State mechanism for obtaining funding is available, is depleted or will require delaying the response for an unacceptable period of time given the threat. Indicate whether the State/locality will fund these activities or require funding under a letter contract. Indicate whether the State is going to lead the response and enter into

a Cooperative Agreement. This is most likely to occur for non-time-critical removals at NPL sites, although Cooperative Agreements also may be executed for removals at non-NPL sites. Indicate if the State or locality wants to be reimbursed for participation in response actions under SARA section 123.

E. Other Actions to Date

1. Discuss any previous actions to abate threat.

Describe any Federal or privately-sponsored activities that have been performed and are not previously described. Give the dates, costs, and effectiveness of such actions. Indicate if response has been initiated under OSC's \$50,000 authority. Actions to abate the threat may include advice from the locality advising residents not to drink their water. Other actions may include the provision of bottled water.

2. Discuss any current actions to abate threat.

Any Federal or privately-sponsored activities that are currently underway (but not previously discussed) should be described. This information should include estimated costs and completion dates of these activities. Discuss how proposed EPA actions will interrelate with current activities.

IV. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

Section 300.65(b)(2) of the NCP combines three previously distinct types of Superfund responses into the category of "removals": immediate removals, planned removals and initial remedial measures. Removals address two distinct requirements. The first is a threat to the public health, welfare and environment. The second requirement is the availability of non-CERCLA response mechanisms. The following threats are considered in determining the appropriateness of a removal action:

- . Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain;
- . Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- . Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
- . High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- . Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;
- . Threat of fire or explosion;

The availability of other appropriate Federal or State response mechanisms to respond to the release;

Other situations or factors which may pose threats to public health or welfare or the environment.

OSCs should make sure that their Action Memoranda discuss the ways in which the release meets these NCP criteria. Sections A and B below provide some specific examples of the type of material to include.

A. Threats to Public Health and Welfare

Describe the threats to public health and welfare. List all of the current and potential threats, starting with the most serious, that adversely affect human health or welfare (e.g., fire/explosion, drinking water contamination). Identify any human exposure that already has occurred, the kind of exposure (e.g., inhalation, ingestion, dermal contact) and the exposure pathway (e.g., food supply, water supply, indoor air pollution). Describe any reports of illness, injury or death that appear to be linked to the exposure. Be as specific as possible about the number of individuals exposed, the proximity of sensitive populations (e.g., hospitals, schools), the geographic area affected and whether exposure was acute or chronic. Also describe any anticipated exposure and whether it is imminent.

Describe all actual and potential impacts on human health and welfare. Describe any known effects of human exposure to the chemical released (e.g., nausea, respiratory dysfunction, cancer) and any actual or projected manifestations of these effects.

Compare amounts of hazardous substances shown to background or health standards as appropriate. If a chart is provided in Section III.C.1, it should be referenced, not duplicated, here. It may be necessary to consult policy on compliance with other environmental statutes. This policy may be found in OSWER directive #9234.0-05, "Interim Guidance on Compliance with Applicable or Relevant and Appropriate Requirements" (July 9, 1987). If written ATSDR or other health advice is given, include this as an attachment to the Action Memorandum. The health advice should also be referenced in the discussion. If health advice is given orally, it should be documented in the Action Memorandum.

B. Threats to the Environment

Describe threats to the environment. List all the current and potential threats, starting with the most serious, that adversely affect the environment (e.g., damage to ecosystem, animals, ground water). Identify any natural resource or environmental damage that already has occurred and the extent of exposure (e.g., acute or chronic). Indicate whether there have been reports of deaths of flora or fauna (e.g., fish kills). If so, state how much environmental damage has occurred (e.g., 20,000 acres of wetlands contaminated or 1 million fish killed). Discuss potential damage to the environment and indicate a time frame within which damage will occur if response actions are not taken.

Discuss all actual and potential impacts on the affected area. Describe any anticipated exposure and whether it is imminent. Indicate whether the release threatens endangered species, critical wetlands, or other resources protected under law. State whether natural resources trustees have been notified.

V. ENFORCEMENT

The purpose of this section is to assist in making the determination of the potential for response action by PRPs. This information should be referenced here as "see attachment" and placed on a separate page entitled "Enforcement Sensitive." This section includes information on the enforcement strategy (summarized), the status of notice letters or 106 orders and/or negotiations, the available enforcement authority, potentially responsible parties, previous enforcement actions, the probability of recovering costs and the recommended enforcement strategy if there is no strategy currently in place. This section also should contain information on the potential for responsible party response. In some Regions, this section of the Action Memorandum may be prepared by enforcement personnel.

A. Enforcement Strategy

1. Briefly summarize the enforcement strategy.

Summarize the enforcement strategy for notifying, negotiating with, and litigating against responsible parties. Indicate whether the State or Federal enforcement attorneys are actively pursuing informal negotiations, are actively pursuing litigation, or have decided to postpone or forgo litigation (e.g., no enforcement actions are currently underway or the RP has agreed to a cleanup). Describe what enforcement actions are planned (e.g., negotiations or Administrative Orders).

If an enforcement strategy has not yet been developed, describe the strategy that is recommended by the Regional enforcement attorney. For example, discuss any decisions to pursue Federally-funded action or continue litigation or negotiations. Indicate whether concurrence to proceed with removal is conditional. If so, state the conditions.

2. Briefly summarize the enforcement actions.

Indicate if litigation is proceeding or is contemplated. Cite under what statutory authority the action will be or is being taken (e.g., RCRA section 7003, CERCLA).

B. Status of Enforcement Actions

1. Potentially responsible parties.

Describe the number and types of potentially responsible parties (e.g., transporters and owners or operators of production facilities or waste disposal facilities). Indicate whether the PRP is known. If a site has one or two primary responsible parties, they may be named. If a search has been completed, the results should be summarized.

Indicate if the PRP has taken action. If so, mention whether or not the action was adequate. Indicate whether the PRP is financially capable and likely to act within a time frame that adequately protects public health and the environment. Cite, do not repeat, descriptions of PRP actions discussed previously in the request.

Describe what efforts are being undertaken to obtain additional PRP response. Discuss the status of the potentially responsible party search. Mention if search efforts are underway and whether there is time to continue the search before response must begin. If not, indicate that PRP search will continue as the removal proceeds and a PRP may later take over removal actions. Describe the attempts that have been made to locate PRPs (e.g., oral inquiries both on and off site). Include whether the PRP has been notified (e.g., orally contacted, written follow-up).

Give the date(s) that notice letter(s) were sent and a summary of the responses of the recipients (e.g., the PRPs have agreed to clean up the site or the PRPs have denied involvement at the site). If negotiations are underway, describe the activities under discussion.

2. Discuss the probability of recovering costs.

Estimate the solvency of the major responsible parties. Evaluate the ability to obtain the necessary actions in a timely fashion through litigation. This should be included if it explains why actions are being requested of the EPA when responsible parties are financially able to undertake these actions.

VI. PROPOSED ACTIONS AND COSTS

The purpose of this section is to provide guidelines for presenting information on proposed and alternative actions, estimated costs and the project schedule. Also included is information on how the action addresses the threat.

A. Proposed Actions

1. Describe the proposed actions and what they will accomplish.

Describe the specific tasks involved and the results sought by the removal action as they pertain to the threat(s) discussed in Section III of this model Action Memorandum. For example, "The primary objective of the proposed action is the mitigation of the direct contact threat to nearby residents by provision of alternate potable water supplies to the affected homes." The NCP provides examples of types of action that may be taken for this type of incident. The list in the NCP is not exhaustive, however, and actions are not limited to these examples.

Describe the procedures to be undertaken in the proposed actions. For example, "A two-phase removal action is planned. The first phase is the installation of activated carbon columns. The second phase is the

installation of water mains and hookups to public water supply." Describe any impediments to the proposed action (e.g., lack of public acceptance or problems with access).

If off-site storage, treatment or disposal is proposed, indicate the amount or type of waste(s) requiring off-site treatment or disposal, the facility selected and the extent to which the substance can be treated. In cases where the type or amount of waste is not available for inclusion in the Action Memorandum, indicate the intent to comply with all requirements of the Off-site Policy. For detailed information on the Off-site Policy, OSCs should refer to Chapter IV of the Superfund Removal Procedures manual.

Indicate whether any further information is needed before all response actions can be decided (e.g., sampling to address ground-water or drinking water contamination or a RCRA permit and compliance verification are needed for selecting the disposal option).

State why proposed actions are appropriate for this situation and explain the rationale for choosing this option. Describe the technical feasibility and probable effectiveness of the proposed action. Address intermedia relationships, temporary versus long-term solutions, and adverse impacts.

2. Provide a discussion of how the proposed actions will contribute to the efficient performance of long-term remedial actions.

For all removals, discuss how, to the extent practicable given the exigencies of the situation, the proposed actions will contribute to the efficient performance of long-term remedial actions. The primary objective of this provision is to avoid the need for removal restarts. The following questions should be considered when preparing this discussion:

- . What is the long-term cleanup plan for the site?
- . Which threats will require attention prior to the start of the long-term action?
- . How far should the removal action go to assure that the threats are adequately abated?
- . Is the proposed removal action consistent with the long-term remedy?

For additional guidance on this requirement, see OSWER directive #9360.0-131, "Guidance on Implementation of the 'Contribute to Remedial Performance' Provision."

If no remedial plans are available, describe how proposed removal actions are consistent with the remedial actions that would be expected to be undertaken based on site conditions. Discussion should be based

on best professional judgement using the information available. In-depth analyses of remedial actions are not required. For example, indicate that the proposed actions will address near-term threats that may require attention prior to the start of remedial action as well as more urgent threats. Also discuss how, wherever appropriate, removal actions will provide a suitable foundation for future remedial actions. In general, removal actions should not interfere with future remedial actions, nor should proposed actions eliminate any feasible remedial alternatives.

3. Describe the project schedule.

Give the time frame needed to stabilize or clean up the site and include how quickly response can begin. Give the estimated period of performance. State whether the proposed action will exceed twelve months. (Note: Previous actions count toward the twelve-month and \$2 million limits.) If the twelve-month clock has started, state when the twelve months end.

If the proposed action is expected to exceed the twelve-month statutory limit, then a twelve-month exemption request approved by the RA should be included in this removal Action Memorandum. If post removal site control will be required, the State or other authority must provide it. Indicate a commitment to provide post removal site control.

4. Describe alternative actions considered.

Describe other actions considered (e.g., providing hookups to city water instead of providing bottled water, alternatives to off-site disposal). Briefly describe the technical feasibility and probable effectiveness of each alternative. Address intermedia relationships, temporary versus long-term solutions, and possible adverse impacts. State any impediments to each alternative, e.g., public acceptance or access to the site. Give the estimated period of performance for alternative actions. State how quickly response can begin. State the duration of the alternative. State whether it will exceed twelve months. For example, "The first phase should be completed within approximately 3 weeks of initiation of the action. The second can be expected to be completed by July 1988." Give further detail for each component of the phases. State whether post removal site control will be required and who would provide it or if this would be an impediment to cleanup or stabilization of the site.

B. Estimated Costs

Detail the estimated total project ceiling and an itemized breakdown of the following cost categories that comprise that ceiling. This includes extramural cleanup costs allowed under the RA's \$2,000,000 authority (which consist of cleanup contractor costs, letter contracts with States and other commercial entities, and site-specific IAGs); TAT costs; EPA intramural costs; National Contract Lab Program analytical costs; and ERT/REAC costs. If applicable, include the cost of previous removal actions taken at the site. An example is provided on the following page.

Summary of Costs

Estimated Costs

Extramural Costs

| | |
|---|---|
| Extramural Cleanup Contractor (includes ERCS, Mini-ERCS, Subcontractors, Letter Contracts, Alternative Technology Contracts, IAGs with other Federal agencies, etc.; contingency can be 10-20%.) | \$711,450 (15% contingency) 125,550 837,000 |
| TAT costs | 10,000 |
| CLP analytical services | 20,000 |
| ERT/REAC | 20,000 |
| Subtotal Extramural Cost | 887,000 |
| 15% Contingency of above costs (round to nearest thousand) | 133,050 |
| Total Extramural Cost | \$1,020,050 |

Intramural Costs

| | |
|--|-------------|
| Intramural Direct Labor (HQ, ERT and Region) | 19,000 |
| Intramural Indirect Costs* | 33,000 |
| TOTAL PROJECT CEILING ESTIMATE | \$1,072,050 |

If CERCLA funds have been obligated for past actions, then indicate the obligations:

| | |
|-------------------------------------|-------------|
| TOTAL PROJECT CEILING REQUESTED | \$1,072,050 |
| Previous Removal (1982) Obligations | 200,000 |
| TOTAL CEILING TO DATE | \$1,272,050 |

A statement of obligations is necessary because these costs count toward the \$2 million limit.

* Formula for calculating indirect costs:

| | | | | |
|---------------------------------------|---|--|---|----------------|
| Region-Specific Indirect Cost Rate | X | Estimated Regional Direct Labor Hours | = | Indirect Costs |
|---------------------------------------|---|--|---|----------------|

Regional indirect cost rates may be found in the Comptroller Policy Announcement No. 87-15, "New Method for Determination of Indirect Costs in Superfund Removal Project Ceilings" (7/15/87).

VII. EXPECTED CHANGE IN THE SITUATION SHOULD NO ACTION BE TAKEN OR ACTION DELAYED

Describe any expected changes in the situation should no action be taken or action be delayed. Include a description of a worst-case scenario should no action be taken. These changes may include:

- . Spread in scope of contamination. For example, the ground-water contaminant plume may spread through a larger area.
- . Change in nature of contamination. For example, incompatible substances may come into contact with each other, producing added threats such as fire/explosion or formation of poisonous gases such as hydrogen cyanide.
- . Increased threat to human health and the environment if action is delayed or denied. For example, the contaminant plume may soon reach drinking water wells or phosphine gas or other poisonous gas may be produced.
- . Additional response actions required if the initial response is delayed or denied resulting in a longer, more costly removal. For example, the drums will deteriorate further, leaking additional contaminants into the ground.

VIII. IMPORTANT POLICY ISSUES (Only as necessary and applicable)

If applicable, include a separate section on important policy issues that are significant to this request. These issues may include:

- . Provision for cost sharing (cost sharing is applicable only in a small number of cases and applies only to removals at NPL sites that were publicly operated, either by a State or a political subdivision thereof, at the time of a release and a remedial action is ultimately undertaken at the site)
- . The division of responsibilities among Federal and/or State agencies
- . Off-site disposal availability and compliance with OSWER's Off-site Policy
- . Compliance with other environmental statutes
- . Special coordination needs/issues of national significance (e.g., dioxin) and similar issues
- . Noncontiguous sites (if multiple locations are recommended by the Region for consideration as one site, give justification for such consideration).

Issues should be fully explained and include a discussion on the efforts being made to resolve the issue and/or decisions that must be made before a resolution is reached.

IX. RECOMMENDATION

The purpose of this section is to briefly present the Region's recommendations, rationale and projected costs for the action. For example, "Because conditions at the site meet the NCP section 300.65(b)(2) criteria for a removal, I recommend your approval of the proposed removal action. The total project ceiling is \$X, of which \$Y are for extramural cleanup contractor costs (Regional allowance). I recommend your approval to initiate response actions due to the nature of the threat described herein."

Approved: _____ Date: _____
(Name and Title)

Disapproved: _____ Date: _____
(Name and Title)

Attachments

APPENDIX B

**INITIAL ACTION MEMORANDUM FORMAT FOR REMOVALS
REQUESTING A \$2 MILLION EXEMPTION**

Source: **Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Appendix 7.**

MODEL OF AN INITIAL REMOVAL MEMORANDUM REQUESTING
A \$2 MILLION EXEMPTION

The purpose of Appendix 7 is to provide OSCs with a sample format that can be easily followed to prepare an initial removal Action Memorandum that includes a request for an exemption from the \$2 million limitation. While the use of this model format is not mandatory, OSCs must cover all the topics presented in the model in order to demonstrate that the incident meets the removal criteria of section 300.65 of the NCP and that all actions in the scope of work are consistent with both CERCLA, as amended by SARA, and the NCP. OSCs must also document that the threat meets the exemption criteria set forth in CERCLA, as amended by SARA.

The CERCLA Amendments added a new independent exemption that permits an exemption to the statutory limitations on cost and duration whenever a continued removal action is determined to be otherwise appropriate and consistent with remedial action to be taken. This new exemption (consistency exemption) applies to NPL sites and sites proposed for the NPL, and to non-NPL sites only in limited circumstances. SARA also established a new requirement that all removal actions contribute, to the extent practicable, to the efficient performance of any long-term remedial action performed by EPA, the State, the locality or a private party. OSCs must include in the Action Memorandum a discussion of how the proposed removal action contributes to the long-term efficiency of ongoing or future remedial actions, whether Federal, State or PRP. In addition, OSCs should attach to their Action Memoranda all appropriate ATSDR Health Advisories.

The structure of the recommended format is a representative sample of the type of Action Memoranda frequently prepared by the Regions. In addition to this sample format, OSCs are encouraged to use the Decision Rationale (Appendix 5) as supplemental guidance in preparing a request for removal actions.

I. HEADING

DATE: Month/Day/Year

SUBJECT: Request for Removal Action Approval and Exemption from the
\$2 Million Limit at Site, City, State
ACTION MEMORANDUM

Site/Spill-ID:

Category of Removal: All removal actions are considered
time-critical unless otherwise indicated (e.g., classic
emergency or non-time-critical)

National Significance: Indicate whether the removal is of
national significance

FROM: Regional Administrator

TO: Assistant Administrator for Solid Waste and Emergency Response

THRU: Director
Office of Emergency and Remedial Response

ATTN: Director,
Emergency Response Division

II. ISSUE

Briefly state that the site meets the criteria for initiating a removal under section 300.65 of the NCP and one of the two exemptions for exceeding the statutory limits under section 104(c) of CERCLA, as amended. Indicate which of the 104(c) exemptions the site meets. Exemption from the \$2 million statutory limit requires AA, OSWER approval. This authority may be redelegated to the RA on a case-by-case basis.

III. BACKGROUND

The background section should contain information on the location of the site, the incident characteristics (including the history of the site, general character of the site, and issues relevant to waste management), summary of quantity and types of substances present, State and local authorities' role, cleanup timeframe, and actions to date, including previous and current actions to abate threat. Each of these information points is described below.

A. Site Description

1. Describe the site's physical location.

Give distances from nearest populations and points of reference, as appropriate. Also state the population size. For example, a school is within one-quarter of a mile and there are 1,000 residences within a mile of the site; ten of these residences are adjacent to the site. The area is mainly suburban residential with some industrial areas.

Describe the areas adjacent to the incident or site in terms of nearby vulnerable or sensitive populations, habitats and natural resources. For example, the site is adjacent to wetlands and a tributary to the river flows nearby. Describe how sensitive areas, such as flood plains, could impact the removal.

Describe any areas protected by statute, such as parks, historic sites, and sensitive ecosystems and cite the statute. This may include areas such as the New Jersey Pinelands, wetlands areas, or wild and scenic rivers.

2. Discuss the general character of the site.

Describe the current use of the site (e.g., active facility, vacant lot, or recreational area). Also describe the nature and type of the

facility or vessel, as well as the business/activities undertaken at the site that may have contributed to the incident (for example, a sanitary landfill that accepted industrial wastes or a midnight dump of PCB wastes).

Discuss the relevant issues relating to current waste management practices. Describe any existing structures, measures, or conditions that would either mitigate or accelerate the release of any materials on-site (e.g., an unstable dike, a temporary containment system, adverse weather conditions, site security, fencing, condition of containers and similar situations). State whether the release is widespread and/or is migrating rapidly.

Include any pertinent information on the site's owners, past and present. This should reflect information on whether the current or previous owners contributed to the conditions on-site. Note whether this is the first removal at the site or is a restart.

3. Indicate NPL status

Indicate whether the site is on the NPL. If the site is on the NPL, then state when remedial action is expected. If the site has not been promulgated on the NPL, indicate whether it has received an HRS rating, is likely to be proposed or already has been proposed for inclusion on the NPL. Indicate if the site has appeared on the NPL, but that no remedial action is to be taken (e.g., because of removal or PRP response).

4. Provide supporting documentation.

Pictures, diagrams, maps, and/or sketches are encouraged if they substantiate OSC findings. They may be included as attachments or incorporated into the text. This documentation may help to substantiate the threat at the site.

B. Incident/Release Characteristics

Discuss the history of the incident or release. Describe the type of incident that occurred (e.g., a classic emergency) and why it occurred. For example, a storage lagoon overflowed due to heavy rains. Be sure to list all of the site's key problem areas (e.g., drums, bulked liquids, lagoons, or contaminated soils).

Describe the exact location of the incident at the site. For example, the release occurred at an overflowing lagoon in the south corner of the site. Include the time and date (if known) of the incident. State whether the release is new or has just recently been discovered. Also describe when and how the incident was discovered. For example, drums washed up on the beach and were discovered by park rangers.

C. Quantities and Types of Substances Present

1. Describe the hazardous substances in terms of categories or classes of chemicals.

List all materials known on-site at the time of the approval request and indicate whether these materials are hazardous substances or are pollutants or contaminants. Sections 104(a)(1)(A) and (B) of CERCLA state the different criteria that are used depending on whether the release is a hazardous substance or a pollutant or a contaminant (NOTE: pollutants and contaminants must pose an imminent and substantial danger in order to elicit CERCLA response). Also highlight any substances of critical concern (e.g., PCBs, dioxins). If this information is provided in chart form, identify in column format the substance, quantity, location (e.g., well #1) and existing standards (e.g., DWEL), if there are any, for comparison. Later discussion of threats should refer to, not duplicate, the information on this chart.

Describe briefly the results of the sampling (e.g., most affected residences showed elevated levels of trichloroethylene in tapwater) and give estimates of quantities of the classes of materials if they are available (for example, 220,000 ppm of PCBs in the soil). Indicate whether they are "reportable quantities" as set forth in 40 CFR 302.

CERCLA's definition of "hazardous substance" in section 101(14) includes substances designated or toxic pollutants listed in sections 311(b)(2)(A) and 307(a) of the Federal Water Pollution Control Act; any hazardous air pollutant listed under section 112 of the Clean Air Act; and substances with respect to section 7 of the Toxic Substances Control Act and section 3001 of the Solid Waste Disposal Act. In addition, categories of hazardous substances are listed in Appendix VIII of RCRA, "Hazardous Constituents" and in 40 CFR Table 302.4 "List of Hazardous Substances and Reportable Quantities."

2. Describe the sampling methodology.

Briefly describe the sampling methodology as well as methods for maintaining consistency, reliability and quality control. Mention who performed the data collection and the lab analysis (e.g., EPA, contractor, local health authorities). Indicate the time frame in which the samples were taken. Samples must be recent enough to substantiate an imminent threat in accordance with the original CERCLA section 104(c) exemption.

D. State and Local Authorities' Roles

1. Briefly describe State and local actions to date.

State whether State and/or local governments requested EPA assistance and name the specific agencies/officials making the request. Summarize any "first-responder" or other actions these or other agencies have taken to protect public health and the environment (e.g., evacuated

individuals within one square mile, posted police to restrict public access). Provide the dates for and indicate the effectiveness of such actions. Indicate State/local cooperation in assessing the release and threat and whether State and local government personnel remain at the site.

2. Summarize the potential for continued State and local response.

Describe any actions State and local government personnel are currently taking and their anticipated future roles. Examples of roles could be providing site security or hookups to the water main. Indicate whether the State mechanism for obtaining funding is available, is depleted or will require delaying the response for an unacceptable period of time given the threat. Indicate whether the State/locality will fund these activities or require funding under a letter contract. Indicate whether the State is going to lead the response and enter into a Cooperative Agreement. This is most likely to occur for non-time-critical removals at NPL sites, although Cooperative Agreements also may be executed for removals at non-NPL sites. Indicate if the State or locality wants to be reimbursed for participation in response activities under SARA section 123.

E. Other Actions to Date

1. Discuss any previous actions to abate threat.

Describe any Federal or privately-sponsored activities that have been performed and are not described previously. Give the dates, costs, and effectiveness of such actions. Indicate if response has been initiated under OSC's \$50,000 authority. Actions to abate the threat may include advice from the locality advising residents not to drink their water. Other actions may include the provision of bottled water.

2. Discuss any current actions to abate threat.

Any Federal or privately-sponsored activities that are currently underway (but not previously discussed) should be described. This information should include estimated costs and completion dates of these activities. Discuss how proposed EPA actions will interrelate with current activities.

IV. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

In situations where sites are initially found to meet both the NCP section 300.65 removal criteria and one of the two CERCLA section 104(c) exemptions to the statutory limitations, OSCs must demonstrate how the site meets both these requirements. If the site is expected to exceed the statutory limits based on the original 104(c) exemption OSCs should: 1) state in this section that the conditions at the site meet and exceed the 300.65 NCP removal criteria because of the existence of immediate threats and 2) demonstrate in Section V of this document that site conditions meet the original 104(c) exemption requirements. However, for those sites expected to exceed the statutory limits based on the new consistency

exemption, OSCs must: 1) demonstrate in this section how the site meets the NCP section 300.65 removal criteria and 2) demonstrate in Section V of this document how the site meets the 104(c) consistency exemption.

Section 300.65(b)(2) of the NCP combines three previously distinct types of Superfund response into the category "removals": immediate removals, planned removals and initial remedial measures. Removals address two distinct criteria. The first is a threat to the public health, welfare and environment. The second criterion is the availability of non-CERCLA response mechanisms. The following threats are considered in determining the appropriateness of a removal action:

- . Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain;
- . Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- . Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
- . High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- . Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;
- . Threat of fire or explosion;
- . The availability of other appropriate Federal or State response mechanisms to respond to the release;
- . Other situations or factors which may pose threats to public health or welfare or the environment.

OSCs should make sure that their Action Memoranda discuss the ways in which the release meets the NCP Section 300.65(b)(2) criteria. Sections A and B below provide some specific examples of the type of material to include.

A. Threats to Public Health and Welfare

Describe the threats to public health and welfare. List all of the current and potential threats, starting with the most serious, that adversely affect human health or welfare (e.g., fire/explosion, drinking water contamination). Identify any human exposure that already has occurred, the kind of exposure (e.g., inhalation, ingestion, dermal contact) and the exposure pathway (e.g., food supply, water supply, indoor air pollution). Describe any reports of illness, injury or death that appear to be linked to the exposure. Be as specific as possible about the number of individuals exposed, the proximity of sensitive populations (e.g.,

hospitals, schools), the geographic area affected and whether exposure was acute or chronic. Also describe any anticipated exposure and whether it is imminent.

Describe all actual and potential impacts on human health and welfare. Describe any known effects of human exposure to the chemical released (e.g., nausea, respiratory dysfunction, cancer) and any actual or projected manifestations of these effects.

Compare amounts of hazardous substances shown to background or health standards as appropriate. If a chart is provided in Section III.C.1, it should be referenced, not duplicated, here. It may be necessary to consult the policy on compliance with other environmental statutes. This policy may be found in OSWER directive #9234.0-05, "Interim Guidance on Compliance with Applicable or Relevant and Appropriate Requirements (July 9, 1987). If written ATSDR or other health advice is given, include this as an attachment to the Action Memorandum. The health advice should also be referenced in the discussion. If health advice is given orally, it should be documented in the Action Memorandum.

B. Threats to the Environment

Describe threats to the environment. List all the current and potential threats, starting with the most serious, that adversely affect the environment (e.g., damage to ecosystem, animals, ground water). Identify any natural resource or environmental damage that already has occurred and the extent of exposure (e.g., acute or chronic). Indicate whether there have been reports of deaths of flora or fauna (e.g., fish kills). If so, state how much environmental damage has occurred (e.g., 20,000 acres of wetlands contaminated or 1 million fish killed). Discuss potential damage to the environment and indicate a time frame within which damage will occur if response actions are not taken.

Discuss all actual and potential impacts on the affected area. Describe any anticipated exposure and whether it is imminent. Indicate whether the release threatens endangered species, critical wetlands, or other resources protected under law. State whether natural resources trustees have been notified.

V. EXEMPTION FROM STATUTORY LIMITS

In order to obtain an exemption from the \$2 million limit, the OSC must demonstrate in the Action Memorandum that the site meets one of the two CERCLA section 104(c) exemptions. Describe in detail how site conditions meet the exemption requirements listed below. In order to be granted an exemption, site conditions must either meet exemption A or B below. Include a description of worst-case scenarios to help substantiate the need for action. Be sure to note and include as attachments any appropriate ATSDR health advice memoranda or other data that substantiate the need to exceed the \$2 million limitation. If the site meets the new consistency exemption, then OSCs also must demonstrate in Section IV of this document how the site meets the NCP section 300.65 criteria for initiating a removal action.

A(i). There is an Immediate Risk to Public Health, Welfare or the Environment

The key word here is immediate. This discussion should focus on how soon the public or the environment will be at risk. Describe site conditions that constitute an immediate risk. Indicate all hazardous substances involved and define the immediacy of the risk (e.g., nearby residents will be exposed within two weeks). State whether immediate risk is to public health, welfare, or the environment, or a combination. If a health risk is present, describe affected populations and their proximity to the site. If an environmental risk is involved, describe the nature of the threat. If there is a way to determine how quickly the public may be threatened by an increasing threat (e.g., modelling), describe how soon the public will be at risk. Indicate any weather conditions that may exacerbate site conditions. Cite all supporting documentation, for example, ATSDR health advice.

A(ii). Continued Response Actions are Immediately Required to Prevent, Limit, or Mitigate an Emergency

The key word here is emergency. Describe the conditions that are considered emergencies and explain why response actions must continue beyond \$2 million. Include an explanation of why they are required (e.g., to prevent, limit, or mitigate an emergency) and within what time frame. Explain the consequences if an exemption is not granted and action is not continued. Cite all supporting documentation, as appropriate.

A(iii). Assistance Will Not Otherwise be Provided on a Timely Basis

The key words here are timely response. Emphasize that no other party can provide timely response. Indicate whether the State/locality or other party is willing and financially able to accomplish the required work within the required time frame. Indicate whether Federal or State enforcement actions are expected to result in revenues to support the action requested. Reference the enforcement section or attach enforcement sensitive information. If the site is on the NPL, state when remedial action is planned to begin.

OR

B. Continued Response Actions are Otherwise Appropriate and Consistent with the Remedial Action to be Taken

Describe how the proposed removal action is appropriate and consistent with Federal, State or PRP remedial actions currently underway or planned for the site. For example, discuss how continued removal actions will facilitate future remedial cleanup activities (e.g., consolidation and stabilization of hazardous substances on site) or how continued response will not hinder or interfere with the remedial action to be taken. If no remedial plans are available, describe what remedial actions might be expected to be undertaken given site conditions.

VI. ENFORCEMENT

The purpose of this section is to assist in making the determination of the potential for response action by PRPs. This information should be referenced here as "see attachment" and placed on a separate page entitled "Enforcement Sensitive." This section includes information on the enforcement strategy (summarized), the status of notice letters or 106 orders and/or negotiations, the available enforcement authority, potentially responsible parties, previous enforcement actions, the probability of recovering costs and the recommended enforcement strategy. This section also should contain information on the potential for a non-Federal response.

A. Enforcement Strategy

1. Briefly summarize the enforcement strategy.

Summarize the enforcement strategy for notifying, negotiating with, and litigating against responsible parties. Indicate whether the State or Federal enforcement attorneys are actively pursuing informal negotiations, are actively pursuing litigation, or have decided to postpone or forgo litigation (e.g., no enforcement actions are currently underway or the RP has agreed to a cleanup). Describe what enforcement actions are planned (e.g., negotiations or Administrative Orders).

If an enforcement strategy has not yet been developed, describe the strategy that is recommended by the Regional enforcement attorney. For example, discuss any decisions to pursue Federally-funded action or continue litigation or negotiations. Indicate whether concurrence to proceed with removal is conditional. If so, state the conditions.

2. Briefly summarize the enforcement actions.

Indicate if litigation is proceeding or is contemplated. Cite under what statutory authority the action will be or is being taken (e.g., RCRA section 7003, CERCLA).

B. Status of Enforcement Actions

1. Potentially responsible parties.

Describe the number and types of potentially responsible parties (e.g., transporters and owners or operators of production facilities or waste disposal facilities). Indicate whether the PRP is known. If a site has one or two primary responsible parties, they may be named. If a search has been completed, the results should be summarized.

Indicate if the PRP has taken action. If so, mention whether or not the action was adequate. Indicate whether the PRP is financially capable and likely to act within a time frame that adequately protects public health and the environment. Cite, do not repeat, descriptions of PRP actions discussed previously in the request.

Describe what efforts are being undertaken to obtain additional PRP response. Discuss the status of the potentially responsible party search. Mention if search efforts are underway and whether there is time to continue the search before response must begin. If not, indicate that PRP search will continue as the removal proceeds and a PRP may later take over removal actions. Describe the attempts that have been made to locate PRPs (e.g., oral inquiries both on and off site). Include whether the PRP has been notified (e.g., orally contacted, written follow-up).

Give the date(s) that notice letter(s) were sent and a summary of the responses of the recipients (e.g., the PRPs have agreed to clean up the site or the PRPs have denied involvement at the site). If negotiations are underway, describe the activities under discussion.

2. Discuss the probability of recovering costs.

Estimate the solvency of the major responsible parties. Evaluate the ability to obtain the necessary actions in a timely fashion through litigation. This should be included if it explains why actions are being requested of the EPA when responsible parties are financially able to undertake these actions.

VII. PROPOSED ACTIONS AND COSTS

The purpose of this section is to provide guidelines for presenting information on proposed and alternative actions estimated costs and the project schedule. Also included is information on how the action addresses the threat.

A. Proposed Actions

1. Describe the proposed actions and what they will accomplish.

Describe the specific tasks involved and the results sought by the removal action as they pertain to the threat(s) discussed in Section III of this model Action Memorandum. For example, "The primary objective of the proposed action is the mitigation of the direct contact threat to nearby residents by provision of alternate potable water supplies to the affected homes." The NCP provides examples of types of action which may be taken for this type of incident. The list in the NCP is not exhaustive, however, and actions are not limited to these examples.

Describe the procedures to be undertaken in the proposed actions. For example, "A two-phase removal action is planned. The first phase is the installation of activated carbon columns. The second phase is the installation of water mains and hookups to public water supply." Describe any impediments to the proposed action (e.g., lack of public acceptance or problems with access).

If off-site storage, treatment or disposal is proposed, indicate the amount or type of waste(s) requiring off-site treatment or disposal.

the facility selected and the extent to which the substance can be treated. If off-site treatment or disposal is required, please see the provisions of the off-site disposal policy. In cases where the type or amount of waste is not available for inclusion in the Action Memorandum, indicate the intent to comply with all requirements of the Off-site Policy. For detailed information on the Off-site Policy, OSCs should refer to Chapter IV of the Superfund Removal Procedures manual. State whether the site is to be stabilized or cleaned up, if known.

Indicate whether any further information is needed before all response actions can be decided (e.g., sampling to address ground-water or drinking water contamination or a RCRA permit and compliance verification are needed for selecting the disposal option).

State why proposed actions are appropriate for this situation and explain the rationale for choosing this option. Describe the technical feasibility and probable effectiveness of the proposed action. Address intermedia relationships, temporary versus long-term solutions, and adverse impacts.

2. Provide a discussion of how the proposed actions will contribute to the efficient performance of long-term remedial actions.

For all removals, discuss how, to the extent practicable given the exigencies of the situation, the proposed actions will contribute to the efficient performance of long-term remedial actions, whether Federal, State or PRP. The primary objective of this provision is to avoid the need for removal restarts. The following questions should be considered when preparing this discussion:

- . What is the long-term cleanup plan for the site?
- . Which threats will require attention prior to the start of the long-term action?
- . How far should the removal action go to assure that the threats are adequately abated?
- . Is the proposed removal action consistent with the long-term remedy?

For additional guidance on this requirement, see OSWER directive #9360.0-131, "Guidance on Implementation of the 'Contribute to Remedial Performance' Provision."

If no remedial plans are available, describe how proposed removal actions are consistent with remedial actions that would be expected to be undertaken based on site conditions. Discussion should be based on best professional judgement using the information available. In-depth analyses of remedial actions are not required. For example, indicate that the proposed actions will address near-term threats that may require attention prior to the start of remedial action as well as more urgent threats. Also discuss how, wherever appropriate, removal actions

will provide a suitable foundation for future remedial actions. In general, removal actions should not interfere with future remedial actions, nor should proposed actions eliminate any feasible remedial alternatives.

3. Describe the project schedule.

Give the time frame needed to stabilize or clean up the site and include how quickly response can begin. Give the estimated period of performance. State whether the proposed action will exceed twelve months. (Note: previous actions count toward the twelve-month and \$2 million limits.) If the twelve-month clock has started, state when the twelve months end. If post removal site control will be required, the State or other entity must provide it. Indicate a commitment to provide post removal site control.

If the proposed action is expected to exceed the twelve-month statutory limit, then a twelve-month exemption request approved by the RA should accompany this removal Action Memorandum.

4. Alternative actions considered.

Describe other actions considered, e.g., providing hookups to city water instead of providing bottled water. Briefly describe the technical feasibility and probable effectiveness of each alternative. Address intermedia relationships, temporary versus long-term solutions, and possible adverse impacts. State any impediments to each alternative, e.g., public acceptance or access to the site. Give the estimated period of performance for alternative actions. State how quickly response can begin. State the duration of the alternative. State whether it will exceed twelve months. For example, "The first phase should be completed within approximately three weeks of initiation of the action. The second can be expected to be completed by July 1988." Give further detail for each component of the phases. State whether post removal site control will be required and who would provide it or if this would be an impediment.

B. Estimated Costs

Detail the estimated total project ceiling and an itemized breakout of the following cost categories that comprise that ceiling. This includes extramural cleanup costs allowed under the RA's \$2,000,000 authority (which consist of cleanup contractor costs, letter contracts with States and other commercial entities, and site-specific IAGs); TAT costs; EPA intramural costs; National Contract Lab Program analytical costs; and ERT/REAC costs. If applicable, include the cost of previous removal actions taken at the site. An example is provided on the following page.

Summary of Costs

Estimated Costs

Extramural Costs

| | |
|--|--|
| Extramural Cleanup Contractor (includes ERCS, Mini-ERCS, Subcontractors, Letter Contracts, Alternative Technology Contracts, IAGS with other Federal agencies, etc; contingency can be 10-20%.) | \$1,422,900 (15% contingency) 251,100 <u>1,674,000</u> |
| TAT costs | 20,000 |
| CLP analytical services | 40,000 |
| ERT/REAC | <u>40,000</u> |
| Subtotal Extramural Costs | 1,774,000 |
| 15% Contingency of above costs (round to nearest thousand) | <u>266,100</u> |
| Total Extramural Cost | \$2,040,100 |

Intramural Costs

| | |
|--|--------------------|
| Intramural Direct Costs (HQ, ERT and Region) | 13,000 |
| Intramural Indirect Costs* | <u>90,000</u> |
| TOTAL PROJECT CEILING ESTIMATE | <u>\$2,143,100</u> |

If CERCLA funds have been obligated for past actions, then indicate the obligations:

| | |
|-------------------------------------|--------------------|
| TOTAL PROJECT CEILING REQUESTED | \$2,143,100 |
| Previous Removal (1982) Obligations | <u>200,000</u> |
| TOTAL CEILING TO DATE | <u>\$2,343,100</u> |

A statement of obligations is necessary because these costs count toward the \$2 million limit.

* Formula for calculating indirect costs:

| | | | | |
|--------------------|---|--------------------|---|----------------|
| Region-Specific | | Estimated Regional | | Indirect Costs |
| Indirect Cost Rate | X | Direct Labor Hours | = | |

Regional indirect cost rates are provided in the Comptroller Policy Announcement No. 87-15, "New Method for Determination of Indirect Costs in Superfund Removal Project Ceilings" (7/15/87).

VIII. EXPECTED CHANGE IN THE SITUATION SHOULD NO ACTION BE TAKEN OR ACTION DELAYED

This section may consist of information previously provided in Section V.B., the discussion of how site conditions meet the consistency exemption from the statutory criteria. If this information is provided elsewhere in the Action Memorandum, it should not be repeated here, but should be cited.

Describe any expected changes in the situation should no action be taken or should action be delayed. Include a description of a worst-case scenario that could possibly occur should no action be taken. These changes may include:

- . Spread in scope of contamination. For example, the ground-water contaminant plume may spread through a larger area.
- . Change in nature of contamination. For example, incompatible substances may come into contact with each other, producing added threats such as fire/explosion or formation of poisonous gases such as hydrogen cyanide.
- . Increased threat to human health and the environment if action is delayed or denied. For example, the contaminant plume may soon reach drinking water wells or phosphine gas or other poisonous gas may be produced.
- . Additional response actions required if action is delayed or denied resulting in a longer, more costly removal. For example, the drums will deteriorate further, leaking additional contaminants into the ground.

IX. IMPORTANT POLICY ISSUES (Only as necessary and applicable)

If applicable, include a separate section on important policy issues that are significant to this request. These issues may include:

- . Provision for cost sharing (cost sharing is applicable only in a small number of cases and applies only to removals at NPL sites that were publicly operated, either by a State or a political subdivision thereof, at the time of release and a remedial action is ultimately undertaken at the site)
- . The division of responsibilities among Federal and/or State agencies
- . Off-site disposal availability and compliance with OSWER's Off-site Policy
- . Compliance with other environmental statutes
- . Special coordination needs/issues of national significance (e.g., dioxin) and similar issues

Noncontiguous sites (if multiple locations are recommended by the Region for consideration as one site, give justification for such consideration).

Issues should be fully explained and include a discussion on the efforts being made to resolve the issue and/or decisions that must be made before a resolution is reached.

X. RECOMMENDATION

The purpose of this section is to briefly present the Region's recommendations, rationale, and projected costs for the action. For example, "Because conditions at the site meet the NCP section 300.65(b)(2) criteria for a removal and one of the two CERCLA 104(c) exemptions from the \$2 million limitation as described herein, I recommend your approval of proposed removal action and \$2 million exemption. The total project ceiling is \$X, of which \$Y are for extramural cleanup contractor costs (Regional allowance). I recommend your approval to initiate response actions due to the nature of the threat described herein."

Approved: _____ Date: _____
(Name and Title)

Disapproved: _____ Date: _____
(Name and Title)

Attachments

APPENDIX C

ACTION MEMORANDUM FORMAT FOR REQUESTING AN EXEMPTION FROM 12-MONTH STATUTORY LIMIT

Source: Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Appendix 9.

MODEL EXEMPTION FROM TWELVE-MONTH LIMIT ACTION MEMORANDUM

The purpose of Appendix 9 is to provide OSCs with a sample format that can easily be followed to request an exemption from the twelve-month limitation and to document that the threat meets the exemption requirements set forth in CERCLA, as amended by SARA. The CERCLA Amendments added a new independent exemption that permits an exemption to the statutory limitations on cost and duration whenever a continued removal action is determined to be otherwise appropriate and consistent with remedial action to be taken, whether Federal, State or PRP. This new exemption (consistency exemption) applies to NPL sites and sites proposed for the NPL, and to non-NPL sites only in limited circumstances.

The following model is representative of the memoranda frequently prepared by the Regions, and is intended to be used in situations where an initial Action Memorandum (Appendix 6) has been approved, but an exemption to the twelve-month limitation becomes necessary. OSCs should attach to their Action Memoranda all appropriate ATSDR Health Advisories.

I. HEADING

DATE: Month/Day/Year

SUBJECT: Request for a Twelve-Month Exemption for the Site, City, State
ACTION MEMORANDUM

Site/Spill-ID:

Category of Removal: All removal actions are considered time-critical unless otherwise indicated (e.g., classic emergency or non-time-critical)

National Significance: Indicate whether the removal is of national significance

FROM: On-Scene Coordinator

TO: Regional Administrator

THRU: Regional Division Director, as appropriate

II. ISSUE

Briefly state that continued response actions of a duration greater than twelve months are required and further removal actions cannot be taken unless an exemption to the statutory limitation is granted. Indicate which of the CERCLA section 104(c) exemptions the site meets. Give the date on which response action was initiated at the site and when the twelve-month limit will expire. Estimate how much more time is needed to complete the removal action.

III. BACKGROUND

The primary purpose of this section is to identify the key characteristics of the release in order to lay the foundation for demonstrating that an actual or potential threat to human health or the environment still exists. These characteristics include site location and pre-release use of the site, the type of release and its scope. In compiling this information, OSCs should consider the availability of pictures, diagrams, maps and/or sketches that may assist in describing the site.

A. Incident/Response History

Briefly discuss the background/history of the site including: current conditions at the site (e.g., overflowing lagoon); who initiated action (for example, EPA or the State) and when; the date action was approved in the initial removal Action Memorandum and by whom; the actions initially approved (e.g., temporary relocation or an extent-of-contamination study); actions to date (e.g., staging of drums or provision of bottled water); and actions to be completed, such as final disposal at a RCRA-approved facility.

State whether the site is on the NPL. If the site is on the NPL, then state when remedial action is expected. For sites not on the NPL, indicate whether the site is scheduled to be or has been scored, if proposal for the NPL is expected, or already has occurred.

B. Site Conditions

Briefly describe the problems or conditions at the site that have led to the twelve-month limit exemption request. Examples include adverse weather conditions, newly detected threats, natural disasters or the extensiveness of the work required.

IV. EXEMPTION FROM STATUTORY LIMITS

In order to obtain an exemption from the twelve-month limit, OSCs must demonstrate in the Action Memorandum that the site meets one of the two exemptions in CERCLA section 104(c). Describe in detail how site conditions meet the exemption requirements listed below. In order to be granted an exemption, site conditions must meet either exemption A or B below. Include a description of a worst-case scenario to help substantiate the need for action. Be sure to note and include as attachments any appropriate ATSDR health advice memoranda or other data that substantiate the need to continue removal action beyond twelve months.

A(i). There is an Immediate Risk to Public Health, Welfare, or the Environment

The key word here is immediate. This discussion should focus on how soon the public or the environment will be at risk. Describe site conditions that constitute an immediate risk. Indicate all hazardous substances involved and define the immediacy of the risk (e.g., nearby

residents will be exposed within two weeks). State whether the immediate risk is to public health, welfare, or the environment, or a combination. If a health risk is present, describe affected populations and their proximity to the site. If an environmental risk is involved, describe the nature of the threat. If there is a way to determine how quickly the public may be threatened by an increasing threat (e.g., modelling), describe how soon the public will be at risk. Indicate any weather conditions that may exacerbate site conditions. Cite all supporting documentation, for example, ATSDR health advice.

A(ii). Continued Response Actions are Immediately Required to Prevent, Limit or Mitigate an Emergency

The key word here is emergency. Describe the conditions that are considered emergencies and explain why response actions must continue beyond twelve months. Include an explanation of why they are required (e.g., to prevent, limit, or mitigate an emergency) and within what time frame. Explain the consequences if an exemption is not granted and action is not continued. Cite all supporting documentation, as appropriate.

A(iii). Assistance Will Not Otherwise be Provided on a Timely Basis

The key words here are timely response. Emphasize that no other party can provide timely response. Indicate whether the State, locality or other party is willing and financially able to accomplish the required work within the required time frame. Indicate whether Federal or State enforcement actions are expected to result in revenues to support the action requested. Reference the enforcement section or attach enforcement sensitive information. If the site is on the NPL, state when remedial action is planned to begin.

OR

B. Continued Response Actions are Otherwise Appropriate and Consistent with the Remedial Action to be Taken

Describe how the proposed removal action for the site is appropriate and consistent with Federal, State or PRP remedial actions currently underway or planned for the site. For example, discuss how continued removal actions will facilitate future remedial cleanup activities (e.g., consolidation and stabilization of hazardous substances on site) or how continued response will not hinder or interfere with the remedial action to be taken. If no remedial plans are available, describe what remedial actions might be expected to be undertaken given site conditions.

V. PROPOSED ACTIONS

Briefly describe what actions are required to complete site stabilization or cleanup. Indicate the objective of the proposed actions or

the threats these actions are to abate, minimize or limit. For example, "the primary objective of the proposed action is the mitigation of the threat to public health by provision of alternate water supplies to the affected residents." Describe all alternative actions and provide the rationale for selecting the actions proposed. If off-site storage, treatment or disposal is proposed, indicate the amount or type of waste(s) requiring off-site treatment or disposal and the facility selected. Also discuss any options to off-site disposal. In cases where the type or amount of waste is not available for inclusion in the Action Memorandum, indicate the intent to comply with all requirements of the Off-site Policy. For detailed information on the Off-site Policy, OSCs should refer to Chapter IV of the Superfund Removal Procedures manual.

For all removals, discuss how, to the extent practicable given the exigencies of the situation, response actions will contribute to the efficient performance of long-term remedial actions, whether Federal, State or PRP. The primary objective of this provision is to avoid the need for removal restarts. The following questions should be considered when preparing this discussion:

- . What is the long-term cleanup plan for the site?
- . Which threats will require attention prior to the start of the long-term action?
- . How far should the removal action go to assure that the threats are adequately abated?
- . Is the proposed removal action consistent with the long-term remedy?

For additional guidance on this requirement, see OSWER directive #9360.0-131, "Guidance on Implementation of the 'Contribute to Remedial Performance' Provision."

If no remedial plans are available, describe how proposed removal actions are consistent with the remedial actions that would be expected to be undertaken based on site conditions. Discussion should be based on best professional judgement using the information available. In-depth analyses of remedial actions are not required. For example, indicate how proposed actions (provided a twelve-month exemption is granted) will address near-term threats that may require attention prior to the start of remedial action as well as more urgent threats. Also discuss how, wherever appropriate, removal actions will provide a suitable foundation for future remedial actions. In general, removal actions should not interfere with future remedial actions, nor should proposed actions eliminate any feasible remedial alternatives.

VI. RECOMMENDATION

The purpose of this section is to briefly present the Region's recommendations, rationale, and projected time schedule. For example,

"Because conditions at the site meet one of the two CERCLA 104(c) exemptions as described herein, I recommend that you approve an exemption from the twelve-month limit to allow continued removal at the Site, City, State."
Include any special conditions or provisions that pertain to this exemption.

Approve: _____ Date: _____
(Name and Title)

Disapprove: _____ Date: _____
(Name and Title)

Attachments

APPENDIX D

ACTION MEMORANDUM FORMAT FOR REQUESTING A CEILING INCREASE

Source: Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Appendix 10.

MODEL CEILING INCREASE ACTION MEMORANDUM

The following Action Memorandum format is recommended for approval of all ceiling increase requests, including those over \$2 million providing an exemption has been approved. The purpose of Appendix 10 is to provide the OSC with a generic format that can be easily followed when substantiating the need for exceeding the current ceiling on removal costs. If the ceiling increase will bring the total project ceiling above \$2 million, OSCs should prepare a combined \$2 million exemption and ceiling increase request (Appendix 12).

I. HEADING

DATE: Month/Day/Year

SUBJECT: Request for a Ceiling Increase for the Site, City, State
ACTION MEMORANDUM

Site/Spill-ID:

Category of Removal: All removal actions are considered time-critical unless otherwise indicated (e.g., classic emergency or non-time-critical)

National Significance: Indicate whether the removal is of national significance

FROM: On-Scene Coordinator

TO: Regional Administrator

NOTE: If the ceiling is already above \$2 million, then the request is addressed to the AA, OSWER from the RA, thru the Director, OERR to the attention of the Director, ERD.

II. ISSUE

Briefly explain why the ceiling increase is being requested. Indicate what the new project ceiling will be if the ceiling increase is approved. For example, "A ceiling increase of \$X for a new total of \$Y is being requested to continue a removal action at the site." If a ceiling increase will result in a total project ceiling that exceeds the \$2 million statutory limit, then prepare a combined ceiling increase/\$2 million exemption request.

III. BACKGROUND

The primary purpose of this section is to identify the key characteristics of the release in order to lay the foundation for demonstrating that an actual or potential threat to human health or the environment still exists. These characteristics include site location and pre-release use, the type of release, and its scope. In compiling this

information, the OSC should consider the availability of pictures, diagrams, maps, and/or sketches that may assist in describing the site.

A. Incident/Response History

Discuss the background/history of the site, including: current site conditions (e.g., "the site was used for recycling PCB capacitors and is unfit for human habitation because of high levels of PCBs in the soil"); who initiated action and when (for example, EPA or the State); the date action was approved in the initial Action Memorandum and by whom; the actions initially approved; actions to date (e.g., staging and overpacking of drums, or the pumping down of lagoons).

State whether the site is on the NPL. If the site is on the NPL, then state when remedial action is expected. For sites not on the NPL, indicate whether the site is scheduled to be or has been scored, if proposal for the NPL is expected, or already has occurred.

B. Site Conditions

Briefly describe the site conditions and the reasons for a ceiling increase request. These may include unanticipated events such as natural disasters, newly detected threats, contract lab delays or discovery of additional areas requiring cleanup or stabilization. Include a description of a worst-case scenario should the ceiling increase not be granted.

Discuss the present status of the removal action (e.g., drums currently awaiting disposal at a RCRA-approved disposal site). Describe for what the ceiling increase will be used (e.g., disposal of additional drums that washed ashore after the removal action began).

Include any information that may help substantiate the need for a ceiling increase. Attach any enforcement status information; ATSDR health advice; and other pertinent information, such as pictures, drawings, and other materials to the back of the Action Memorandum.

IV. PROPOSED ACTIONS

Describe the proposed actions to be undertaken if a ceiling increase is approved. Briefly describe what actions are required to complete the response (e.g., sampling for compatibility remains to be completed before final disposal may be undertaken). Indicate the objective of the proposed actions or threats these actions are to abate, minimize or limit. Describe any alternative actions and provide the rationale for selecting the actions proposed. If off-site storage, treatment or disposal is proposed, indicate the amount or type of waste(s) requiring off-site treatment or disposal and the facility selected. Also discuss any options to off-site disposal. In cases where the type or amount of waste is not available for inclusion in the Action Memorandum, indicate the intent to comply with all requirements of the Off-site Policy. For detailed information on the Off-site Policy, OSCs should refer to Chapter IV of this manual.

For all removals, discuss how, to the extent practicable given the exigencies of the situation, continued response actions (provided the ceiling increase is approved) will contribute to the efficient performance of long-term remedial actions, whether Federal, State or PRP. The primary objective of this provision is to avoid the need for removal restarts. The following questions should be considered when preparing this discussion:

- . What is the long-term cleanup plan for the site?
- . Which threats will require attention prior to the start of the long-term action?
- . How far should the removal action go to assure that the threats are adequately abated?
- . Is the proposed removal action consistent with the long-term remedy?

For additional guidance on this requirement, see OSWER directive #9360.0-131, "Guidance on Implementation of the 'Contribute to Remedial Performance' Provision."

If no remedial plans are available, describe how proposed removal actions are consistent with the remedial actions that would be expected to be undertaken based on site conditions. Discussion should be based on best professional judgement using the information available. In-depth analyses of remedial actions are not required. For example, indicate how continued actions (provided a ceiling increase is granted) will address near-term threats that may require attention prior to the start of remedial action as well as more urgent threats. Also discuss how, wherever appropriate, continued removal actions will provide a suitable foundation for future remedial actions. In general, removal actions should not interfere with future remedial actions, nor should proposed actions eliminate any feasible remedial alternatives.

V. SUMMARY OF COSTS

Provide a summary of costs, including a breakdown of costs for both the current ceiling and the proposed ceiling. Detail the estimated total project ceiling and an itemized breakdown of the following cost categories that comprise the ceiling. This includes extramural costs allowed under the RA's \$2,000,000 authority (these consist of cleanup contractor costs, letter contracts with States and other commercial entities, and site-specific LAGs); TAT costs; EPA intramural costs; National Contract Lab Program analytical costs; and ERT/REAC costs. For example, the total project ceiling should be broken down as shown on the following page.

| <u>Summary of Costs</u> | <u>Current Ceiling</u> | <u>Proposed Ceiling</u> |
|--|--|--|
| <u>Extramural Costs</u> | | |
| Extramural Cleanup Contractor (includes ERCS, Mini-ERCS, Subcontractors, Letter Contracts, Alternative Technology Contracts, IAGs with other Federal agencies, etc; contingency can be 10-20%.) | \$669,600 (20% contingency) 167,400 <u>\$837,000</u> | \$1,109,600 277,400 <u>\$1,387,000</u> |
| TAT costs | 10,000 | 10,000 |
| CLP analytical services | 20,000 | 20,000 |
| ERT/REAC | <u>20,000</u> | <u>20,000</u> |
| Subtotal Extramural Costs | 887,000 | 1,437,000 |
| Project contingency (15%) (round to nearest thousand). | <u>133,050</u> | <u>215,550</u> |
| Total Extramural Costs | \$1,020,050 | \$1,652,550 |
| <u>Intramural Costs</u> | | |
| Intramural Direct Costs (HQ, ERT and Region) | 19,000 | 19,000 |
| Intramural Indirect Costs* | <u>33,000</u> | <u>33,000</u> |
| TOTAL PROJECT CEILING ESTIMATE | <u>\$1,072,050</u> | <u>\$1,704,550</u> |

* Formula for calculating indirect costs:

$$\begin{array}{rcl} \text{Region-Specific} & & \text{Estimated Regional} \\ \text{Indirect Cost Rate} & \times & \text{Direct Labor Hours} \\ & & = \text{Indirect Costs} \end{array}$$

Regional indirect cost rates may be found in the Comptroller Policy Announcement No. 87-15, "New Method for Determination of Indirect Costs in Superfund Removal Project Ceilings" (7/15/87).

VI. RECOMMENDATION

The purpose of this section is to briefly present the Region's recommendations, rationale, and project costs. For example, "To eliminate the continuing threat posed to the nearby public and the environment consistent with the removal criteria contained in section 300.65 of the National Contingency Plan, I recommend you approve this \$X ceiling increase request." Briefly summarize what the additional funds will be used for. Briefly state how much the approval would increase the total project ceiling. For example, "Your approval would raise the total project ceiling from \$X to \$Y, of which \$Z are for the extramural cleanup contractor costs (Regional allowance). You may indicate your approval or disapproval by signing below."

Approve: _____ Date: _____
(Name and Title)

Disapprove: _____ Date: _____
(Name and Title)

Attachments

APPENDIX E

ACTION MEMORANDUM FOR REQUESTING A \$2 MILLION EXEMPTION AND A CEILING INCREASE

Source: Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Appendix 12.

MODEL \$2 MILLION LIMIT AND CEILING INCREASE ACTION MEMORANDUM

The purpose of Appendix 12 is to provide OSCs with a sample format that can easily be followed to request an exemption from the \$2 million limitation and a ceiling increase in order to continue site actions and to document that the threat meets one of the two exemptions set forth in CERCLA, as amended by SARA. The CERCLA Amendments added a new exemption to the statutory limitations on cost and duration that allows for an exemption whenever a continued removal action is determined to be otherwise appropriate and consistent with future remedial actions to be taken, whether Federal, State or PRP. This new exemption applies to NPL sites and sites proposed for the NPL, and to non-NPL sites only in limited circumstances.

The following model is representative of the memoranda frequently prepared by the Regions, it is intended to be used in situations where an initial Action Memorandum has been approved, but site conditions are such that to complete the removal action underway an exemption to the \$2 million limit and a ceiling increase is necessary.

I. HEADING

DATE: Month/Day/Year

SUBJECT: Request for an Exemption from the \$2 Million Limit and Ceiling Increase at Site, City, State
ACTION MEMORANDUM

Site/Spill-ID:

Category of Removal: All removal actions are considered time-critical unless otherwise indicated (e.g., classic emergency or non-time-critical)

National Significance: Indicate whether the removal is of national significance

FROM: Regional Administrator

TO: Assistant Administrator for Solid Waste and Emergency Response

THRU: Director,
Office of Emergency and Remedial Response

ATTN: Director,
Emergency Response Division

II. ISSUE

State that continued response actions are estimated to exceed the \$2 million statutory limit and further removal actions cannot be undertaken unless an exemption to this limitation and a ceiling increase are granted. Include as an attachment a summary of costs and the proposed ceiling increase.

III. BACKGROUND

The primary purpose of this section is to identify the key characteristics of the release in order to lay the foundation for demonstrating that an actual or potential threat to human health or the environment still exists. These characteristics include site location and pre-release use, the type of release, and its scope. In compiling this information, the OSC should consider the availability of pictures, diagrams, maps, and/or sketches that may assist in describing the site.

A. Incident/Response History

Briefly discuss the background/history of the site including: current site conditions (e.g., overflowing lagoon); who initiated action and when (for example, EPA or the State); the date action was approved in the initial Action Memorandum and by whom; the actions initially approved; actions to date; and actions to be completed (e.g., provision of bottled water).

State whether the site is on the NPL. If the site is on the NPL, then state when remedial action is expected. For sites not on the NPL, indicate whether the site is scheduled to be or has been scored, if proposal for the NPL is expected, or has already occurred.

B. Site Conditions

Briefly describe the problems or conditions at the site that have led to the \$2 million limit exemption and ceiling increase request. Examples include, adverse weather conditions, natural disasters, or the extensiveness of the work required.

IV. EXEMPTION FROM STATUTORY LIMITS

In order to obtain an exemption from the \$2 million limit, the OSC must demonstrate in the Action Memorandum that the site meets one of the two CERCLA section 104(c) exemptions. Describe in detail how site conditions meet the exemption requirements listed below. In order to be granted an exemption, site conditions must either meet exemption A or B below. Include a description of worst-case scenarios to help substantiate the need for action. Be sure to note and include as attachments any ATSDR health advice memoranda or other data that substantiate the need to exceed the \$2 million limitation.

A(i). There is an Immediate Risk to Public Health, Welfare or The Environment

A key word here is immediate. This discussion should focus on how soon the public or the environment will be at risk. Describe site conditions that constitute an immediate risk. Indicate all hazardous substances involved and define the immediacy of the risk (e.g., nearby residents will be exposed within two weeks). State whether immediate risk is to public health, welfare, or the environment, or a combination. If a health risk is

present, describe affected populations and their proximity to the site. If an environmental risk is involved, describe the nature of the threat. If there is a way to determine how quickly the public may be threatened by an increasing risk (e.g., modelling), describe how soon the public will be at risk. Indicate any weather conditions that may exacerbate site conditions. Cite all supporting documentation, for example, ATSDR health advice.

A(ii). Continued Response Actions are Immediately Required to Prevent, Limit, or Mitigate an Emergency

The key word here is emergency. Describe the conditions that are considered emergencies and explain why the response actions must continue beyond \$2 million. Include an explanation of why they are required (e.g., to prevent, limit, or mitigate an emergency) and within what time frame. Explain the consequences if an exemption is not granted and action is not continued. Cite all supporting documentation, as appropriate.

A(iii). Assistance Will Not Otherwise be Provided on a Timely Basis

The key words here are timely response. Emphasize that no other party can provide timely response. Indicate whether the State, locality or other party is willing and financially able to accomplish the required work within the required time frame. Indicate whether Federal or State enforcement actions are expected to result in revenues to support the action requested. Reference the enforcement section or attach enforcement sensitive information. If the site is on the NPL, state when remedial action is planned to begin.

OR

B. Continued Response Actions are Otherwise Appropriate and Consistent with the Remedial Action to be Taken

Describe how the proposed removal action for the site is appropriate and consistent with Federal, State or PRP remedial actions currently underway or planned for the site. For example, discuss how continued removal actions will facilitate future remedial cleanup activities (e.g., consolidation and stabilization of hazardous substances on site) or how continued response will not hinder or interfere with the remedial action to be taken. If no remedial plans are available, describe what remedial actions might be expected to be undertaken given site conditions.

V. **PROPOSED ACTIONS**

Briefly describe what actions are required to complete site stabilization or cleanup. Indicate the objective of the proposed actions or threats these actions are to abate, minimize or limit. For example, "the primary objective of the proposed action is the mitigation of the threat to public health by provision of alternate water supplies to the affected residents." Describe any alternative actions and provide the rationale for selecting the actions proposed. If off-site storage, treatment or disposal

is proposed, indicate the amount or type of waste(s) requiring off-site treatment or disposal and the facility selected. Also discuss any options to off-site disposal. In cases where the type or amount of waste is not available for inclusion in the Action Memorandum, indicate the intent to comply with all requirements of the Off-site Policy. For detailed information on the Off-site Policy, OSCs should refer to Chapter IV of this manual.

For all removals, discuss how, to the extent practicable given the exigencies of the situation, response actions will contribute to the efficient performance of long-term remedial actions. The primary objective of this provision is to avoid the need for removal restarts. The following questions should be considered when preparing this discussion:

- . What is the long-term cleanup plan for the site?
- . Which threats will require attention prior to the start of the long-term action?
- . How far should the removal action go to assure that the threats are adequately abated?
- . Is the proposed removal action consistent with the long-term remedy?

For additional guidance on this requirement, see OSWER directive #9360.0-131, "Guidance on Implementation of the 'Contribute to Remedial Performance' Provision."

If no remedial plans are available, describe how proposed removal actions are consistent with the remedial actions that would be expected to be undertaken based on site conditions. Discussion should be based on best professional judgement using the information available. In-depth analyses of remedial actions are not required. For example, indicate how proposed actions (provided a \$2 million exemption and ceiling increase are granted) will address near-term threats that may require attention prior to the start of remedial action as well as more urgent threats. Also discuss how, wherever appropriate, removal actions will provide a suitable foundation for future remedial actions. In general, removal actions should not interfere with future remedial actions, nor should proposed actions eliminate any feasible remedial alternatives.

VI. SUMMARY OF COSTS

Provide a summary of costs, including a breakdown of costs for both the current ceiling and the proposed ceiling. Detail the estimated total project ceiling in an itemized breakdown of the following cost categories that comprise the ceiling. This includes extramural costs allowed under the RA's \$2,000,000 authority (these consist of cleanup contractor costs, letter contracts with States and other commercial entities, and site-specific IAGs); TAT costs; EPA intramural costs; Contract Lab Program analytical costs; and ERT/REAC costs. An example of how the total project ceiling should be broken down is provided on the following page.

| <u>Summary of Costs</u> | <u>Current Ceiling</u> | <u>Proposed Ceiling</u> |
|---|--|---------------------------------------|
| <u>Extramural Costs</u> | | |
| Extramural Cleanup Contractor (includes ERCS, Mini-ERCS, Subcontractors, Letter Contracts, Alternative Technology Contracts, IAGs with other Federal agencies, etc; contingency can be 10-20%.) | 5669,600 (20% contingency) 157,400 \$837,000 | \$1,549,600 337,400 \$1,937,000 |
| TAT costs | 10,000 | 10,000 |
| CLP analytical services | 20,000 | 20,000 |
| ERT/REAC | 20,000 | 20,000 |
| Subtotal Extramural Cost | 837,000 | 1,987,000 |
| 15% Contingency of Above Costs (round to nearest thousand) | 133,050 | 298,050 |
| Total Extramural Costs | \$1,020,050 | \$2,235,050 |
| <u>Intramural Costs</u> | | |
| Intramural Direct Costs (HQ, ERT and Region) | 19,000 | 19,000 |
| Intramural Indirect Costs* | 33,000 | 33,000 |
| TOTAL PROJECT CEILING ESTIMATE | <u>\$1,072,050</u> | <u>\$2,337,050</u> |

* Formula for calculating indirect costs:

$$\begin{array}{lcl} \text{Region-Specific} & & \text{Estimated Regional} \\ \text{Indirect Cost Rate} & \times & \text{Direct Labor Hours} \\ & & = \text{Indirect Costs} \end{array}$$

Regional indirect cost rates are provided in the Comptroller Policy Announcement No. 87-15, "New Method for Determination of Indirect Costs in Superfund Removal Project Ceilings" (7/15/87).

VII. RECOMMENDATION

The purpose of this section is to briefly present the Region's recommendations, rationale and project costs. For example, "Because conditions of the site meet one of the two CERCLA 104(c) exemptions as described herein, I recommend that you approve an exemption from the \$2 million limitation to allow continued removal activities at the Site, City, State. In addition, I recommend an increase in the ceiling to \$X, of which \$Y are for the extramural cleanup contractor costs (Regional allowance).

Approve: _____ Date: _____
(Name and Title)

Disapprove: _____ Date: _____
(Name and Title)

Attachments

APPENDIX F

FORMAT FOR EE/CA APPROVAL MEMORANDUM

***** DRAFT *****

A FINAL VERSION WILL BE FORWARDED WHEN AVAILABLE

EE/CA APPROVAL MEMORANDUM OUTLINE

This memorandum format is to be used for documentation of threat pursuant to Section 300.65 of the NCP and is a record of decision for both HQ and RA approved engineering evaluation/costs analyses (EE/CAs).

I. HEADING

SUBJECT: EE/CA Request for the ABC Site, XYZ State
EE/CA APPROVAL MEMORANDUM

Site/Spill-ID:

Category of Removal: (State that the removal is 1) a non-time-critical action and/or 2) of national significance)

FROM: On-Scene Coordinator/Remedial Project Manager

TO: Regional Administrator (or AA, OSWER, if appropriate)

THRU: Regional Division Director, as appropriate

II. BACKGROUND

The background section should contain information on the location of the site, the incident characteristics (including the history of the site, general character of the site, and issues relevant to waste management), summary of quantity and types of substances present, State and local authorities' role, and actions to date, including previous and current actions to abate threat. Each of these information points is described below.

A. Site Description

1. Describe the site's physical location.
2. Discuss the general character of the site.
3. Provide supporting documentation.

B. Incident Characteristics

1. Discuss the history of the incident.
2. Discuss the relevant issues relating to current waste management practices.

C. Quantities and Types of Substances Present

1. Describe the hazardous substances in terms of categories or classes of chemicals.
2. Describe the sampling methodology.

D. State and Local Authorities' Roles

1. Briefly describe State and local actions to date.
2. Summarize the potential for continued State and local response.

E. Actions to Date

1. Discuss any previous actions to abate threat.
2. Discuss any current actions to abate threat.

**III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT
(Include determination that threat is non-time-critical)**

Removals address two distinct criteria. The first is a threat to the public health, welfare and the environment. The second criterion is the availability of non-CERCLA response mechanisms. The following threats are considered in determining the appropriateness of a removal action:

- o Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain;
- o Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- o Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
- o High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- o Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;
- o Threat of fire or explosion;
- o The availability of other appropriate Federal or State response mechanisms to respond to the release;
- o Other situations or factors which may pose threats to public health, welfare or the environment.

OSCs should make sure that their Approval Memoranda discuss the ways in which the release meets these NCP criteria. Sections A and B below provide some specific examples of the type of material to include.

A. Threats to Public Health and Welfare

1. Describe the threats to public health and welfare.
2. Describe all actual or potential impacts on human health and welfare.

B. Threats to the Environment

1. Describe threats to the environment.
2. Discuss all actual or potential impacts on the affected area.

IV. ENFORCEMENT (not for public release)

The purpose of this section is to assist in making the determination of the potential for response action by PRPs. This information should be referenced here as "see attachment" and placed on a separate page entitled "Enforcement Sensitive." This section includes information on the enforcement strategy (summarized), the status of notice letters and/or negotiations, the available enforcement authority, potentially responsible parties, previous enforcement actions, the probability of recovering costs, and the recommended enforcement strategy if there is no strategy currently in place. This section also should contain information on the potential for responsible party response. In some Regions, this section of the Approval Memorandum may be prepared by enforcement personnel.

A. Enforcement Strategy

1. Briefly summarize the enforcement strategy.
2. Briefly summarize the enforcement actions.

B. Status of Enforcement Actions

1. Potentially responsible parties.
 - a. Describe the number and types of potentially responsible parties (e.g., transporters and owners or operators of production facilities or waste disposal facilities).
 - b. Indicate if the PRP has taken action. If so, mention whether or not the action was adequate.

- c. Describe what efforts are being undertaken to obtain additional PRP response.
- d. Give the date(s) that notice letter(s) were sent and a summary of the responses of the recipients (e.g., the PRPs have agreed to clean up the site or the PRPs have denied involvement at the site). If negotiations are underway, describe the activities under discussion.

2. Discuss the probability of recovering costs.

V. PROPOSED PROJECT AND COSTS

- A. Objectives of the EE/CA: A short statement should be made describing the specific tasks involved in preparation of the EE/CA, including any on-site activities necessary (e.g., drum excavation), and the results sought by the EE/CA as they pertain to the threat(s) discussed in IV.
- B. The estimated total EE/CA project ceiling (104(b) costs) and an itemized breakout of the following cost categories which comprise the total ceiling: TAT costs, intramural costs, National Contract Lab Program analytical costs, and ERT/REAC costs. (REM contractor costs would be included at NPL sites, if appropriate.) For example, the total project ceiling may be established in the following manner:

| | |
|--------------------------|---------------|
| TAT costs | 10,000 |
| NCLP analytical services | 20,000 |
| ERT study | 20,000 |
| Indirect (HQ and Region) | <u>45,000</u> |
| TOTAL 104(b) COSTS | \$95,000 |

If any CERCLA funds have already been allocated for this site, give the amount and tasks involved. Indicate obligations to date, if appropriate.

- C. EE/CA Schedule: The estimated period of performance should be given, with interim milestones, as appropriate.
- D. Estimated Cost and Duration of Removal Action: The approximate cost and duration of the final removal action, based on the nature of the site problems and waste volume and characteristics.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD NO ACTION BE TAKEN OR SHOULD ACTION BE DELAYED

Describe any expected changes in the situation should no action be taken or action be delayed. Include a description of a worst-case scenario should no action be taken. These changes may include:

- o Spread in scope of contamination. For example, the ground water contaminant plume may spread through a larger area.
- o Change in nature of contamination. For example, incompatible substances may come into contact with each other, producing added threats such as fire/explosion or formation of poisonous gases such as hydrogen cyanide.
- o Increased threat to human health and the environment if action is delayed or denied. For example, the contaminant plume may soon reach drinking water wells or phosphine gas or other poisonous gases may be produced.
- o Additional response actions required if the initial response is delayed or denied resulting in a longer, more costly removal. For example, the drums will deteriorate further, leaking additional contaminants into the ground.

VII. IMPORTANT POLICY ISSUES (Only as necessary and applicable)

If applicable, include a separate section on important policy issues that are significant to this request. These issues may include:

- o Provision for cost sharing (cost sharing is applicable only in a small number of cases and applies only to removals at NPL sites that were publicly operated, either by a State or a political subdivision thereof, at the time of the release and a remedial action is ultimately undertaken at the site)
- o The division of responsibilities among Federal and/or State agencies
- o Off-site disposal availability and compliance with OSWER's Off-site Policy
- o Compliance with other environmental statutes
- o Special coordination needs/issues of national significance (e.g., dioxin) and similar issues
- o Contiguous sites (if multiple locations are recommended by the Region for consideration as one site, give justification for such consideration).

Issues should be fully explained and include a discussion on the efforts being made to resolve the issue and/or decisions that must be made before a resolution is reached.

VIII. REGIONAL RECOMMENDATION

Use a paragraph such as: "Because conditions at the XYZ Site meet the NCP Section 300.65 criteria for a removal action, I recommend your approval of the engineering evaluation/cost analysis (EE/CA) request. The estimated total costs of performing the EE/CA are \$X. You may indicate your approval or disapproval by signing below."

Approve: _____

Date: _____

Disapprove: _____

Date: _____

APPENDIX G

NON-ALLOWABLE COSTS UNDER SUPERFUND

Source: Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Section III-F-2-c.

NON-ALLOWABLE COSTS UNDER SUPERFUND

Permissible uses of money from the Hazardous Substances Response Trust Fund ("Superfund") are circumscribed by CERCLA and the NCP. There are certain expenditures which cannot be charged to Superfund, including:

1. State and local costs for which prior authorization was not specifically given by the OSC or addressed in a cooperative agreement or Superfund State Contract or procurement contract (e.g., municipal services, such as use of police or fire departments, and State personnel who are on-scene performing tasks not specifically requested by the OSC).
2. Costs to restore release-related damages to property (as opposed to response-related damages). Release-related damages are those that occur as a direct result of the release of a hazardous substance (e.g., poisoning of fish or livestock). Payment for restoring, rehabilitating, or acquiring the equivalent of costs to natural resources damaged by the release may be made upon the trustee's request for preauthorization under the claims regulations, which are under development.
3. Costs for the research and development of equipment and response technologies used in conjunction with a removal action; e.g., alternative disposal technologies. Funding may be available, however, through sources other than the CERCLA Trust Fund. If such situations arise, the OSC should contact the Hazardous Response Support Division (HRSD) in Headquarters.
4. Costs for removal of petroleum, including crude oil and any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance, natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
5. Costs incurred by a contractor to provide response measures, for which that contractor is later found to be liable.

More complete guidance on allowable costs is currently being developed by OERR.

APPENDIX H

COST TABLES FOR EPA INDIRECT PROVISIONAL RATES
AND THE NATIONAL CONTRACT LABORATORY PROGRAM

Estimating EPA National Contract Laboratory Program (CLP) Costs

| <u>Routine Analytical Services (RAS)</u> | <u>Sample Matrix</u> | <u>Cost(\$)/Sample¹</u> |
|--|-------------------------|------------------------------------|
| Organics-EPA Hazardous Substances List (Volatiles, Base/Neutral/Acid, Pesticides/PCBs) | Water and Soil/Sediment | 1389 |
| Inorganic - 23 metals and cyanide | Water and Soil/Sediment | 209 |
| Dioxin - 2,3,7,8-TCDD | Soil/Sediment Only | 200 |
| Volatile Organics Only | Water and Soil/Sediment | Not Available at this Time |

Special Analytical Services (SAS)

Cost may be requested from the CLP Sample Management Office (SMO) through the EPA Regional Sample Control Centers (RSCC).

To estimate CLP laboratory cost:

1. From information in Chapter 2 (Steps 1-6), estimate the number of samples and the type of analyses for each sample matrix (i.e., water or soil/sediments). Remember to include field blanks if applicable.

Example:

| <u>Matrix</u> | <u>Analysis</u> | <u>No. of Samples</u> |
|---------------|-----------------|-----------------------|
| Water | Inorganics | 7 |
| Soil | Inorganics | 27 |
| Water | Organics | 17 |
| Sediments | Dioxin | 5 |

¹ Reflects the highest cost/sample presently paid in the CLP for each analysis category.

2. EPA requires contract laboratories to perform quality control (QC) sample analyses (i.e., matrix spikes, duplicates, and method blanks) for each sample matrix at an interval of every 20 samples or per case whichever is more frequent. (A case is designated as a group of samples collected at one site or geographic location during a specific time period usually one to two weeks.) The cost of the QC analyses is not included in the cost per sample listed above. Therefore, contract laboratories charge the EPA the same cost per sample listed above for each required QC sample analysis. To determine the total number of samples to use in estimating costs, add four QC samples per 20 samples or per case whichever is more frequent of each sample matrix analysis request. For example:

| <u>Matrix</u> | <u>Analysis</u> | <u>No. of Samples</u> | <u>QC Samples</u> | <u>Total Samples</u> |
|---------------|-----------------|-----------------------|-------------------|----------------------|
| Water | Inorganic | 7 | 4 | 11 |
| Soil | Inorganic | 27 | 8 | 35 |
| Water | Organic | 17 | 4 | 21 |
| Sediment | Dioxin | 5 | 4 | 9 |

3. Multiply the total number of samples (Step 2) for each analysis by the cost per sample listed in the table and subtotal:

| <u>Matrix</u> | <u>Analysis</u> | <u>Total No. of Samples</u> | <u>Cost (\$)</u> | <u>Estimated Cost (\$)</u> |
|---------------|-----------------|-----------------------------|------------------|----------------------------|
| Water | Inorganic | 11 | 209 | 2299 |
| Soil | Inorganic | 35 | 209 | 7315 |
| Water | Organic | 21 | 1389 | 29169 |
| Sediments | Dioxin | 9 | 200 | 1800 |
| Subtotal | | | \$408583 | |

4. Add a fifteen percent contingency allowance to the laboratory costs to cover labels, bottles, packaging materials, sample shipment and other miscellaneous costs related to CLP costs.

Provisional FY 1987 EPA Indirect Cost Rates¹

| <u>Region</u> | <u>Organizations to Which the Rates Apply</u> | <u>FY 87 Provisional Rates</u> |
|---------------|--|--------------------------------|
| I | Air, Water, Environmental Services, and Waste Management Division | \$60 per hour |
| II | Caribbean Field Office; Emergency and Response, Air and Waste Management, Water Management, and Environmental Services Divisions | \$68 per hour |
| III | All Regional Organizations | \$52 per hour |
| IV | All Regional Organizations | \$54 per hour |
| V | Directors Office - Waste Management/ Emergency Response; Hazardous Waste Enforcement Branch, Great Lakes Coordinator; Central Regional Lab; Eastern and S&A Central District Offices; and Waste Management, Air, Water, and Environmental Services Divisions | \$61 per hour |
| VI | Houston Lab; and Air, Pesticides and Toxics, Water Management, Hazardous Waste Management, and Environmental Services Divisions | \$60 per hour |
| VII | Water Management, Air and Toxics, Environmental Services, and Waste Management Divisions | \$65 per hour |
| VIII | Air and Hazardous Material Branch; Montana Office; and Water, Air and Hazardous Material, and Environmental Services Divisions | \$62 per hour |
| IX | Toxics and Waste Management, Water Management, and Air Management Divisions | \$63 per hour |
| X | Alaska, Oregon, Idaho, and Washington Operations Offices; and Air and Toxics, Water, Hazardous Waste, and Environmental Services Divisions | \$61 per hour |

¹From Comptroller Policy Announcement No. 87 - 15: New Method for Determination of Indirect Costs in Superfund Removal Project Ceilings; July 15, 1987.

APPENDIX I

COST PROJECTION EXAMPLE

REMOVAL PROJECT CEILING ESTIMATE

Extramural Costs

Extramural Cleanup Contractor
(includes ERCS, letter contracts, IAGs,
CAs, Regional ERCS, and a contingency
contingency can be 10 - 20%)

\$750,000
+ \$112,500 (15% contingency)
\$862,500

TAT Costs \$50,000

NCLP Analytical Costs \$100,000

ERT Contract (REAC) + \$100,000

Subtotal -- Extramural Costs \$1,112,500

15% Contingency of Above Costs
(round to nearest thousand) + \$167,000

TOTAL -- EXTRAMURAL COSTS

\$1,279,500

Intramural Costs

Direct Costs
[\$30 x 500 labor hours (400 Regional/40 HQ/60 ERT)]

\$15,000

Indirect Costs

\$24,000

Other Direct Costs

+ \$1,000

TOTAL -- INTRAMURAL COSTS

\$40,000

TOTAL REMOVAL PROJECT CEILING ESTIMATE:

\$1,319,500

Indirect Cost Formula:

| | | | | |
|---------------------------------------|---|--|---|----------------|
| Region-Specific Indirect Cost Rate | x | Estimated Regional Direct Labor Hours | = | Indirect Costs |
| \$60 | | 400 hours | | \$24,000 |

APPENDIX J

**MEMORANDUM OF UNDERSTANDING BETWEEN EPA AND AGENCY FOR
TOXIC SUBSTANCES AND DISEASE REGISTRY**

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY
AND
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

April 2, 1985

1. PURPOSE

The Agency for Toxic Substances and Disease Registry (ATSDR) and the Environmental Protection Agency (EPA) agree that guidance is required to define and coordinate joint and respective responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act (Public Law 96-510, 94 Stat. 2796, 42 USC 9601 et seq; CERCLA), Executive Order 12316 (Responses to Environmental Damage), and the National Oil and Hazardous Substances Contingency Plan (NCP; 40 CFR Part 300). This Memorandum of Understanding (MOU) establishes policies and procedures for conducting response and non-response health activities related to releases of hazardous substances.

2. AUTHORITY

CERCLA Section 104 authorizes the President to respond to releases or substantial threats of releases into the environment of hazardous substances and certain releases of pollutants or contaminants. CERCLA also establishes the Hazardous Substance Response Trust Fund. CERCLA section 104(i) authorizes ATSDR (part of the Department of Health and Human Services (HHS)) to effectuate and implement specific health-related activities with the cooperation of EPA and other agencies. Executive Order 12316 further delegates to the Secretary of HHS certain investigatory authorities vested in the President under CERCLA section 104 for conducting activities with the cooperation of other agencies, relating to illness, disease or complaints thereof. Executive Order 12316 delegates to EPA the primary response authority under CERCLA section 104 relating to release or extent of release of hazardous substances, pollutants, or contaminants, and determination of the presence of an imminent and substantial danger to the public health or welfare or the environment. Exceptions to this authority include responses to releases from Department of Defense (DOD) facilities or vessels (delegated to DOD) and releases involving the coastal zone, Great Lakes waters, ports, and harbors (delegated to the U.S. Coast Guard).

3. SCOPE OF RESPONSIBILITIES

This MOU covers the coordination of health-related activities by ATSDR and EPA as authorized by CERCLA and delegated by Executive Order 12316. ATSDR has statutory responsibilities under CERCLA and Executive Order 12316 for activities related to illness, disease, or complaints thereof, for disease registries and other responsibilities related to response actions. EPA has statutory authority under CERCLA and Executive Order 12316 for activities related to release or threat of release of hazardous substances, pollutants, or contaminants, and for determination of the extent of danger to public health, welfare, or the environment, as well as other responsibilities related to response actions.

ATSDR and EPA will carry out their responsibilities according to CERCLA, Executive Order 12316, the NCP, and this MOU. ATSDR's major responsibility will be the evaluation of populations with current or potential exposure to waste sites, development of health advisories, and the follow up on populations for the evaluation of future health effects. EPA's major responsibility in the health area will be risk assessment and risk management as defined herein. Health advisories will be based on ATSDR's evaluations of current health effects and will adapt EPA's risk assessments at a site or sites. ATSDR will not perform risk assessments as defined herein, using the funds made available from the Hazardous Substances Response Trust Fund. If risk assessments are not available, ATSDR will consult EPA on a case-by-case basis. ATSDR will conduct some of its activities through interagency agreements with other participating agencies of the Public Health Service through cooperative agreements with State health departments, and through contractual arrangements whenever appropriate. Such interagency agreements include those with the Centers for Disease Control to conduct health studies and conduct research and provide assistance on worker health and safety issues; with the Library of Medicine to establish and maintain the needed data bases on health effects of toxic substances; and with the National Toxicology Program to conduct standard toxicological assays.

Definitions for the key terms used in this section follow:

- o Health Consultation: Immediate or short-term consultation by ATSDR to provide health advice and/or health effects information regarding a specific site.
- o Health Assessment: Initial multi-disciplinary reviews by ATSDR of all readily available data to evaluate

the nature and magnitude of any threat to human health at a site. These evaluations will adapt EPA's risk assessment for the characterization of potential health threats at a site or sites, and may include literature searches, information summarization and evaluation of existing environmental data, pilot samples, testing for food chain contamination, and similar activities.

- o Public Health Advisory: An advisory issued by ATSDR based on the results of its health assessment.
- o Epidemiologic Studies: Long-term epidemiologic study by ATSDR involving a comprehensive protocol designed to add knowledge of the health effects of a specific substance or substances at a site or sites.
- o Health Registry: A site-specific or adverse health effects-specific registry established and maintained to track specific diseases and illnesses and long-term health effects to persons exposed to toxic substances.
- o Pilot Study: A preliminary or short term medical, laboratory, or epidemiologic study on a limited human population to decide if additional, large scale studies are warranted. The study populations can include those living at, or near, a site and those not residing at, or near, a site (control or reference population).
- o Risk Assessment: A qualitative/quantitative process conducted by EPA to characterize the nature and magnitude of potential risks to public health from exposure to hazardous substances, pollutants or contaminants released from specific sites. This process consists of hazard identification, dose-response assessment, exposure assessment, and risk characterization and supports EPA's risk management process.
- o Risk Management: The process conducted by EPA to determine the nature and extent of remedy for a site, including alternative selection.

A. Removal Actions

Removal actions are Superfund response activities involving the short-term cleanup or removal of released hazardous substances that pose an immediate hazard. These actions generally are limited by CERCLA to \$1 million in cost and six months in duration.

ATSDR activities in support of specific removal actions involve health consultations and health advisories. In addition, ATSDR may monitor the health of residents who have been exposed to the hazardous substances or who live near the release site. ATSDR may also provide technical assistance to EPA on matters of worker health and safety during the removal, and may provide community relations assistance to EPA. ATSDR may become involved in removal actions through a variety of mechanisms and at various stages of a removal action. The On-Scene Coordinator (OSC) shall recommend that ATSDR be called in at any time during the removal action, at the time that the criteria under Section B.3 are met, unless in the OSC's opinion there is no need for further public health input into the removal action. Alternatively, the recommendation for ATSDR involvement may be initiated by ATSDR itself, the State, or the EPA Regional Administrator.

B. Remedial Response

Remedial actions are those response actions consistent with a permanent remedy at a site. Remedial action is preceded by detailed planning. This section discusses coordination of ATSDR and EPA efforts during the remedial response process, which involves the five major stages:

- o Site discovery, preliminary assessment, and site inspections;
- o Site ranking and NPL listing;
- o Remedial investigation (RI);
- o Feasibility study (FS); and
- o Remedial design and construction.

The roles of ATSDR and EPA during these stages are discussed in the subsections below.

B.1 Site Discovery, Preliminary Assessment, and Site Inspection

There are different methods for identifying sites for potential remedial response under the Superfund program. CERCLA section 103 requires certain parties to notify the National Response Center when they have knowledge of a release of a hazardous substance equal to or in excess of the reportable quantity for that substance. Notification is forwarded to EPA and the affected State. In addition to this formal notification process, EPA may receive notification of a potential or actual release from a local, State, or Federal agency that discovers the release in the performance of its responsibilities. Following notification of a potential or actual release, EPA conducts a preliminary assessment of the site to determine whether further investigation and Hazard Ranking System (HRS) scoring is warranted.

Site discovery, preliminary assessment, and site inspection are primarily the responsibility of EPA. If ATSDR discovers a potential or actual release during the performance of its responsibilities, ATSDR will notify EPA of this release. EPA may perform preliminary assessments and site inspections of such releases, as warranted, and will determine whether further investigation is necessary.

B.2 Site Ranking and NPL Listing

CERCLA section 105(8) requires the President to develop criteria for determining priorities among releases or threatened releases of hazardous substances and, based upon those criteria, publish and amend the NPL. Executive Order 12316, section 1(c) delegates to EPA "[t]he responsibility for...all of the...functions vested in section 105" of CERCLA.

Decisions regarding specific site scoring and listing of sites on the NPL are the responsibility of EPA. If ATSDR discovers any information about potential candidates for the NPL during the performance of its responsibilities, ATSDR will submit that information to EPA. To facilitate this, EPA headquarters will notify ATSDR prior to each amendment of the NPL to allow ATSDR to recommend sites to be considered for the NPL, and EPA will consider such recommendations, based upon the data used by ATSDR to make the recommendation, before publishing the amended NPL. EPA may decide to rank sites identified by ATSDR, retain the site information on EPA files for future reference, or seek further information about such sites, and will notify ATSDR of its decision.

B.3 Remedial Investigation

CERCLA section 104(b) authorizes the President to undertake "such investigations, monitoring, surveys, testing, and other information gathering" necessary to "identify the existence and extent of the release or threat thereof, the source and nature of hazardous substances, pollutants or contaminants involved, and the extent of danger to public health or welfare or the environment." Section 2(a) of Executive Order 12316 delegates to the Secretary of HHS in cooperation with other agencies, those functions of Section 104(b) "relating to illness, disease, or complaints thereof." HHS's responsibilities are performed by ATSDR. Section 2(e) delegates to EPA most of the remaining authorities under section 104, including those functions under section 104(b) listed above as they related to the occurrence or potential occurrence of a release.

The EPA Regional Administrator, or his designee, will determine as early as possible in the RI/FS process for a site whether concurrent ATSDR involvement in the RI/FS is

necessary. In deciding whether to request concurrent ATSDR involvement, the Regional Administrator, or his designee, will consider the following criteria:

- o Whether the presence of toxic substances has been confirmed at the site;
- o Whether pathways of human exposure to toxic substances have been demonstrated to exist at the site, especially if such pathways involve direct contact with toxic substances; and
- o Whether a human population has been exposed to toxic substances via the identified pathways, and whether there exists a threat of current or future health effects to the population being so exposed, after considering EPA's risk assessments or health effects information from other sources.

If these criteria are met, the EPA Regional Administrator, or his designee, shall request concurrent ATSDR involvement, unless in his opinion there is no need for further public health input into the RI/FS. Alternatively, the recommendation for ATSDR involvement may be initiated by ATSDR itself, or the State.

Elements of the remedial investigation in which ATSDR participates may include review of site sampling plans and analysis protocols, site sampling, data analysis and interpretation, worker health and safety, community relations, and the remedial investigation report. The division of responsibilities and coordination between EPA and ATSDR in conducting these activities is described in the following paragraphs. EPA and ATSDR will agree to strict time schedules on a site-specific basis for all activities to be performed by ATSDR, to ensure that the response process is not delayed. Any changes in the time schedule will be mutually agreed upon by EPA and ATSDR.

Site Sampling. Where EPA has requested concurrent ATSDR involvement, ATSDR will advise EPA during the preparation of sampling and analysis protocols to ensure collection of data useful to ATSDR for health assessments and epidemiological studies. EPA will be responsible for the development and conduct of any environmental and biological (other than human) sampling, and developing the tests therefor. ATSDR will consult with appropriate health agencies and will summarize recommendations regarding the necessity for testing of human subjects. If human subject testing is determined to be necessary, ATSDR will be responsible for any such testing. EPA shall review the protocols or sampling plans for such testing to ensure collection of data useful to EPA in performing subsequent risk assessment and risk management.

Sampling Protocol. Where EPA has requested concurrent ATSDR involvement, EPA and ATSDR will submit a draft of all protocols to each other for review prior to institution of any site sampling or monitoring. Any changes in the sampling protocols will also be provided to ATSDR for review. With regard to the review of non-site specific protocols, (e.g., protocols for standard Contract Laboratory Program analysis) EPA will provide these to ATSDR for review as early as possible to avoid the necessity of ATSDR review of these protocols on a site specific basis.

Data Analysis and Interpretation. At sites where EPA has requested concurrent ATSDR involvement, EPA will provide its data from environmental, toxicological and other biological sampling and testing to ATSDR. ATSDR will review all available data for a site, including EPA's hazard identification, dose-response assessment, exposure assessment, and risk characterization information, drawing conclusions about any threats to public health associated with the site. Based on its interpretation of the site data, ATSDR will characterize the health threats based on its evaluation of current health effects and in consultation with EPA concerning the magnitude and timing of potential future health effects. ATSDR will communicate all health concerns to regional EPA staff and will provide copies of health assessments and advisories to EPA.

Worker Health and Safety. EPA may request assistance from ATSDR on worker health and safety issues during a remedial investigation, including consultation on the design of worker health and safety plans and monitoring of plan implementation. ATSDR will make arrangements for laboratory and field testing related to worker health and safety and worker surveillance.

Community Relations. ATSDR may provide, at EPA's request, assistance in conducting community relations activities during the remedial investigation. Such assistance may include:

- o Preparation of technical and non-technical information material for the public describing human health threats posed by substances at a site;
- o Reviewing and commenting on human health-related documents prepared and submitted by citizens (e.g., citizen-generated health survey protocols);
- o Participation in public meetings, small group meetings, and workshops; and
- o Preparing responses to specific public inquiries regarding human health impacts of site problems.

Remedial Investigation Report. At the conclusion of the remedial investigation at sites where ATSDR is involved, EPA will send a copy of the remedial investigation report to ATSDR. ATSDR will review health-related data and interpretations of such data in the report and provide comments to EPA within a mutually agreed upon time frame.

If EPA and ATSDR agree that ATSDR involvement is not required at a site, ATSDR will not participate in the remedial planning process at that site. ATSDR may undertake other statutory activities, such as epidemiological studies or disease registries, at a site or sites. ATSDR will coordinate all such activities with EPA and will advise EPA of imminent threats to human health at any site and at any time during EPA's remedial process. In addition, EPA may request ATSDR assistance in disseminating health information to the public and in responding to health concerns of local citizens.

B.4 Feasibility Study

EPA has the final authority for determining the extent of remedy at a site and selecting a specific remedy during the feasibility study. In conducting feasibility studies, EPA will develop, evaluate, and select remedial options using the approach described in its feasibility study guidance. For those sites where there has been concurrent ATSDR involvement, EPA staff will consult ATSDR for its assessment of any human health data (e.g., clinical, epidemiologic) and EPA's risk assessment resulting from the remedial investigation. EPA will be responsible for performing qualitative/quantitative risk assessments evaluating long-term risks to the public that may result from exposure to hazardous substances from Superfund sites.

It is the responsibility of EPA (Office of Solid Waste and Emergency Response) to incorporate the results of the risk assessment process and of health assessments by ATSDR into risk management determinations of the extent of remedy for a site. The goal of this process is to ensure that the remedial action is adequate with regard to eliminating or mitigating the existing and future public health threats. EPA may consider and incorporate applicable information provided by ATSDR on the current status of public health at the site into the selection of the preferred remedy. At the discretion of the appropriate Regional Administrator, EPA staff may also consult with ATSDR staff for any interpretation of human health data at sites where ATSDR is not concurrently involved. In addition, EPA may request ATSDR assistance at any site in disseminating health information to the public and in responding to health concerns of local citizens. In the course of performing its health activities, should ATSDR discover any site which, in its opinion, poses

an imminent threat to public health, ATSDR will immediately notify the relevant EPA Regional Office and EPA Headquarters of this finding.

For each remedial response site where ATSDR involvement is requested, EPA will provide ATSDR with a copy of the draft feasibility study, and where appropriate with rough draft sections of the feasibility study relating to human health and interpretation, prior to the public comment period if possible. ATSDR will review the interpretation of the human health data in the draft feasibility study and provide comments to EPA during the public comment period. ATSDR will also provide to EPA any health information it possesses on the site during the public comment period.

B.5 Remedial Design and Construction

The design and construction of the selected remedy at Superfund sites is EPA's responsibility. The Regional Administrator may, at his discretion, request a health assessment from ATSDR with regard to certain elements of the remedial design. At the conclusion of the design stage, EPA should provide advance copies of the Remedial Design and Construction Plans to ATSDR whenever possible if they wish review and comment by ATSDR. ATSDR will notify EPA if the remedial design does not, in its opinion, eliminate or mitigate the public health threat.

C. Cost Recovery

Under CERCLA, EPA is authorized to recover from responsible parties all government costs incurred during a response action. ATSDR agrees to conform with all procedures and requirements for documenting costs that are to be recovered.

D. Funding

All costs incurred by ATSDR in performing its CERCLA responsibilities are funded by ATSDR through funds provided for this purpose. Funding for ATSDR activities performed under CERCLA is from the Hazardous Substances Response Trust Fund and is provided by EPA through the budget task force required by Section 7 of Executive Order 12316 or through separate interagency agreements for specific health studies. ATSDR will comply with the financial and reporting requirements outlined in the Interagency Agreements that transfer Fund monies to ATSDR.

4. PERIOD OF AGREEMENT

This Memorandum of Understanding will continue in effect until modified or amended by the assent of both parties or terminated by either party upon a thirty (30) day

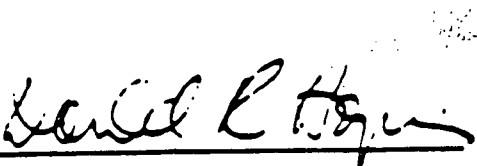
advance written notice of the other party. Nothing in the Memorandum is intended to diminish or otherwise alter statutory authority of the agencies involved.

5. AMENDMENTS

This Memorandum may be amended at any time by the agreement of both parties. Each amendment must be in writing and signed by the appropriate ATSDR and EPA officials.

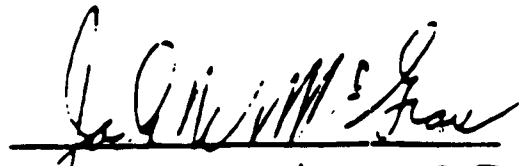
6. EFFECTIVE DATE

This Memorandum will become effective at noon on the date of the last signature below.



Date: MAY 24 1985

For the Agency for Toxic
Substances and Disease
Registry



Date: 4-25-85

For the United States
Environmental Protection
Agency

APPENDIX K

**DRAFT MEMORANDUM OF UNDERSTANDING BETWEEN EPA AND THE FEDERAL
EMERGENCY MANAGEMENT AGENCY**

***** DRAFT *****

A FINAL VERSION WILL BE FORWARDED WHEN AVAILABLE

MEMORANDUM OF UNDERSTANDING
THE FEDERAL EMERGENCY MANAGEMENT AGENCY AND THE
ENVIRONMENTAL PROTECTION AGENCY FOR THE IMPLEMENTATION
OF RELOCATION ACTIVITIES UNDER P.L. 96-510, THE
COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION,
AND LIABILITY ACT OF 1980 (CERCLA), AS AMENDED BY
P.L. 99-499, THE SUPERFUND AMENDMENTS AND REAUTHORIZATION
ACT OF 1986 (SARA)

1. PURPOSE

This Memorandum of Understanding (MOU) supersedes the MOU between the United States Environmental Protection Agency (EPA) and the Federal Emergency Management Agency (FEMA) of May 5, 1985 and any subsequent amendments. This MOU describes major responsibilities and outlines areas of mutual support and cooperation relating to relocation activities associated with response actions pursuant to CERCLA, as amended by SARA, Executive Order (E.O.) 12580, and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), 40 CFR Part 300.

Separate Interagency Agreements (IAGs) between EPA and FEMA will be developed to address both general and specific relocation activities. Such IAGs will be in conformance with the general policies, roles and responsibilities of each agency.

2. AUTHORITY

CERCLA, as amended by SARA, provides a comprehensive framework for response to the release or potential release of hazardous substances, pollutants, or contaminants which may present an imminent and substantial danger to the public health or welfare and the environment.

Executive Order 12580 delegates to the Director of FEMA the functions vested in the President by Sections 104(a) and the second sentence of 126(b) of the Act, to the extent they require permanent relocation of residents, businesses, and community facilities, or temporary evacuation and housing of threatened individuals not otherwise provided for. Executive Order 12580 also delegates to FEMA the functions vested in the President by CERCLA Section 101(24) to the extent SARA requires a determination by the President that temporary or permanent relocation should be undertaken as part of a remedial action. In addition, E.O. 12580 delegates to FEMA the functions vested in the President by sections 117(a) and (c), and 119 of SARA, to the extent such authority is needed to carry out the functions delegated to the Administrator by Sections 104(e)(7)(c), 113(k)(2), 119(c)(7), and 121(f)(1) of SARA. By agreement between EPA and FEMA, dated August 12, 1983, FEMA has redelegated to EPA this authority to make determinations on temporary or permanent

relocation as part of a remedial action. Similarly, by agreement between EPA and FEMA dated July 13, 1984, FEMA redelegated to EPA its authority to determine the need for temporary evacuation or housing as part of any removal action.

The NCP, in 40 CFR 300.33(b), provides that the On-Scene-Coordinator (OSC)/Remedial Project Manager (RPM) directs all Federal Fund-financed response efforts and coordinates all other Federal efforts at the scene of a discharge or release, subject to E.O. 12580. As stated above, E.O. 12580 delegates to the Director of FEMA the temporary and permanent relocation function, thus FEMA directs relocation activities. Section 300.33(b)(6) of the NCP requires the OSC/RPM to notify FEMA of situations which may also evaluate incoming information and immediately advise FEMA of potential major disaster situations under the "Disaster Relief Act of 1974" (P.L. 93-288).

Executive Order 12148 delegates to FEMA the President's authority to provide assistance under the Disaster Relief Act. FEMA designates the Federal Coordinating Officer to manage response to a major disaster or emergency. In such an event, the OSC/RPM coordinates response activities with the Federal Coordinating Officer. However, the OSC/RPM will still direct all Fund-financed response efforts, subject to E.O. 12580.

3. AGENCY RESPONSIBILITIES

3.1 EPA Responsibilities

EPA shall:

- Prepare all necessary environmental clearances including appropriate documentation to comply with the National Environmental Policy Act for relocation actions.
- Consult and coordinate with FEMA, as soon as possible (preferably 30 days in advance), when relocation is identified as an option at a site. See Attachments A and B for a sequence of events for permanent and temporary relocations.
- Determine in writing the need for temporary relocation as part of a removal, as well as a temporary or permanent relocation as part of a remedial response. In making such determinations, EPA will consult with the Centers for Disease Control (CDC) and appropriate State agencies regarding potential health risks which may affect the need for relocation. EPA will indicate the relocation boundaries and whether there is a need for FEMA to provide site security (temporary relocation only) and/or pay for decontamination or acquisition of personal property.

- . Provide for site security for vacant homes at sites where FEMA has not been requested to provide site security.
- . Dispose of all contaminated personal property acquired by FEMA.
- . Consult with FEMA on State commitments. EPA will not select permanent relocation as the cost-effective remedy until the State has provided EPA with written concurrence on the permanent relocation option and an acknowledgement of its responsibilities and commitments. EPA will make no public announcements concerning permanent relocation determinations until FEMA and the affected State have reached agreement in writing concerning respective roles and overall project management. FEMA will provide EPA with written concurrence on the permanent relocation option or advise EPA of any constraints regarding implementation of the relocation.
- . Provide non-site-specific funding to FEMA for tasks applying generally to CERCLA relocation activities (See section 7.1).
- . Provide site-specific funding to FEMA when relocation is selected as a removal or remedial option and will become part or all of a cleanup action. Mechanisms for providing site-specific funding are covered in Section 7.2 of this memorandum. EPA will make no public announcement concerning permanent relocation determinations until the EPA/FEMA site-specific Interagency Agreement is signed.
- . Assure that both EPA Headquarters and Regional Offices follow the sequence of events for a EPA/FEMA coordination for both temporary and permanent relocations as provided in Attachments A and B.
- . Take lead responsibility for developing and implementing a community relations plan for response action, as specified in the "Superfund Community Relations Policy" and "Community Relations in Superfund, A Handbook". EPA will consult and involve FEMA in developing and disseminating information related to the relocation as part of the community relations plan.
- . Cooperate and coordinate with FEMA in all efforts relating to any judicial action taken against potentially responsible parties for injunctive relief and cost recovery, including case initiation and prosecution and negotiation of settlements for any site which has had a temporary and/or permanent relocation. This shall include coordination in development and use of evidence and witnesses relating to property appraisals, title searches, property purchase negotiations, closing documentation, resident moving procedures and expenses, and resident relocation allowances and procedures.

- . - Provide FEMA with written notice of the verified amount of State credit, if FEMA notifies EPA that a State is claiming a credit under CERCLA Section 104(c)(3)(c), as amended by SARA Section 104(f), to be applied toward site-specific relocation activity. When FEMA notifies EPA in writing of the amount of credit to be applied toward the FEMA/State cost-share agreement, EPA will track total State credits applied to the site to ensure application of credits is properly documented. (For an explanation of claimed vs. verified State credits, see State Participation in the Superfund Program under "Documenting State Credits and Advance Match", Appendix C.)
- . Provide information on statutory credits available at sites to FEMA upon request.

3.2 FEMA Responsibilities

In the course of CERCLA response actions, FEMA is responsible for the permanent relocation of residents, businesses, and community facilities and/or temporary evacuation and housing of threatened individuals. FEMA shall:

- . Provide technical assistance to the OSC/RPM to support a determination of need for relocation, e.g., estimating the costs for relocation.
- . Establish policy, plans and other preparedness activities required to support relocation activities.
- . Implement temporary relocation, including negotiation of leases and rent reimbursements and provision of essential utility costs at the original residence and other miscellaneous relocation expenses.
- . Implement permanent relocation in accordance with P.L. 91-646, "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970".
- . Provide site security at sites involved with temporary relocation only, when requested by EPA.
- . Pay individuals for decontamination of household items and/or acquisition of contaminated personal property, when requested by EPA.
- . Support EPA in developing and carrying out community relations with regard to relocation activity.

- . Coordinate with States to ensure appropriate involvement in relocation actions, including negotiation of contracts and Cooperative Agreements. Critical issues which must be resolved in writing prior to EPA's selection of permanent relocation as the cost-effective remedy include:
 - (a) identification of State, and if required, Federal condemnation authorities for public health reasons. This would include commitments to condemn property as required during the project;
 - (b) identification of the State agency which will take title and written commitments to take title at the time of closing, to all real property acquired;
 - (c) identification of the lead for acquisition - FEMA or State; and,
 - (d) obtaining commitments for the State cost share.

Once agreement has been reached on these issues, FEMA will provide EPA with written concurrence on the permanent relocation option. If agreement has not been reached on any of these issues, FEMA will advise EPA of any constraints regarding implementation of the relocation.

Failure to reach agreement on any one of these issues may mean that a relocation cannot be conducted and other alternatives to permanent relocation must be considered.

- . Cooperate and coordinate with EPA in all efforts relating to any judicial action taken against potentially responsible parties for injunctive relief and cost recovery, including case initiation and prosecution and negotiation of settlements relative to any site for which there had been a temporary and/or permanent relocation. This shall include coordination in development and use of evidence and witnesses relating to property appraisals, title searches, property purchase negotiations, closing documentation, resident moving procedures and expenses, and resident relocation allowances and procedures. To the fullest extent of its ability, FEMA shall provide advance notice of property purchase negotiations and closings in its monthly reports to EPA.
- . Request written notification from EPA of the amount of verified credit, if a State notifies FEMA of its intention to claim a credit under CERCLA Section 104(c)(3)(c), as amended by SARA

- Section 104(f), and apply it toward relocation activity. FEMA will then confirm to EPA in writing the amount of credit to be applied to the FEMA/State agreement in accordance with Section 104(c) of CERCLA, as amended by Section 104(h)(5) of SARA. (For an explanation of claimed vs. verified State credits, see State Participation in the Superfund Program under "Documenting State Credits and Advance Match", Appendix C.)

- . Assure that both FEMA Headquarters and Regional Offices will follow the sequence of events of EPA/FEMA coordination for both temporary and permanent relocations as provided in Attachments A and B.

4. COORDINATION ON SITE-SPECIFIC ISSUES

4.1 Temporary Relocation

Temporary relocation as part of a removal action or remedial action may be considered by EPA in cases such as the following:

- . Due to health hazards inherent at the site. Such hazards may involve an emergency such as an imminent threat of fire or explosion, or they may involve a threat to public health resulting from exposure to hazardous substances.
- . While specific clean-up actions are underway, to protect the population at or near the site from hazards that may be created by the disturbance resulting from such cleanup actions (e.g., air-borne contaminants or danger of explosions or fire).

See Attachment A for a sample sequence of events for EPA/FEMA coordination during a temporary relocation.

4.2 Permanent Relocation

Permanent relocation of residents, businesses, and community facilities may be provided where it is determined that, alone or in combination with other measures, such relocation is more cost-effective than, and environmentally preferable to, the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare.

See Attachment B for a sample sequence of events for EPA/FEMA coordination during a permanent relocation.

5. STATE IMPLEMENTATION OF RELOCATION ACTIVITIES

FEMA will consult with the State concerning its willingness and capability to administer temporary and permanent relocation activities. When FEMA and the State agree that the State will administer all or part

of the relocation activity at a site, FEMA will provide funding to the State for allowable costs and obtain cost-share commitments, as appropriate. The OSC/RPM will continue to consult with the FEMA Project Officer on all relocation matters unless the FEMA Project Officer identifies a State contact for certain issues.

6. INFORMATION DISSEMINATION

Depending on the type of response action, all public information activities will be coordinated with the appropriate lead agency official and the EPA Regional Public Affairs Officer or State Official (when specified in a State Cooperative Agreement). EPA and FEMA agree to make a joint public announcement when relocation activity is determined to be necessary. FEMA agrees to consult in advance with the appropriate public information officer on any planned public statements to provide information about relocation. EPA will make any statements on relocation in consultation with FEMA. The only exception to this provision is in the event of a national disaster or emergency under the "Disaster Relief Act of 1974," when the Federal Coordinating Officer coordinates public information activities.

EPA and FEMA also recognize the need for coordination in all Congressional activities. This includes notifying and coordinating with each other's Office of Congressional Liaison prior to Congressional contacts concerning sites where relocation activity is involved and concerning legislative issues of mutual interest.

7. FUNDING MECHANISMS, REPORTING AND DOCUMENTATION

7.1 Non-Site-Specific Interagency Agreements

EPA and FEMA Headquarters Offices will develop an Interagency Agreement (IAG) to provide funding to FEMA for tasks applying generally to CERCLA relocation activities, such as training of FEMA personnel involved in relocations and development of guidance on relocation activities. In limited circumstances, this type of IAG may also be used to fund site-specific activities occurring before a remedy or removal is selected, such as assistance in planning for a relocation or preparing a relocation option. Such expenditures shall be tracked on a site-specific basis.

7.2 Site-Specific Interagency Agreements

Temporary and permanent relocation actions will be funded through separate site-specific IAGs between EPA and FEMA. These IAGs shall reflect FEMA's estimated amount of expenditures for relocation activities. These site-specific IAGs may also include assistance to EPA in planning for a relocation or preparing a relocation option before a remedy or removal is selected. For IAGs covering remedial relocation activities, there shall be separate obligations under each IAG for planning and implementation tasks to clarify state cost-share requirements.

7.3 Financial Management and Reporting Requirements

As manager of the Hazardous Substances Superfund, EPA is required by statute or regulation to follow certain accounting and reporting procedures. Some of these procedures are unique to the Trust Fund. FEMA agrees to assist and comply with the following:

- . FEMA will provide EPA with information, as specified by EPA, to prepare annual operating plans, including estimated obligations by object class.
- . EPA will promptly inform FEMA of any applicable ceilings on obligations for administrative expenses and/or travel, and FEMA will comply with these ceilings.
- . As the agency receiving the transfer allocations, FEMA will submit the Report on Budget Execution Standard Form 133 (SF-133) to EPA within fifteen calendar days after the close of each calendar month. The SF-133 must reflect total obligational authority available.
- . FEMA will prepare a quarterly Standard Form (SF-225), "Report on Obligations," which reflects obligations to date, by object class. This report, which is required by the Department of the Treasury Fiscal Requirements Manual sub-section 4440.30b, indicates that the transfer allocation recipient is responsible for its preparation.
- . FEMA will prepare an annual Treasury Financial Statement 2108 (TFS-2108) year-end closing statement in accordance with Department of Treasury regulations.
- . OMB - Circular A-87 is applicable to any Cooperative Agreement issued by FEMA.
- . The SF-133, SF-225, and TFS-2108 reports should be sent to:

Financial Reports and Analysis Branch
Financial Management Division
U.S. Environmental Protection Agency
Room 3623M PM-226
401 M Street, S.W.
Washington, D.C. 20460

- . FEMA will submit monthly reports as specified in this section, as well as program status reports on relocation actions, on a site-specific basis, for all site-specific IAGs and activities.

Because all cash authority available under the Hazardous Substances Superfund is invested by the Department of the Treasury, EPA will prepare Standard Form 1151 non-expenditure transfer authorizations only to the extent needed to fund outlays. EPA will transfer funds quarterly, or more often if required, via SF-1151, based on estimated outlay plans prepared under specific Interagency Agreements. This arrangement will enable EPA to meet the requirements of the Department of the Treasury to divest only those monies required to meet necessary expenditures.

If actual costs are expected to exceed estimated expenditures, EPA will transfer additional funds as required. A revised outlay plan will serve as authority to transfer additional funds via SF-1151.

If actual outlays are significantly less than estimated in the outlay plan, EPA may postpone or reduce the next scheduled transfer or request the return of idle cash balances. FEMA will report closeouts of specific relocation actions and any unexpended balance. Based on these unexpended balances, EPA may postpone or reduce the next scheduled transfer or request the return of idle cash as appropriate.

Contacts within EPA and FEMA to ensure coordination in carrying out the "Financial Management and Reporting Requirements" section of this Agreement are:

Budget Formulation and
Control Branch Chief
U.S. Environmental
Protection Agency
Room W709B, PM-225
401 M Street, SW
Washington, D.C. 20460

Deputy Chief, Accounting
Office of the Comptroller
F E M A
500 C St., S.W., Room 719
Washington, D.C. 20460

7.4 Documentation and Cost Recovery

FEMA and EPA shall cooperate and coordinate in all efforts relating to any judicial action taken against responsible parties for injunctive relief and cost recovery, including case prosecution and negotiation of settlements relative to any site for which there has been a temporary and/or permanent relocation. This shall include coordination in development and use of evidence and witnesses relating to property appraisals, title searches, property purchase negotiations, closing documentation, resident moving procedures and expenses, and resident relocation allowances and procedures. To the full extent of its ability under its Cooperative Agreements and contracts with States and political subdivisions thereof, FEMA shall provide advance notice of property purchase negotiations and closings in its monthly reports to EPA.

EPA, acting as manager of The Hazardous Substances Superfund, requires current information on CERCLA response actions and related obligations of CERCLA funds for these actions. In addition, CERCLA authorizes EPA to recover from responsible parties all government costs incurred during a response action. To ensure successful recovery of CERCLA funds, FEMA shall maintain site-specific accounts and documentation. FEMA will organize and retain site-specific files for 10 years after the completion of the project or until transferred to EPA for permanent retention. These site-specific files will include documentation (e.g., vouchers, billing statements, evidence of payment, audit reports) of direct costs as follows:

- . FEMA employee hours and signed salary cost records (timesheets)
- . FEMA employee travel and per diem expenses (travel authorizations, reimbursement vouchers, and all appropriate hotel, car rental, etc., receipts)
- . Receipts for materials, equipment, and supplies
- . Contract costs (paid vouchers, treasury schedules and a copy of contract)
- . State Cooperative Agreement and contract costs (invoices, letters of credit, drawdown records, etc.)
- . Any other direct costs associated with relocation not included in the above categories.

The Cooperative Agreement entered into by FEMA and the State shall require the State to also maintain the above accounts and documentation.

For cost recovery actions, within three weeks from the date of a request from EPA or the Department of Justice (DOJ), FEMA will provide to EPA or DOJ site-specific costs and copies of the back-up documentation which support those costs. FEMA will provide EPA with a contact for obtaining such site-specific accounting information and documentation. This cost information and documentation must also be available for audit or verification upon request of the EPA Inspector General.

As original documents may be requested for cost recovery actions, FEMA will provide access to the original documentation when requested. FEMA will notify EPA in advance of placing any project files in storage or archives.

8. AMENDMENTS

This agreement may be amended at any time by mutual agreement of EPA and FEMA. Amendments must be in writing and must be signed by appropriate FEMA and EPA officials.

9. PERIOD OF AGREEMENT

This agreement will continue for a period of 4 years, subject to applicable law. This agreement may be terminated upon notification by either EPA or FEMA to the other party. A minimum of ninety days advance written notice of termination is required.

10. EFFECTIVE DATE

This agreement will become effective upon signature of both parties.

Associate Director
State and Local Programs
and Support
FEMA

Assistant Administrator
Office of Solid Waste and
Emergency Response
EPA

Date: _____

Date: _____

APPENDIX L

DRAFT MEMORANDUM OF UNDERSTANDING BETWEEN EPA AND THE U.S. COAST GUARD

***** DRAFT *****

A FINAL VERSION WILL BE FORWARDED WHEN AVAILABLE

I. PURPOSE

This Memorandum of Understanding (MOU) supersedes the MOU between the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA) of January 4, 1982 and any subsequent amendments. The MOU establishes accounting, contracting, and fund management control procedures for USCG response actions under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and EPA response under Section 311 of the Federal Water Pollution Control Act of 1972 (FWPCA), as amended.

II. AUTHORITY

Section 104 of CERCLA (42 USC 9604) authorizes the President to respond to releases or threats of releases into the environment of hazardous substances or pollutants or contaminants which may present an imminent and substantial danger to the public health or welfare and the environment. Executive Order 12316 delegates certain authority and responsibility for response to the Administrator of the EPA and the Secretary of Transportation. Similarly, Executive Order 11735 delegates to EPA certain authority and responsibilities under FWPCA to respond to oil spills. The USCG and the EPA are entering into this agreement to carry out their joint responsibilities under CERCLA, the Executive Orders and FWPCA.

III. SCOPE:

A. CERCLA COSTS

Costs incurred by the USCG in the course of carrying out its responsibilities pursuant to CERCLA, Executive Order 12316 and the National Contingency Plan (NCP) are funded by the Hazardous Substance Response Trust Fund administered by EPA. Two major categories of costs may be incurred under the Trust Fund: vendor costs and non-vendor costs.

1. Vendor Costs

The USCG and EPA agree that vendor costs are contractor costs incurred by the USCG in response to a release or threat of a release of hazardous substances or pollutants or contaminants which may present an imminent and substantial danger to the public health or welfare and the environment. Vendor costs qualify as allowable uses of the Hazardous Substance Response Trust Fund when USCG undertakes response activities pursuant to CERCLA, Executive Order 12316, and the National Oil and Hazardous Substances Contingency Plan (NCP). Examples of vendor costs include, but are not limited to the following:

- contractor and consulting costs
- lease or rental of equipment when supplied by the response contractor
- supplies, materials and equipment (including transportation costs) procured for the specific response activity by the response contractor.

Contracting and accounting procedures for vendor costs are discussed under Section IV.

2. Non-Vendor Costs

Non-vendor costs generally include all other costs incurred by the USCG directly in support of response activities pursuant to CERCLA, Executive Order 12316 and the NCP. Such costs are reimbursed by EPA via interagency agreements (IAGs) between EPA and USCG. Typically, non-vendor costs fall into two groups: site-specific, out-of-pocket expenses and the cost of carrying out on-going program functions. These groups are discussed below

2.1 Out-Of-Pocket Expenses

Out-of-pocket expenses incurred by USCG in undertaking a specific response action include but are not limited to the following items:

- travel and per diem for military and civilian USCG personnel
- salary costs for military and civilian USCG personnel including civilian overtime costs
- fuel for USCG vessels, aircraft or vehicles used in support of a response activity
- replacement or repair cost for equipment owned by the USCG.

Out-of-pocket costs incurred at a CERCLA incident by the USCG will be reimbursed by EPA through a site-specific IAG. These IAGs will be prepared in accordance with the procedures in Appendix A.

2.2 Ongoing Responsibilities Costs

Ongoing responsibilities costs refers to those costs incurred by the USCG in providing training and maintaining response capabilities as described in the U.S. Department of Transportation (DOT), USCG publication Policy Guidance for Response to Hazardous Chemical Releases

(COMDTINST M16465.30), Chapter 1. These capabilities include performing preliminary assessments to establish whether an incident meets the criteria of a CERCLA removal, monitoring non-federal removal actions, conducting medical monitoring, and maintaining information systems, the National Response Center, work force and enforcement activities. Funding for these costs is transferred annually to the USCG in the form of an ongoing responsibilities IAG. These are discrete IAGs for each fiscal year's transfer of funds.

B. FWPCA COSTS

The USCG and EPA agree that EPA can incur contractor costs in response to oil discharges. These costs qualify as allowable uses of the FWPCA 311(k) Fund when the EPA undertakes response activities pursuant to FWPCA 311, Executive Order 11735, and the National Contingency Plan (NCP). Examples of vendor or contractor costs are the same as those listed in Section A.1 above. Procedures for reimbursement of EPA out-of-pocket expenses and other non-vendor costs incurred by EPA in the course of response, with the exception of personnel salaries, are covered in 33 CFR 153, "Control of Pollution By Oil and Hazardous Substances, Discharge Removal".

IV. CONTRACTING AND ACCOUNTING:

A. CERCLA

The USCG may enter into response contracts in either of two situations:

- When the USCG OSC is acting in the capacity of the first responding Federal official, pursuant to the National Contingency Plan; or
- When the USCG is the lead Federal agency pursuant to the authority delegated under Executive Order 12316 and retained by the USCG in Section (c) of the Instrument of Redelegation, executed 2 October 1981 by the Secretary of Transportation and consented to on 9 October 1981 by the Administrator of the Environmental Protection Agency.

In the first case, the contract remains in effect only as long as the USCG OSC continues to serve in the capacity of first responding Federal official. The contract thus is terminated when the EPA OSC assumes responsibility for Federal response. In the second case, the contract is effective while the USCG serves as lead agency.

The USCG shall use one of the two following contracting systems in responding to CERCLA incidents:

- the USCG Contracting System established to respond to oil and hazardous substances discharges under the authority of Section 311 of the FWPCA, as amended, or
- the EPA Emergency Response Cleanup Services (ERCS) contract system.

The USCG and the EPA agree to the following procedures.

1. USCG Contracting System

For each incident where CERCLA funds are obligated, the USCG OSC must obtain a ten-digit account number and a six-digit document control number from the EPA HQ Emergency Response Division (ERD). Telephone numbers for business hours (Monday-Friday, 8:30 AM to 5:00 PM EST) are listed in Appendix B. For incidents which occur during non-business hours, the accounting data must be obtained during business hours the following workday. The USCG OSC shall submit an initial pollution report (POLREP) within 72 hours of initiating Federal Response to EPA HQ, Response Operations Branch, Emergency Response Division and the appropriate EPA Regional Contact (see Appendix B for addresses). This POLREP shall provide, as a minimum, the following information:

- Name and phone number of OSC
- Location, nature of the incident, and Coast Guard District in which incident occurred
- Nature of response activities to be performed
- Estimated, total costs to-date (show vendor costs and out-of-pocket costs separately).

Appendix C of this MOU provides the address and telephone numbers of USCG District Comptrollers who can be contacted by EPA on USCG Contracting System matters.

2. Activation of ERCS by USCG

To activate the ERCS, the USCG OSC must contact the EPA HQ ERCS Contracting Office. During business hours (Monday through Friday 8:30 AM to 5:00 PM EST), the ERCS Contracting Officer can be reached by calling the number listed in Appendix B. During non-business hours (after 5:00 pm EST on weekdays and on Saturday, Sunday, and holidays) USCG personnel should contact the National Response Center (800-424-8802), identify

himself/herself and ask to be put in contact with EPA's on-duty ERCS Contracting Officer.

Once the USCG OSC and the ERCS Contracting Officer have established contact, the ERCS Contracting Officer will consult with the OSC to:

- determine the scope and duration of response activities (including the response time performance period)
- ascertain the appropriate ERCS Zone Contractor
- develop a scope of work
- determine the delivery order ceiling
- issue a delivery order.

The ERCS Contracting Officer is authorized to approve ERCS usage up to \$1 million per ERCS zone per year, for USCG response actions.

During non-business hours, the ERCS Contracting Officer may issue a verbal delivery order, which will be followed up within 48 hours by a written delivery order. Accounting data will be obtained by the ERCS Contracting Officer. Once the delivery order has been issued, the Contracting Officer shall direct the ERCS contractor to immediately contact the USCG OSC to make the necessary arrangements for starting work. The Contracting Officer shall notify the ERCS project officer who then notifies the Regional Deputy Project Officer regarding fund activation.

3. Accounting Procedures

Specific accounting information is required by the EPA Financial Management Office in order to process both USCG contracts and ERCS delivery orders. The USCG should obtain the information when using their own SF 347 Purchase Orders and should include the information on all contract documents. The ERCS Contracting Officer will enter the information on all ERCS Delivery Orders. Five accounting codes are required. They are:

Appropriation Number: This number is permanently assigned to the trust fund:

68/20X8145

Account Number: A ten-digit number is obtained from EPA HQ ERD at the number listed in Appendix B. An accounting number is comprised in the following way:

YTFA72RESS

Y = Last digit of the fiscal year, e.g.
for FY 85 Y=5

R = EPA Region where the incident occurs

SS = Site/Spill identification number
for each separate incident

Document Control Number: The six-digit document control number (DCN) is obtained from EPA HQ ERD (See Appendix B for phone number) for each financial transaction associated with the incident. Each contract and contract modification to increase funding ceiling must have a unique DCN. Ceilings correspond to a specific DCN. For example, if two clean-up contractors are required, then two separate DCNs are needed. Similarly, if the dollar amount of a contract is increased (modified) then another DCN must be obtained.

Object Class: This number (2535) is permanently assigned to provide response contracting funds only.

Amount of contract or delivery order in dollars: \$ _____.

Additionally, for USCG contracts, the USCG District Contracting Officer shall ensure that the USCG contract number and the EPA accounting codes (appropriation number, account number, document control number, object class and dollar amount) are specified in the contract or other obligating document. He shall ensure that the EPA accounting codes and USCG contract number are provided to the contractor and shall retain the original contract or delivery order.

4. Transmittal of Contract to EPA

A legible, certified true copy of the contract or delivery order shall be submitted by certified mail within 72 hours of award to the EPA Financial Management Officer at the address provided in Appendix B. The USCG is responsible for forwarding contracts issued under the USCG Contracting System, and EPA will forward copies of ERCS delivery orders. Whenever a Basic Ordering Agreement (BOA) is utilized, a certified copy of the BOA should be transmitted to the EPA Financial Management Officer in order to verify the SF 347 Purchase Orders and invoices.

5. Processing of Contractor Invoices

5.1 Contractor Responsibilities:

The contractor shall submit a copy of the invoice to the USCG OSC and send the original invoice to the EPA disbursing office at the address in Appendix B. The contractor will ensure the USCG contract number or delivery order number and the EPA accounting codes (appropriation number, account number, document control number, object class and dollar amount) are included on the invoice and its copy. Contractors should number each invoice sequentially beginning with one (1) and make a notation of "FINAL INVOICE" on the last invoice under the contract or delivery order.

5.2 USCG OSC Responsibilities

The USCG OSC must certify each invoice as correct and proper. A correct and proper invoice is one in which the services performed are acceptable and consistent with the services billed and the accounting data is properly transcribed. The OSC should designate an alternate who will be responsible for voucher certification in his/her absence and notify the EPA Contracting Officer accordingly. The following certification statement must accompany each invoice:

"I, _____ (OSC's NAME), certify to the best of my knowledge and belief that the services shown on this invoice have been performed and are accepted.

(OSC's SIGNATURE) Date: _____

The USCG OSC will forward by certified mail the

certified invoice to the EPA disbursing office (See Appendix B for address) within three (3) business days of receiving the invoice from the contractor.

The USCG OSC shall not certify an invoice which includes any discrepancies between services performed and services billed. In the event there is a discrepancy, the USCG OSC shall immediately take appropriate action to notify the contractor and resolve the discrepancy. If the discrepancy cannot be resolved within three (3) days, the EPA disbursing office must be notified. For ERCS contracts, the OSC shall notify the ERCS Contracting Officer to direct the disbursing office to withhold payment on the disputed amount. For USCG contracts, the USCG OSC may direct withholding of payment for disputed amounts by noting on the invoice the following signed statement: "This invoice contains unresolved discrepancies. DO NOT PAY THIS INVOICE UNTIL YOU RECEIVE WRITTEN NOTIFICATION THAT THE DISCREPANCIES HAVE BEEN RESOLVED AND THE INVOICE REISSUED."

_____(OSC's SIGNATURE)

Date: _____

5.3 EPA Responsibilities

EPA is responsible for processing invoices and making payments in a timely manner. Payments are normally made within 30 days after invoice receipt. Payment is contingent on the EPA disbursing office's receipt of the original invoice from the contractor and USCG OSC's certified copy of the invoice and receipt of a certified copy of the contract. In case of discrepancies, payments will be made after such discrepancies are resolved, and the invoice is reissued and received at the disbursing office. However, partial payment may be made for any undisputed amounts.

The disbursing office will not pay any response costs in excess of the dollar amount of the contract or delivery order. In the event a contractor's invoice exceeds the dollar amount of the contract or delivery order, the EPA disbursing office will refer the matter to the USCG District Contracting Officer or EPA Contracting Officer.

6. Management and Oversight of ERCS Contracts

USCG OSCs have the same responsibilities as EPA OSCs for managing and overseeing ERCS contractors. The OSC is responsible for preparing daily work orders, monitoring contractor progress, and reviewing that progress with the contractor. The OSC shall adhere to the detailed requirements set forth in EPA's Emergency Response Cleanup Services Contracts (ERCS) User's Manual (October 1983) and updates. EPA will provide the USCG with copies of the manual, copies of any updates and with training, as necessary.

7. Contract Performance Evaluation:

The USCG OSC shall prepare a Contractor Performance Summary report upon completion of a CERCLA response conducted by an ERCS contractor. The report shall be forwarded to the ERCS Project Officer (see Appendix B for addresses) who will forward a copy to the Regional Deputy Project Officer. The ERCS Users Manual, Section V, contains the format for this report. All ERCS contractors are eligible for financial reward from the Performance Incentive Pools for outstanding performance. Awards are based on a performance evaluation by USCG OSCs and EPA Headquarters personnel. USCG OSCs can nominate an ERCS contractor for such an award. Consult the ERCS User's Manual for more information.

B. FWPCA

When activating the 311(k) Fund for oil spill response, the EPA OSC shall contact the appropriate USCG District in accordance with that District's established procedures. The USCG District is responsible for providing the Federal Project Number and committing the funds. The EPA OSC is responsible for management and oversight of the contractor, for requesting necessary ceiling increases, for certifying contractor invoices, and for compliance with response procedures contained in 33 CFR 153.

V. FINANCIAL MANAGEMENT

A. CERCLA

The USCG and EPA agree that the USCG may obligate up to \$1,000,000 per incident without prior approval from EPA. Total costs limited by the \$1 million restriction are:

Commercial cleanup contracts
Analytical services

Other Federal agency costs (e.g. NIOSH, FEMA)
USCG out-of-pocket expenses

Requests to obligate amounts in excess of the \$1,000,000 limit must document the criteria of CERCLA 104(c)(1) via the "Exemption to \$1 Million Limit Sample Action Memorandum" (See Appendix D). Requests shall be approved by the Assistant Administrator, Office of Solid Waste and Emergency Response, who acts as the Manager of the CERCLA Hazardous Substance Response Trust Fund. Requests shall be submitted to the Response Operation Branch, Emergency Response Division (ERD), Office of Emergency and Remedial Response.

ERD will process the request in accordance with EPA delegations of authority and procedures in effect at the time. The USCG will modify its existing contracts or request that the ERCS Contracting Officer modify any existing delivery orders to reflect each ceiling increase. Certified copies of the contract or delivery order modification must be submitted to EPA's disbursing office. The USCG is also authorized to grant six-month exemptions for USCG CERCLA responses, where the response meets the statutory criteria of CERCLA 104(c)(1).

B. FWPCA

EPA OSC's shall follow the specific procedures established by the appropriate USCG District Office which serves as the local 311(k) Fund Manager and contracting office. The initial ceiling request should reflect the OSC's best estimate of the cost of the response. The EPA OSC can request and receive approval of a financial ceiling for the spill of up to \$1,000,000. Total cumulative obligations over the amount require authorization by the Commandant (G-W).

Contract procedures must follow the guidance of the cognizant USCG District Contracting Office. If the Coast Guard has BOAs among contractors for the locality in which the oil spill emergency takes place, the EPA OSC is authorized to orally place an order or orders for a cumulative maximum amount not to exceed \$50,000 provided that:

- (1) The situation is of such urgency that contacting the USCG contracting office prior to placement of an oral order would cause undue delay and result in further environmental hazard;
- (2) The BOA provides for the placement of orders by EPA OSCs; and

- (3) The OSC documents his/her efforts to consider all available BOAs in the initial POLREP or in a separate document to be submitted to the contracting officer within two working days of placement of any oral order. This documentation shall include, as a minimum, the following:
 - (a) The names of the contractors contacted and the contractor's point of contact.
 - (b) If the response times and rates quoted by any one contractor were different from the terms of the BOA, and if so, what the contractors's quoted rates and times were.
 - (c) The rationale for awarding an order to the successful offeror, i.e. "Justification For Other Than Full and Open Competition", as required by Part 6 of the Federal Acquisition Regulation (FAR).

For services not listed on an existing BOA, or in the absence of a BOA, the EPA OSC may request that the USCG modify the contract or permit supplemental contracting. For questions on financial management matters, contact the appropriate USCG District office (see Appendix C for address and telephone numbers).

VI. COST CONTROL AND DOCUMENTATION

A. CERCLA

EPA, acting as manager of the Hazardous Substance Response Trust Fund, requires current information on CERCLA response actions and related obligations of CERCLA funds for these actions. In addition, CERCLA authorizes EPA to recover from responsible parties all government costs incurred during a response action. To ensure successful recovery of CERCLA funds, USCG shall maintain site specific accounts for all response contractor costs and site specific IAGs, by documenting the following:

- . USCG personnel hours and salary costs
- . USCG personnel travel and per diem expenses (travel authorizations, paid vouchers, and treasury schedules)
- . Contract costs (paid vouchers, treasury schedules, and a certified copy of the contract)
- . Receipts for materials, equipment, and supplies
- . Sample collection and analysis costs

Standard costs for the use of USCG equipment, vessels, aircraft or vehicles used in support of a response activity

Any other costs associated with the removal action not included in the above categories.

EPA must also have documentation of the fulfillment of the criteria of CERCLA 104(a) and the National Contingency Plan for undertaking a removal action. For cost recovery actions, upon request from EPA or the Department of Justice (DOJ), USCG will provide to EPA or DOJ, site-specific costs and copies of the back-up documentation which support those costs. USCG will provide EPA with a contact for obtaining such site-specific accounting information and documentation. This cost information and documentation must also be available for audit or verification on request of the EPA Inspector General.

B. FWPCA

The Coast Guard, acting as manager of the 311(k) Pollution Fund, requires current information on FWPCA response actions and related obligations of FWPCA funds for these actions. In addition, FWPCA authorizes the USCG to recover from responsible parties all government costs incurred during a response action.

In order to ensure successful recovery of FWPCA funds, EPA shall maintain site specific records for all response contractor costs and document the following:

- . Employee hours and salary costs (Timesheets)
- . Employee travel and per diem expenses (travel authorizations, paid vouchers, and treasury schedules)
- . Contract costs (paid vouchers, treasury schedules, and a certified copy of the contract)
- . Receipts for materials, equipment and supplies
- . Sample collection and analysis costs
- . Any other costs associated with the removal action not included in the above categories.

The USCG must also document fulfillment of the criteria the National Contingency Plan requires for undertaking a removal action. This includes documentation that proper notice was made to the responsible party before commencing the removal action.

For cost recovery actions, upon request from USCG or the Department of Justice (DOJ), EPA shall provide to USCG or DOJ, site-specific costs and copies of the back-up documentation which support those costs. EPA shall provide USCG with a contact for obtaining such site-specific accounting information and documentation. This cost information and documentation must also be available for audit or verification on request of the DOT Inspector General.

VII. REPORTING REQUIREMENTS

A. CERCLA

The USCG shall submit pollution reports (POLREPS) to the Director, Emergency Response Division, EPA (see Appendix B) to relate CERCLA response and fund obligation data. The initial POLREP shall be submitted within 72 hours of initiating a CERCLA response. Progress POLREPS should be submitted on a routine basis. Special POLREPS shall be submitted to report any major unanticipated event at approved response actions (e.g. fires, explosions and all accidents). Finally, for all CERCLA-financed USCG removals, the USCG OSC shall submit to EPA HQ ERD (via USCG HQ) within 60 days of the conclusion of the response a final OSC report that meets the requirements of the pollution report section of the NCP.

B. FWPCA

The EPA OSC shall routinely report progress to the appropriate USCG District Office through POLREPS or any other means specified by the District Office. In addition, the EPA OSC shall notify the USCG District Office as soon as possible to report any major unanticipated events at active response sites. Finally, the EPA OSC shall complete and submit to the USCG District Office within 60 days of the conclusion of the response a final OSC report that meets the requirements of the pollution report section of the NCP.

VIII. PERIOD OF AGREEMENT

This MOU shall continue in effect until modified or amended by the assent of both parties. Either party can terminate the MOU by giving a thirty (30) day written notice. Nothing in

this MOU is intended to diminish or otherwise affect the statutory authority of the USCG or the EPA. This MOU shall become effective on the date of the last signature below.

Commodore, U.S. Coast Guard
Chief, Office of Marine
Environment and Systems

DATE: _____

Assistant Administrator,
Office of Solid Waste and
Emergency Response

DATE: _____

PROCEDURES FOR USCG SITE-SPECIFIC
INTERAGENCY AGREEMENTS (IAGs)

When the Coast Guard wishes to submit an IAG for reimbursement of out-of-pocket non-vendor costs incurred at Coast Guard-lead CERCLA incidents, the following procedures shall be followed:

1. The Coast Guard OSC shall contact the EPA HQ Superfund Funds Control Center (FCC) (475-8102) to request preparation of IAG documentation and to provide a cost breakdown and other site specific information. To ensure reimbursement of expenditures, the request, including a completed "Certification for Emergency Response Activities" form (sample attached), must be submitted no later than two weeks after completion of the response.
2. The Superfund Funds Control Center shall prepare the IAG package and route four (4) original IAG copies and a commitment notice through the EPA HQ Response Operations Branch (ROB). ROB shall prepare a decision memo, attach it to the IAG package and forward the package to the Director, Office of Emergency and Remedial Response (OERR) for review and sign-off.
3. The Director, OERR shall sign the four (4) originals and return them to the Superfund FCC for transmittal to the EPA Grants Administration Division (GAD) (EPA Mail Code PM-216) for review and sign-off.
4. Following GAD sign-off, the IAG is transmitted to the Chief, USCG Environmental Response Division at the following address:

Commandant, G-WER
U.S. Coast Guard
2100 Second St., S.W.
Washington, D.C. 20593
ATTN: Chief, Environmental Response Division

5. The Coast Guard shall review and sign all four (4) originals, retain one signed original and return the other three (3) to EPA GAD.
6. GAD shall retain one signed original and transmit one original to the Financial Management Division (FMD), Cincinnati for obligation and one original to the EPA HQ FCC who in turn shall forward a copy to the EPA HQ Response Operations Branch.

7. Certified Coast Guard vouchers shall be submitted by USCG for processing and payment to EPA FMD, Cincinnati at the following address:

EPA Cincinnati Accounting Operations Office
ATTN: Financial Management Officer
26 West St. Clair Street
Cincinnati, OH 45268
(FTS-684-7831)

8. Cincinnati forwards a "Contract Status Notification" form (EPA Form 2550-19) to the EPA Superfund FCC for approval prior to payment.

NOTE:

The above procedures apply to USCG lead responses. When USCG assists at EPA-lead responses, requests for reimbursement of non-vendor out-of-pocket costs should be referred to the appropriate EPA Region. In such cases, the EPA OSC will be responsible for certifying USCG incurred expenses.

CERTIFICATION FOR EMERGENCY RESPONSE ACTIVITIES
at

_____ to _____

OBLIGATIONS:

| | |
|-----------------------------------|-------|
| Access Control | _____ |
| USCG Equipment | _____ |
| USCG Personnel | _____ |
| USCG Reserve Personnel | _____ |
| USCG Civilian Personnel | _____ |
| Travel and Per Diem Expenses | _____ |
| Equipment and Supply Expenditures | _____ |
| State Reimbursable Activities | _____ |
| Removal Activities Damage Claims | _____ |
| Total | _____ |

OSC CERTIFICATION

I certify to the best of my knowledge and belief that the amounts shown above are proper, that the services have been performed and accepted, and such expenditures do not exceed appropriate monetary ceilings.

USCG On-Scene Coordinator (original signature)

Date

EPA CONTACTS

| <u>FUNCTION</u> | <u>ADDRESS/PHONE</u> |
|--|--|
| - Accounting Numbers, Initial and Progress POLREPs | Director, Emergency Response Division Office of Emergency and Remedial Response EPA HQ (202) 382-2188 or FTS 382-2188 (TWX # 710-8229269) Telex #892-786-01) |
| - Reporting; \$1,000,000 Exemption Requests | Response Operations Branch Emergency Response Division Office of Emergency and Remedial Response EPA HQ (202) 382-2188 or FTS 382-2188 |
| - ERCS Contractor Evaluation | ERCS Project Officer Response Operations Branch Emergency Response Division Office of Emergency and Remedial Response EPA HQ (202) 382-2205 or FTS 382-2205 |
| - ERCS Delivery Orders M-F 8:30 - 5:00 EST | Procurement Branch A Procurement and Contracts Management Division EPA HQ (202) 382-3210 or FTS 382-3210 |
| Non-business hours | National Response Center 800-424-8802 |

| <u>FUNCTION</u> | <u>ADDRESS/PHONE</u> |
|--|--|
| Disbursement (invoices, copies of contracts) | Financial Management Officer Accounting Operations Office (MD-32) Environmental Protection Agency Research Triangle Park, NC 27711 (919) 541-3041 FTS 8-629-3041 |
| Regional Reporting | |
| Region 1 | Don Berger, OHM Coordinator Oil and Hazardous Materials Section USEPA, Region 1 New England Regional Lab 60 Westview Street Lexington, MA 02173 FTS 8-860-4368 |
| Region 2 | Bruce Sprague, OHM Coordinator Response and Prevention Branch USEPA, Region 2 Woodbridge Avenue, Bldg. 209 Edison, NJ 08827 FTS 8-340-6656 |
| Region 3 | Dennis Carney, OHM Coordinator Superfund Branch USEPA, Region 3 (3-HW-22) 841 Chestnut Street Philadelphia, PA 19107 FTS 8-597-0992 |
| Region 4 | Robert Jourdan, OHM Coordinator Superfund Branch USEPA, Region 4 345 Courtland Street, N.E. Atlanta, GA 30365 FTS 8-257-3931 |
| Region 5 | Bob Bowden, OHM Coordinator Emergency Response Branch USEPA, Region 5 230 South Dearborn Street Chicago, IL 60604 FTS 8-886-6236 |

| <u>FUNCTION</u> | <u>ADDRESS/PHONE</u> |
|-----------------------------|---|
| Regional Reporting - Cont'd | |
| Region 6 | Charles Gazda, OHM Coordinator Emergency Response Branch USEPA, Region 6 - 6E-E 1445 Ross Avenue Dallas, TX 75202 FTS 8-255-2270 |
| Region 7 | Charles Hensley, OHM Coordinator Emergency Planning & Response Branch USEPA, Region 7 25 Funston Road Kansas City, KS 66115 FTS 8-757-3888 |
| Region 8 | John Giedt, OHM Coordinator Emergency Response Branch USEPA, Region 8 One Denver Place 999 18th Street (8HWM-ER) Denver, CO 80202-2413 FTS 8-564-7528 |
| Region 9 | Terry Brubaker, OHM Emergency Response Section USEPA, Region 9 215 Fremont Street San Francisco, CA 94105 FTS 8-454-7511 |
| Region 10 | Jim Everts, OHM Coordinator Superfund Branch USEPA, Region 10 1200 Sixth Avenue Seattle, WA 98101 FTS 8-399-1263 |

U.S. COAST GUARD CONTACTS

I. FWPCA Financial Management Matters

Project Numbers, Ceiling Authorization, and Authorization to Exceed \$1M Ceiling should be directed to the following:

Commander (mep)
First Coast Guard District
150 Causeway Street
Boston, MA 02564

FTS: 223-6915 Commercial: 617-223-6915
Nights, Weekends, Holidays:
FTS: 223-3644 Commercial: 617-223-3644

Commander (mep)
Second Coast Guard District
Federal Building
1430 Olive Street
St. Louis, MO 63103

FTS: 2169-4655 Commercial: 314-425-4655
Nights, Weekends, Holidays:
FTS: 279-4614 Commercial: 314-425-4614

Commander (mep)
Third Coast Guard District
Governors Island
New York, NY 10004

FTS: 664-7154 Commercial: 212-668-7154
Nights, Weekends, Holidays:
FTS: 664-6463 Commercial: 212-668-6463

Commander (mep)
Fifth Coast Guard District
Federal Building
431 Crawford Street
Portsmouth, VA 23705

FTS: 827-9383 Commercial: 804-398-6383
Nights, Weekends, Holidays:
FTS: 827-6231 Commercial: 804-398-6231

Commander (mep)
Seventh Coast Guard District
Federal Building
51 S.W. 1st Ave.
Miami, FL 33130

FTS: 350-5276 Commercial: 305-350-5276
Nights, Weekends, Holidays:
FTS: 350-5611 Commercial: 305-350-5611

Commander (mep)
Eighth Coast Guard District
Hale Boggs, Federal Building
500 Camp Street
New Orleans, LA 70130

FTS: 682-6296 Commercial: 504-589-6296
Nights, Weekends, Holidays:
FTS: 682-6225 Commercial: 504-589-6225

Commander (mep)
Ninth Coast Guard District
1240 East 9th Street
Cleveland, OH 44199

FTS: 942-3919 Commercial: 216-522-3919
Nights, Weekends, Holidays:
FTS: 942-3984 Commercial: 216-522-3984

Commander (mep)
Eleventh Coast Guard District
400 Ocean Gate Boulevard
Long Beach, CA 90822

FTS: 984-9301 Commercial: 213-590-2301
Nights, Weekends, Holidays:
FTS: 984-9225 Commercial: 213-590-2225

Commander (mep)
Twelfth Coast Guard District
Bldg. 51
Government Island
Alameda, CA 94501

FTS: 536-3465 Commercial: 415-437-3465
Nights, Weekends, Holidays:
FTS: 536-3700 Commercial: 415-437-3700

Commander (mep)
Thirteenth Coast Guard District
Federal Building
915 Second Avenue
Seattle, WA 90822

FTS: 399-5850 Commercial: 206-442-5850
Nights, Weekends, Holidays:
FTS: 399-5886 Commercial: 617-442-5886

Commander (mep)
Fourteenth Coast Guard District
Prince Kalaniana'ole Fed. Bldg.
Honolulu, HI 96850

FTS: 546-7510 Commercial: 808-546-7510
Nights, Weekends, Holidays:
FTS: 546-7109 Commercial: 808-546-7109

Commander (mep)
Seventeenth Coast Guard District
P. O. Box 3-5000
Juneau, AK 90822

FTS: 586-7195 Commercial: 907-586-7195
Nights, Weekends, Holidays:
FTS: 586-7340 Commercial: 617-586-7340

II. USCG Contracting System Matters (For addresses see above)

Commander (f), First Coast Guard District
FTS: 223-6900 Commercial: 617-223-6900

Commander (f), Second Coast Guard District
FTS: 279-4640 Commercial: 314-425-4640

Commander (f), Third Coast Guard District
FTS: 664-7128 Commercial: 212-668-7128

Commander (f), Fifth Coast Guard District
FTS: 827-9336 Commercial: 804-398-6332

Commander (f), Seventh Coast Guard District
FTS: 350-5684 Commercial: 305-350-5684

Commander (f), Eighth Coast Guard District
FTS: 682-6239 Commercial: 504-589-6230

Commander (f), Ninth Coast Guard District
FTS: 942-3970 Commercial: 216-522-3970

Commander (mep)
Thirteenth Coast Guard District
Federal Building
915 Second Avenue
Seattle, WA 90822

FTS: 399-5850 Commercial: 206-442-5850
Nights, Weekends, Holidays:
FTS: 399-5886 Commercial: 617-442-5886

Commander (mep)
Fourteenth Coast Guard District
Prince Kalaniana'ole Fed. Bldg.
Honolulu, HI 96850

FTS: 546-7510 Commercial: 808-546-7510
Nights, Weekends, Holidays:
FTS: 546-7109 Commercial: 808-546-7109

Commander (mep)
Seventeenth Coast Guard District
P. O. Box 3-5000
Juneau, AK 90822

FTS: 586-7195 Commercial: 907-586-7195
Nights, Weekends, Holidays:
FTS: 586-7340 Commercial: 617-586-7340

II. USCG Contracting System Matters (For addresses see above)

Commander (f), First Coast Guard District
FTS: 223-6900 Commercial: 617-223-6900

Commander (f), Second Coast Guard District
FTS: 279-4640 Commercial: 314-425-4640

Commander (f), Third Coast Guard District
FTS: 664-7128 Commercial: 212-668-7128

Commander (f), Fifth Coast Guard District
FTS: 827-9336 Commercial: 804-398-6332

Commander (f), Seventh Coast Guard District
FTS: 350-5684 Commercial: 305-350-5684

Commander (f), Eighth Coast Guard District
FTS: 682-6239 Commercial: 504-589-6230

Commander (f), Ninth Coast Guard District
FTS: 942-3970 Commercial: 216-522-3970

Commander (f), Eleventh Coast Guard District
FTS: 984-9264 Commercial: 213-590-2264

Commander (f), Twelfth Coast Guard District
FTS: 536-3100 Commercial: 415-536-3011

Commander (f), Thirteenth Coast Guard District
FTS: 399-5608 Commercial: 206-442-5608

Commander (f), Fourteenth Coast Guard District
FTS: 546-5515 Commercial: 808-546-5515

Commander (f), Seventeenth Coast Guard District
FTS: 586-7374 Commercial: 907-586-7724

APPENDIX M

ROLES OF OTHER FEDERAL AGENCIES AT NON-FEDERAL FACILITIES

Source: Superfund Removal Procedures, OSWER Directive 9360.0-03B (Revision #3), U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Emergency Response Division, Washington, DC, 1988, Section I-F-8.

Roles of Other Federal Agencies at Non-Federal Facilities

| AGENCY | DESCRIPTION OF ROLES AND RESPONSIBILITIES |
|---|---|
| Department of Agriculture (USDA) | Provides expertise in managing agricultural, forest, and wilderness areas; Soil Conservation Service (SCS) of USDA provides to the OSC/RPM predictions of the effects of pollutants on soil and their movements over and through soil. |
| Department of Commerce (DOC) through the National Atmospheric and Oceanographic Administration | NOAA provides scientific expertise on living marine resources for which it is responsible and their habitats, including endangered species and marine mammals; coordinates scientific support for responses and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of discharged oil and released hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil discharges; provides information on actual and predicted meteorological, hydrologic, ice, and oceanographic conditions for marine, coastal, and inland waters; furnishes charts and maps, including tide and circulation information for coastal and territorial waters and for the Great Lakes. |
| Department of Defense (DOD) | Consistent with its operational requirements, may provide assistance to other Federal agencies on request. The United States Army Corps of Engineers has specialized equipment and personnel for maintaining navigation channels, for removing navigation obstructions, for accomplishing structural repairs, and for performing maintenance to hydropower electric generating equipment. The Corps can also provide design services, perform construction, and provide contract writing and contract administration services for other Federal agencies. |

| AGENCY | DESCRIPTION OF ROLES AND RESPONSIBILITIES |
|--|---|
| DOD (continued) | <p>The United States Navy (USN), as a result of its mission and Publ. L. 80-513 (Salvage Act), is the Federal agency most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage-related and open sea pollution incidents. Also, upon request of the OSC, locally deployed USN oil spill equipment may be provided. This equipment is available on a reimbursable basis to Federal agencies upon request when commercial equipment is not available.</p> |
| Department of Energy (DOE) | <p>DOD officials serve as OSCs for removal actions and as RPMs for remedial actions resulting from releases of hazardous substances, pollutants, or contaminants from DOD vessels and facilities.</p> <p>Provides advice to the OSCs/RPMs when assistance is required in identifying the source and extent of radioactive releases, and in the removal and disposal of radioactive contamination.</p> |
| Department of Health and Human Services (HHS) | <p>Provides assistance on all matters relating to assessment of health hazards at a response and protection of both response workers' and the public's health.</p> |
| Federal Emergency Management Agency (FEMA) | <p>Will provide advice and assistance to the OSC/RPM on coordinating civil emergency planning and mitigation efforts with other Executive agencies, State and local governments, and the private sector. In the event of a major disaster declaration or emergency determination by the President at a hazardous materials response site, FEMA will coordinate all disaster or emergency actions with the OSC/RPM.</p> |

| AGENCY | DESCRIPTION OF ROLES AND RESPONSIBILITIES |
|-------------------------------------|--|
| Department of the Interior (DOI) | <ul style="list-style-type: none"><li data-bbox="679 345 1763 410">. DOI should be contacted through Regional Environmental Officers (REO), who are the designated members of RRTs.<li data-bbox="679 443 1828 540">. Department land managers have jurisdiction over the National Park System, National Wildlife Refuges and Fish Hatcheries, public land, and certain water projects in western states.<li data-bbox="679 581 1841 613">. In addition, bureaus and offices have relevant expertise as follows:<ul style="list-style-type: none"><li data-bbox="761 651 1785 776">- <u>Fish and Wildlife Service</u>: fish and wildlife, including endangered and threatened species, migratory birds, certain marine mammals; habitats, resource contaminants; laboratory research facilities.<li data-bbox="761 813 1733 906">- <u>Bureau of Land Management</u>: minerals, soils, vegetation, wildlife, habitat, archaeology, wilderness; hazardous materials.<li data-bbox="761 943 1754 1003">- <u>Minerals Management Service</u>: manned facilities for Outer Continental Shelf (OCS) oversight.<li data-bbox="761 1040 1770 1101">- <u>Bureau of Mines</u>: analysis and identification of inorganic hazardous substances.<li data-bbox="761 1138 1834 1170">- <u>Office of Surface Mining</u>: coal mine wastes, land reclamation.<li data-bbox="761 1208 1705 1268">- <u>National Park Service</u>: biological and general natural resources expert personnel at Park units.<li data-bbox="761 1305 1776 1338">- <u>Bureau of Reclamation</u>: operation and maintenance of water |

| AGENCY | DESCRIPTION OF ROLES AND RESPONSIBILITIES |
|--|---|
| DOI (continued) | <p>projects in the West; engineering and hydrology; and reservoirs.</p> <ul style="list-style-type: none"> - <u>Bureau of Indian Affairs</u>: coordination of activities affecting Indian lands. - <u>Office of Territorial Affairs</u>: assistance in implementing NCP in American Samoa, Guam, the Trust Territory of the Pacific Islands, and the Virgin Islands. |
| Department of Justice (DOJ) | <p>Can provide expert advice on complicated legal questions arising from discharges or releases and Federal agency responses. In addition, the DOJ represents the Federal government in litigation.</p> |
| Department of Labor (DOL) through the Occupational Safety and Health Administration (OSHA) | <p>Provides the OSC/RPM with advice, guidance, and assistance regarding hazards to persons involved in removal or control of oil discharges and hazardous substance releases, and in the precautions necessary to prevent hazards to their health and safety. OSHA and the States operating OSHA-approved State plans have the responsibility for assuring employee safety and health at response activities under this Plan. In cooperation with EPA and the NRT, OSHA has established a policy for handling occupational safety and health problems that may arise. This policy specifies that on request, OSHA will provide technical assistance to EPA, any other lead agency or the contractor. Technical assistance may include review of site safety plans, review of site work practices, assistance with exposure monitoring, and help with other questions that arise about compliance with OSHA standards. OSHA is also ready to respond to inspection requests from EPA or another lead</p> |

| AGENCY | DESCRIPTION OF ROLES AND RESPONSIBILITIES |
|------------------------------------|--|
| DOL (continued) | agency, and will act if there are accidents or employee complaints about unsafe or unhealthful work conditions at response activities under this Plan, as it does in other industries. OSHA reserves the right to take other actions necessary to assure that employees are properly protected at such response activities. Any questions about occupational safety and health at response sites should be referred to the OSHA Regional Office. |
| Department of Transportation (DOT) | <ul style="list-style-type: none">Provides expertise on all modes of transporting oil and hazardous substances.USCG offers expertise in domestic/international fields of port safety and security, maritime law enforcement, ship navigation and construction, and manning, operation, and safety of vessels and marine facilities. The USCG also maintains continuously manned facilities that can be used for command, control, and surveillance of oil discharges and hazardous substance releases occurring in the coastal zone. The USCG provides predesignated OSCs for the coastal zone.Through the Research and Special Programs Administration (RSPA), DOT offers expertise in the requirements for packaging, handling and transporting regulated hazardous materials. |
| Department of State (DOS) | <ul style="list-style-type: none">Will lead in the development of joint international contingency plans. Helps to coordinate international responses when discharges or releases cross international boundaries or involve foreign flag vessels. Will coordinate requests for assistance from foreign governments and U.S. proposals for conducting research at incidents that occur in waters of other countries. |

APPENDIX N

REFERENCES

REFERENCES

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Public Law 96-510, December 11, 1980.

Characterization of Hazardous Waste Sites - A Methods Manual: Volume I - Integrated Approach to Hazardous Waste Site Characterization, United States Environmental Protection Agency (USEPA) Environmental Monitoring Systems Laboratory, Las Vegas, Nevada (to be released 1985).

Characterization of Hazardous Waste Sites - A Methods Manual: Volume II - Available Sampling Methods. USEPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada, November 1984. EPA 600/484076

Cost Recovery Actions Under CERCLA, USEPA, Washington, D.C., May 1983.

Emergency Response Cleanup Services Contracts (ERCS) Users' Manual, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., October 1987.

Emergency Response Division Policy Notebook, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., and EPA Regional Offices (this notebook is updated periodically as new guidance becomes available).

EPA Superfund Guidance Manual, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., December 1981. (This manual contains all current Superfund program policy memoranda and publications, and is updated quarterly to reflect any new Superfund directives.)

Superfund Removal Procedures - Revision #3, U.S. EPA, Office of Solid Waste and Emergency Response, Washington, D.C., February, 1988.

Financial Management Officers User Manual for the Hazardous Substance Response Program, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., July 1982.

Guidance on Pursuing Cost Recovery Actions Under CERCLA, U.S. EPA, Office of Enforcement Counsel and the Office of Solid Waste and Emergency Response, August 1983.

Guide for Control of Government Property by Contractors, U.S. EPA, Office of Management Information and Support Services, Washington, D.C., November 1981.

Interim Emergency Procurement Procedures for the Hazardous Substance Response Program - Revision No. 1, U.S. EPA, Procurement and Contracts Management Division, Washington, D.C., January 1982..

Interim Standard Operating Procedures, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., May 1, 1981. (This manual is designed to furnish On-Scene Coordinators with criteria for selecting appropriate safety protocols on a case-by-case basis and as a supplement to current Headquarters/Regional safety manuals.)

National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300.

NEIC Policies and Procedures, U.S. EPA, Office of Enforcement, National Enforcement Investigations Center (NEIC), Denver, Colorado, May 1978 (Revised December 1981), EPA-330/99-78-001-R.

On-Scene Coordinators (OSC) Users' Guide, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., July 1981, (Revised February 1982).

Procedures for Identifying Responsible Parties: Uncontrolled Hazardous Waste Sites - Superfund, Barrett E. Benson, U.S. EPA, National Enforcement Investigations Center (NEIC), Denver, Colorado, February 1982.

Safety Manual for Hazardous Waste Site Investigations, U.S. EPA, National Enforcement Investigations Center (NEIC), Denver, Colorado, September 1979.

SARA, Superfund Amendments and Reauthorization Act. Public Law 99-499, October 7, 1986.

Superfund Site Paper File Structure, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., January 1983.

Technical Assistance Team (TAT) User's Manual, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., September, 1987.

Training Manual for Superfund Administrative Assistants, U.S. EPA, Office of Emergency and Remedial Response, Washington, D.C., September 4, 1981. (This provides detailed instructions to Superfund Administrative Assistants in establishing and maintaining a document control register, developing account numbers and tracking Superfund dollars.)

User's Guide to the EPA Contract Laboratory Program, U.S. EPA, Sample Management Office, October, 1984.