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SUPERFUND REMOVAL
GUIDANCE FOR PREPARING
ACTION MEMORANDA

Office of Emergency Management
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency
Washington, D.C. 20460

This document updates and replaces the “Superfund Removal Procedures Action Memorandum Guidance,” Office of Solid Waste and Emergency Response (OSWER) Directive 9360.3-01, dated December 1990, as amended by OSWER Directive 9360.0-42, Amendment to the Action Memorandum Guidance and Removal Cost Management System to Address Calculation of Removal Action Project Ceilings” dated November 5, 2001. This update supersedes the previous document and brings the guidance up-to-date.

It also updates and replaces Directive 9360.0-19, dated March 3, 1989, “Guidance on Non-NPL Removal Actions Involving Nationally Significant or Precedent Setting Issues.” That guidance is covered in a separate section within this guidance.

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EXECUTIVE SUMMARY

As the day-to-day managers of removal responses conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), On-Scene Coordinators (OSCs) are responsible for a variety of activities. One of their most important responsibilities is the preparation of Action Memoranda (AM), more commonly referred to as Action Memos.

An AM provides a concise written record of the selection and approval of a removal action. It describes the site's history, current activities, and health and environmental threats; outlines the action, cleanup levels (if applicable), and estimated costs; and documents approval of the proposed action by the proper Headquarters or Regional authority. An addendum to the AM, which is not part of the decision to select a removal action, outlines the enforcement strategy.

An AM should document consideration of the factors affecting the removal decision. Specifically, the AM should substantiate the need for a removal action based upon criteria in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Because AMs are the primary documents to select and authorize removal actions, they are a critical component of the administrative record. OSCs and Remedial Project Managers (RPMs) (in the case of some non-time critical removal actions) should always prepare detailed AMs to ensure a complete record of the decision making process. This guidance document provides through exhibits and examples the steps necessary to prepare an AM that contains the information required to properly document the selection and approval of a removal action.

KEY TO SYMBOLS

Bracketed numbers [#] appear in the text and exhibits and correspond to specific references in Appendix B. This appendix provides a list of supporting guidance documents that may be consulted for more detailed explanations of removal program procedures or policies affecting the preparation of AMs. Appropriate sections of statutes and regulations are also cited throughout the text, with a full citation of each statute and regulation appearing in Appendix B.

NOTICE

The procedures set out in this document are intended solely for the guidance of government personnel. They are not intended, nor can they be relied upon to create any rights enforceable by any party in litigation with the United States. The guidance is designed to help promote consistent national policy on the development of AMs. It does not, however, substitute for CERCLA, or the Environmental Protection Agency's (EPA) regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, and may not apply to a particular situation based on the circumstances. EPA officials may decide to follow the guidance provided in this document, or to act at variance with the guidance, based on an analysis of site circumstances.

ACTION MEMORANDA

Action Memorandum Purpose

An Action Memorandum (AM) serves as the primary decision document that:

- determines the need for a CERCLA removal action,
- authorizes the removal action,
- identifies the action and cleanup levels (if applicable) and
- explains the rationale for the removal response (for a non-time critical removal, the Engineering Evaluation/Cost Analysis (EE/CA) approval memo documents the appropriateness of a removal action, which is then chosen in an AM after the EE/CA and public comment).

On-Scene Coordinators (OSCs) prepare AMs for all Fund-financed removal actions either prior to the start of a response or after the fact for removals initiated using an OSC's delegated warrant authority as set forth in a Region's specific Delegation of Authority¹. OSCs also prepare AMs, AM-Enforcements, or Endangerment Determinations for removals to be conducted by potentially responsible parties (PRPs)[14, 27]. This guidance does not address preparation of decision documents for non-CERCLA removal actions, such as those taken to address oil spills pursuant to the Clean Water Act (CWA) and those that are authorized and funded by the Federal Emergency Management Agency (FEMA) under the Stafford Act. AMs are neither required nor prepared prior to conducting investigations, evaluations, or assessments performed under Section 104(b) of CERCLA or Section 300.410 of the NCP.

Additional or supplemental AMs may be required to:

- support the need to continue a removal action beyond 12 months,
- to increase the total project ceiling,
- to increase the total project ceiling beyond \$2 million,
- to change the scope of the removal action,
- or combinations thereof.

To initiate a removal action which, at the outset, is expected to exceed 12 months in duration or \$2 million, the OSC should prepare an AM justifying the need to undertake a removal and explain how the project meets the statutory criteria for exemption from these limits.

Each AM prepared initiating a removal should follow the standard model discussed in this guidance. Instructions on how to cover the special circumstances are provided as well.

In some cases, conditions may require that either EPA or PRPs initiate emergency removal actions within a very short timeframe. In those cases it may not be feasible to complete an AM, AM-Enforcement or an endangerment determination before work must begin. Information to document and support the emergency removal action (e.g., AM-Enforcement, endangerment determination, pollution report (Polrep)) should then be prepared as soon as

¹ The current EPA delegation of authority authorizes OSCs to determine the need for response and to approve and initiate removal actions costing up to \$250,000 in an emergency and up to \$50,000 in a non-emergency context. Such removal actions are initially selected before an AM is prepared.

feasible [23]. In some cases, an AM, AM-Enforcement or Endangerment Determination may not be required. For example, when a PRP is already conducting a voluntary response action and the OSC, per the NCP, uses his or her authority to monitor the incident response to ensure that appropriate action is undertaken.²

The Action Memorandum as Part of the Administrative Record for Selection of the Removal Action

The AM is the primary decision document selecting a removal response and is therefore the critical component of the administrative record [6, 10]. Section 113(k) of CERCLA, as amended, requires the establishment of an administrative record for the selection of a CERCLA response action. The administrative record:

- Contains body of information used by the Agency to support and select a response action.
- Is the basis for judicial review of any issues concerning the selection of a response action in the event the decision is challenged, such as in a subsequent cost recovery case. The OSC is primarily responsible for making recommendations for selection of the removal action to the delegated selecting official. As such, the OSC is responsible for ensuring the adequacy and completeness of the administrative record.
- Provides for public participation in the Superfund decision-making process.

The administrative record should contain all documents used by the Agency in making its decision to undertake and select a removal action. The AM should comprehensively demonstrate consideration of the factors supporting the determination that a removal action is warranted and the selection of the removal action. AMs that do not adequately substantiate the need for a removal action can undermine the Agency's case for a cost recovery action.

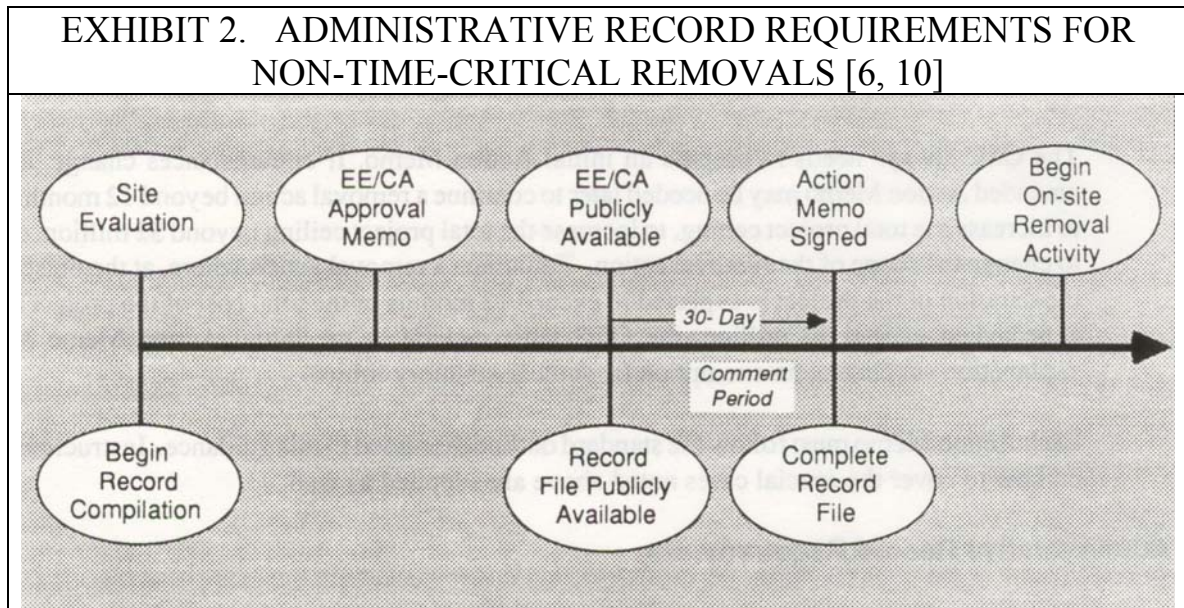
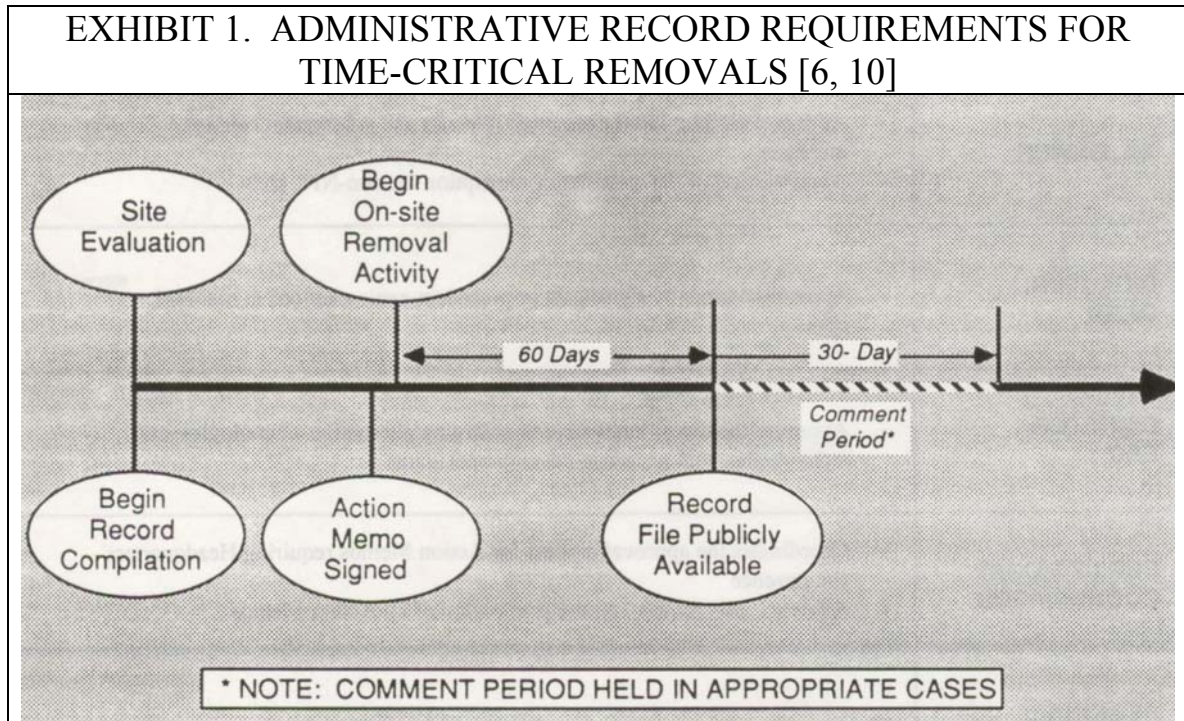
Public availability of the administrative record, as set forth in section 300.820 of the NCP is affected by the urgency of the situation and the preparation of decision documents. The administrative record file for *time-critical removal actions*, and emergency responses, should be made available for public inspection no later than 60 days after the initiation of on-site activity. Public comment periods should be held in appropriate situations at the time the record file is made available and should be no less than 30 days. Exhibit 1 illustrates this process for time-critical removals.

Although the signing of the AM generally signifies the completion of the response selection decision making, documents relevant to the response may be added to the record file later in certain situations as described in the NCP³.

For *non-time-critical removal actions* (NTCRA), a public comment period of at least 30 days is required on the EE/CA and any supporting documentation at the time the EE/CA is made available for public comment [1]. The administrative record file is made available for public inspection at the same time the EE/CA is made available. Exhibit 2 illustrates this process for non-time-critical removals.

² For the purposes of this guidance potentially responsible party (PRP) voluntary response actions are not considered removals requiring an AM (or equivalent) unless the response leads to action requiring Superfund activity under CERCLA Section 104(a) or an action whereby a PRP performs work under an Agency enforcement instrument.

³40 CFR 300.825



Action Memorandum Roles and Responsibilities

Regions

Fund Lead

OSCs should prepare AMs for all Fund-financed actions conducted under removal authority. OSCs should consult with the Office of Regional Counsel (ORC) and Regional enforcement coordinators for all AMs developed. In all situations, OSCs should strive to ensure the completeness and accuracy of AMs and document conclusions with available information. OSCs should use attachments to the AM, where appropriate, to provide additional supporting information (i.e., attachments should be concise and necessary to support or clarify an action, not just for general information). OSCs should also consult, as appropriate, staff from the Toxic Substances Control Act (TSCA) office, the Resource Conservation and Recovery Act (RCRA) office, and other Agency programs in the removal documentation process. Regional roles and responsibilities are detailed in Exhibit 3.

Generally, draft AMs should be routed through Regional management for programmatic review and to ensure that proposed removal actions are managed within the Regions' removal advice of allowance. Concurrence and/or approval from Regional program managers is required in certain situations. OSCs should arrange for Regional review of the AM and should alert Headquarters in a timely fashion of all AMs requiring Headquarters' concurrence or approval. Specific Regional review and approval responsibilities are discussed later in this document. OSCs may also want to provide AMs to personnel in Regional Public Affairs offices to facilitate public notice efforts.

NTCRA AMs should follow the same format as time critical removals and obtain Headquarters concurrence or approval under the same circumstances. OSCs and Remedial Project Managers (RPMs) should consult with Office of Superfund Remediation and Technology Innovation (OSRTI) via the Regional Coordinators, to the Director of the Assessment and Remediation Division (ARD) and the Office Director. Further guidance regarding the headquarters consultation and approvals on a NTCRA AM will be provided by the Office of Emergency Management (OEM) and OSRTI in the future.

PRP Lead

AMs, AM-Enforcements or Endangerment Determinations should be prepared for removals to be conducted by PRPs [14, 27]. Some Regions have found an AM, which includes estimated costs and authorization for funding, to be useful in PRP negotiations to indicate EPA's commitment to proceeding with a Fund-lead action. An AM-Enforcement need not include estimated costs or authorization for funding, but in all other respects it should look the same as an AM. An Endangerment Determination documents that a threat to human health, welfare or the environment exists, and/or that a removal action is warranted. It need not include estimated costs or authorization for funding, but it should contain a clear description of the conditions and threats that pose an endangerment and require a removal action.

As with Fund-lead removals, the timing for preparing an AM, AM-Enforcement or Endangerment Determination will depend on the exigency of the situation. In emergency situations, it may be necessary for the OSC to direct the PRP to initiate action prior to the preparation of a decision document or order. The OSC should document any such oral direction clearly and as soon as possible through an AM, AM-Enforcement, or Endangerment Determination [23].

All Leads

The AM also provides the basis for information to measure the progress of the removal program⁴. For OEM to be able to report on these measures, the following data elements will be provided by the Regions (While we expect that the most complete data will be found in the final Polrep, this data should also be included in the AM, if available) [21, 22, 23]:

- Site name,
- Site address,
- US EPA site ID,
- Lat/Long coordinates,
- Contaminant name (i.e., the name of the contaminant that has the greatest area of impact or the greatest potential for human exposure at levels above federally set limits),
- The evacuation zone radius (if applicable for an air release),
- Name of water body (for a release to surface water), and
- The isolation zone (the area surrounding the incident in which persons may be exposed to dangerous and life threatening concentrations of material) and protective action zone (the area downwind from an incident in which persons may become incapacitated and unable to take protective action and/or incur serious or irreversible health effects) (if applicable for an air release).

Headquarters

Regional Coordinators in OEM's Program Operations and Coordination Division (POCD) are available to provide assistance (e.g. interpretation of policy and/or guidance) in preparation for and/or during a removal action, including the preparation of AMs. OEM personnel also occasionally prepare addenda to AMs to clarify or supersede information contained in the AM. Regional Coordinators in OSRTI are available to provide assistance for OSCs and RPMs in preparation of AMs for NTCRAs. Further guidance regarding the headquarters consultation and approvals on a NTCRA AM will be provided by OEM and OSRTI in the future. The Office of Site Remediation Enforcement (OSRE) is available to provide assistance in preparing enforcement addenda for AMs. In addition, senior managers at Headquarters concur on or approve AMs under certain circumstances, as described later in this document

⁴ For more detailed information on FY'08 measures, refer to December 28, 2007 memorandum from Deborah Dietrich titled "New Outcome Measure for the Removal Program, Fiscal Year 2008" (and its attachments) and "FY2008 Emergency Response and Removal Outcome Measures Handbook", May 2008 (and its Appendix A: Case Studies). [21, 22]

EXHIBIT 3. ACTION MEMORANDA ROLES AND RESPONSIBILITIES ⁵	
REGIONAL REMOVAL or REMEDIAL PROGRAM (OSCs, RPMs, Managers, etc)	<ul style="list-style-type: none"> • Prepare all AMs • Coordinates with the OEM/POCD Regional Coordinator or OSRTI/ARD for AMs requiring Headquarters' concurrence or approval • Provides access to all Regionally-approved AMs to OEM/POCD or OSRTI/ARD Regional Coordinator • Arranges for review of draft AMs by other EPA personnel • May approve AMs according to Regional delegations
REMEDIAL PROJECT MANAGER	<ul style="list-style-type: none"> • May be asked to concur in writing on the use of the consistency exemption when a removal action is taken at a site proposed for or listed on the NPL
REGIONAL COUNSEL AND/OR REGIONAL ENFORCEMENT PERSONNEL	<ul style="list-style-type: none"> • Reviews AMs • Reviews enforcement section of AMs
REGIONAL ADMINISTRATOR (or Delegated Official)	<ul style="list-style-type: none"> • Approves all AMs for removals less than \$2 million and subsequent ceiling increases to \$2 million. • Approves "consistency" exemption to \$2 million limit for AMs at proposed and final NPL sites. • Approves "emergency" exemption to \$2 million limit (up to \$6 million) for AMs. • Approves all AMs for removals exceeding 12 months
HQ/OEM/POCD or OSRTI/ARD REGIONAL COORDINATOR	<ul style="list-style-type: none"> • Coordinates the concurrence process for AMs requiring Headquarters' concurrence/approval • Advises (upon request) on the preparation of all AMs • Prepares addenda as necessary and/or advises Regions on preparation of such addenda
DIRECTOR, POCD	<ul style="list-style-type: none"> • Reviews all AMs requiring Headquarters' approval/concurrence
DIRECTOR, OEM	<ul style="list-style-type: none"> • Concurs on draft AMs for nationally significant or precedent-setting actions at non-NPL sites • Reviews/concurs on AMs requiring AA, OSWER approval
DIRECTOR, OSRTI	<ul style="list-style-type: none"> • Reviews/concurs on NTCRA AMs requiring AA, OSWER approval
AA, OSWER	<ul style="list-style-type: none"> • Approves removal actions costing more than \$6 million and requiring the emergency waiver in Section 104(c)(1)(A) of CERCLA. • Approves the use of the consistency waiver in Section 104(c)(1)(C) of CERCLA for removal actions at sites not proposed to or final on the National Priorities List.
OFFICE OF SITE REMEDIATION ENFORCEMENT	<ul style="list-style-type: none"> • Concurs on exemption requests requiring Headquarters approval.
OFFICE OF GENERAL COUNSEL	<ul style="list-style-type: none"> • Concurs on exemption requests and nationally significant or precedent-setting actions that are approved at headquarters.

⁵ In general, OEM will review/concur on emergency and time-critical removal AMs, and OSRTI will review/concur on NTCRA AMs. However, there may be circumstances where both Headquarters offices will review/concur on time-critical and NTCRA AMs.

MODEL ACTION MEMORANDUM

Overview

An AM is used to initiate Fund-financed removals, or is prepared after the fact for those begun using the OSC's delegated warrant authority. OSCs prepare all AMs (except in the case of some NTCRA's, where RPM's may prepare them). OSCs should send copies of approved AMs to their appropriate Regional management representative and HQ Regional Coordinator, and place the original in the site file. Unless otherwise indicated in this guidance or any addenda, AMs to initiate a Fund-financed removal follow a standard format outlined on the following pages. ***OSCs should cover all of the topics presented in the outline to demonstrate that the EPA's removal action meets statutory, NCP, and delegations requirements for removals.*** For removal actions determined at the outset to exceed \$2 million or 12 months in duration, the AM should also substantiate the need for a statutory exemption, as discussed later in this guidance [3].

The short-form AM template (Appendix A, page 61) can be used for **emergency** responses and/or removals initiated using the OSC's delegated warrant authority. These AMs should be prepared and signed by the OSC as soon as practicable, or within five business days after the start of removal actions, depending on the extent of mitigation efforts. The short-form AM includes the most critical items required of every AM. Specifically, it addresses the conditions and threats at the site, describes the specific NCP criteria met to support a removal action, provides a brief description of the scope of work to be performed, and provides a cost breakout and project ceiling.

Exhibit 4, on the next page, presents the basic outline for AMs. The exhibit is followed by a model AM that addresses the major statutory, regulatory, policy, and program requirements affecting removal decisions. Abbreviated examples are provided for additional guidance; however, OSCs should provide more detailed statements in actual AMs.

EXHIBIT 4. BASIC ACTION MEMORANDUM OUTLINE

Heading

I. Purpose

II. Site Conditions and Background

A. Site Description

1. Removal site evaluation
2. Physical location
3. Site characteristics
4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant
5. NPL status
6. Maps pictures, and other graphic representations

B. Other Actions to Date

1. Previous actions
2. Current actions

C. State and Local Authorities' role

1. State and local actions to date
2. Potential for continued State/local response

III. Threats to Public Health or Welfare or the Environment and Statutory and Regulatory Authorities

IV. Endangerment Determination

V. Proposed Actions and Estimated Costs

A. Proposed Actions

1. Proposed action description
2. Contribution to remedial performance
3. Engineering Evaluation/Cost Analysis (for non-time critical actions only)
4. ARARs (Applicable or Relevant and Appropriate Requirements)
5. Project Schedule

B. Estimated Costs

VI. Expected Change in the Situation Should Action Be Delayed or Not Taken

VII. Outstanding Policy Issues

VIII. Enforcement

IX. Recommendation

Enforcement Addendum

Attachments

[Regional Letterhead]

MEMORANDUM

DATE: Month, day, year

SUBJECT: Approval and Funding for a Removal Action at ____ Site, City, County, State

FROM: Name, OSC or RPM

TO: Regional Administrator (RA) or designee (or to the file, through the RA, if the response is initiated using the OSC's \$50,000/\$250,000 delegation and warrant authority and will not exceed that cost)⁶

THRU: Regional Superfund Division Director, or designee
Office of Regional Counsel, as appropriate

Site ID # ____

I. PURPOSE

Provide a statement of purpose indicating the type of action (e.g., approval of a removal action or a ceiling increase), the site's name and location, the name of the lead respondent if there is an enforcement order (if it does not violate privacy issues), whether the response was initiated using the OSC's \$50,000/\$250,000 delegation and warrant authority, and, for non-NPL sites, if there are any nationally significant or precedent-setting issues associated with the response (if so, attach the concurrence memo shown in Exhibit 11).

Example: The purpose of this Action Memorandum is to request and document approval of the selected removal action described herein for the _____ site, City, County, State.

II. SITE CONDITIONS AND BACKGROUND

Identify the 12-digit CERCLIS ID⁷ number, RCRA and State ID's (if applicable) and the category of removal (i.e., emergency, time-critical, non-time-critical). Provide an overview of the site's history and current characteristics. Indicate the nature of the contamination and describe the information obtained in the removal site evaluation. Ensure that the information contained in this section provides an accurate assessment of current site conditions, using relevant supporting data where possible.

A. Site Description

1. Removal site evaluation

- Discuss the history of the incident or release, including the time, date and location of the incident, the type of incident that occurred, and the facts concerning the discovery of the release.

Examples: – Train derailment resulted in tank rupture and vapor release.

⁶ Regional routing instructions may vary.

⁷ Some emergencies may not have CERCLIS ID numbers.

- *A storage lagoon in the south corner of the site overflowed due to heavy rains.*
 - *Drums washed up on the beach and were reported by park rangers.*
- Indicate that if a preliminary assessment (PA), Superfund site investigation (SSI), or listing site inspection (LSI) has been conducted for the site. Regardless of the site's status on the National Priorities List (NPL), substantial background information may already exist.
- List the site's known key problem areas.
Examples:
 - *Stacked drums*
 - *Bulk liquids*
 - *Lagoons*
 - *Contaminated soils*

2. Physical location

- Describe the site's physical location in terms of surrounding land use, population size, and distances to nearest populations and other reference points, including latitude and longitude, and physical address with zip code, when available.
Examples:
 - *A school is within 1/4 mile of the site.*
 - *There are 1,000 residences within 1 mile of the site, 10 of which are adjacent.*
 - *The area is mainly suburban residential with some light industrial areas.*
 - *The Burns Asbestos site is a former Air Force Aerospace Defense Command site located on Hines Logging Road and Radar Lane approximately 3.5 miles southwest of the cities of Burns and Hines, Harney county, Oregon (T23S, R30E, Section 20 or Willamette Meridian), at the top of Burns Butte, elevation of 5,100 feet above mean sea level, 43.56222 latitude and -119.150972 longitude. The site is approximately 31.5 acres in size and is located approximately 4 miles from the nearest surface water body – intermittent creeks.*
- As appropriate to finding of release or threat of release, or to selection of the removal action, provide site-specific meteorological data (e.g., average rainfall/snowfall; average/extreme temperatures; average/peak wind speeds; prevailing wind direction), and provide references used.
- Describe adjacent areas in terms of vulnerable or sensitive populations, habitats, and natural resources, including a short description of threatened or endangered species, and historical or cultural issues. [2].
Examples:
 - *The site is adjacent to wetlands and a tributary to the Red River flows nearby.*
 - *There are no known threatened or endangered species on the site. However, the United States Bureau of Land Management (BLM) has identified more than 70 species of migratory birds that are known to pass through or breed and nest in the Burns district (which encompasses the Burns Asbestos Site).*

- *There are potential historical landmarks and/or structures with historical significance identified at the Burns Asbestos Site. EPA contacted the State Historic Preservation Office to determine if any of the buildings on site would be considered historically significant.*
- *There are populations that may be particularly vulnerable or sensitive, based on analysis of potential environmental justice concerns. The analysis is included as an attachment.*
- *There are Tribal interests at the site. EPA contacted the Burns Paiute Tribe to inform Dean Adams, the Tribal Chairman, about the removal action and to determine if the action was within the Tribe’s usual and accustomed rights area.*

3. Site characteristics

- Describe the current use of the site, the nature and type of facility, and business activities that may have or are currently contributing to the incident.

Examples:

- *The site was a sanitary landfill that accepted industrial wastes.*
- *The site has been used for a midnight dump of PCB wastes.*
- *There is an operating metal fabrication facility on the site.*

- Indicate if the site is fully or partially owned by Federal agency(ies), identify the operators of the facility if other than the Federal Agency(ies), and describe the type of facility. (Note: Department of Defense (DOD) and Department of Energy (DOE) may have delegated authority to conduct certain responses at such facilities, including emergency removal actions. Other Federal agencies may have delegated authority to conduct non-emergency removal actions. The Federal agency(ies) must reimburse EPA if EPA conducts a removal action at a Federal facility. Please contact the Federal Facilities Restoration and Reuse Office (FFRRO) and the Federal Facilities Enforcement Office (FFEO) in such instances.)

Example: – *The spill occurred on National Park Service land and required an emergency removal.*

- Indicate if a State or local government body has been an owner or operator (Note: this is particularly important at an NPL site because there may be a need for cost sharing by the State or local government. Cost-share requirements are covered in NCP Section 300.525(b))
- Indicate whether this is the first removal at the site or if there have been previous actions. Previous actions should be described in section II.B of the AM and generally count against the time and dollar ceilings.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant.

- List the hazardous substances as defined by section 101(14) of CERCLA, or pollutants or contaminants as defined by section 101(33) of CERCLA known to be present at the site. (Note: pollutants or contaminants alone are generally insufficient to support a 106(PRP lead) action. A release of a hazardous substance must be documented in the AM in support of a PRP lead removal.)

- Provide estimates of the quantities involved, identify the source of information, and refer to sampling and analytical data.
Examples: – *Site records and conversations with the plant manager indicate that 10 drums of PCB-contaminated sludge are buried on-site.*
– *Preliminary sampling has found drinking water to exceed the removal action level for toluene at two residences.*
- Highlight substances of critical concern such as PCBs and dioxins (if the information is presented in chart form, identify the substance, quantity, location, and any existing standards for comparison). Explain all data presented.
- Identify any unique characteristics of the materials involved, such as mixed or radioactive wastes.
- Describe the mechanism for the past, present, or future release, observable or probable migration route(s) of contaminants, and the basis for this determination. Discuss site features or characteristics, weather conditions, human events, or other conditions that would cause, spread, or accelerate the release of materials. Describe the rate of release and physical properties of the substance that influence or determine the form and speed at which it travels. Support these descriptions with documentation, as appropriate.
Examples: – *Substantial fire/explosion hazard and toxic fumes from the contaminants would release into the environment.*
– *A transformer lying on its side has been determined to contain PCB-contaminated oil, surrounding surface soil is heavily stained, and is readily accessible to the public.*
– *Vegetation on the north bank of the stream, approximately 50 yards below the ruptured tank, is dead.*

5. NPL Status

- State whether or not the site is listed on the NPL. If it is an NPL site, indicate whether or not remedial activities are in progress or when remedial action is expected (note that contribution to remedial performance is discussed in the "Proposed Action" section) [12].

If it is not an NPL site:

- Note whether or not the site has been proposed for the NPL.
- If information is readily available, state whether or not the site has received, or is expected to receive, a Hazard Ranking System (HRS) rating (Note: The actual numeric HRS score for a site may be confidential and should not be included in the AM without the specific advice of EPA legal counsel).
- Indicate whether or not the site is being referred to the NPL site assessment program.
Example: – *The site has been referred to the NPL site assessment program for a site investigation.*

6. Maps, pictures and other graphic representations

- Refer to attached pictures, diagrams, maps, and/or sketches if they substantiate the conditions at the site and strengthen the background section of the memo, and provide them as an attachment.

B. Other Actions to Date

1. Previous actions

- Describe any government or private actions that have been undertaken in the past and not previously discussed. Include both CERCLA and any other responses conducted previously, such as spill responses under section 311 of the Clean Water Act or private party cleanup attempts if known.
- Provide information available including, to the extent practicable, dates and effectiveness of previous actions.

2. Current actions

- Describe any other government or private activities that are currently being performed but have not been previously discussed. Indicate the dates, costs (if known), and effectiveness of these activities.
- Discuss how proposed EPA actions will relate to current activities described above.

C. State and Local Authorities' Roles

1. State and local actions to date

- Indicate whether the State and/or local governments requested EPA assistance and the name of specific agencies/officials making the request.
Example: – *The State Department of Natural Resources sent a letter to the EPA Regional office describing threats posed by leaking aboveground storage tanks at ABC site.*
- Summarize any "first responder" or other actions these or other agencies have taken to protect public health and the environment. Note the date and effectiveness of such actions.
Examples: – *Local government evacuated a one-square mile area.*
– *Police were posted on February 10 to restrict public access, and no further vandalism has occurred.*
- Indicate State/local government cooperation in assessing the release/threat, and whether State/local personnel remain at the site.

2. Potential for continued State/local response

- Describe actions State/local government personnel are taking and their future roles.
Examples: – *Site security provided by State highway patrol.*
– *Water main hookups to be installed by local water authority.*

- Indicate specifically;
 - Whether the State is able to obtain funds or must delay the response for an unacceptable period of time (based on the exigency of the situation) to provide funding;
 - Whether the State/locality will fund the removal or require funding; and/or
 - For NTCRAs, whether the State will lead the response under a cooperative agreement [8].

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Explain how this incident meets the requirement of a threat to public health or welfare or a threat to the environment⁸ for initiating a removal. Common routes of exposure include fire/explosion and resulting emissions, human contact, and soil contamination that could lead to ingestion or contamination of ground or surface water. Also note whether it is being evaluated by the Agency for Toxic Substances and Disease Registry (ATSDR) for the need to dissociate residents from threats.

For this section, discuss only those threats that will be addressed by the removal action, beginning with the most serious, and relate the discussion to appropriate statutory and regulatory authorities. Include either threats to public health or welfare, threats to the environment, or both, as appropriate.

- Detail the threats to public health or welfare as they relate to the factors (provided below) from section 300.415(b)(2) of the NCP. Attach and refer to or incorporate any final ATSDR health consultations or site-specific health advisories, or other health risk advice, and explain any deviations from final ATSDR documents.
 - ***Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.*** Identify substances of concern, realistic exposure scenarios, and how the levels of hazardous substance(s) exceed site-specific action level(s), and/or acute, and if appropriate, chronic toxicological standards. Tailor the description to the concentrations of contaminants on the site and receptors. Describe any reports of human or animal health effects (e.g., illness, injury, or death) that appear linked to the exposure and describe any effects of human or animal exposure.

Examples – *Volatilization of hazardous substances contained within the deteriorating building threatens surrounding residents with airborne exposure.*

⁸ CERCLA section 104(a) authorizes removal responses "whenever (A) any hazardous substance is released or there is a substantial threat of such a release into the environment, or (B) there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare." Note that EPA's response authority is limited under section 104(a)(3) of CERCLA when there is a release or threat of release: of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found; from products which are part of the structure of, and result in exposure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration of the system through ordinary use. EPA may not respond to these situations unless a public health or environmental emergency exists and no other authority can respond in a timely manner.

- *It is estimated that residents within a 2-mile radius may be exposed to toxic fumes at substantial levels in the event of an explosion/fire.*
- *Studies have identified nausea and respiratory dysfunction as the primary health effects.*
- *Significant levels of dioxin were found in crayfish and sediment samples taken in Black Creek downstream of the storm sewer, which carries contaminated runoff from the site.*
- *Large fish kill (4 million) reported in 2003; potential repeat if 2-million gallon lagoon overflows again, releasing sludges and supernatant liquid.*

- ***Actual or potential contamination of drinking water supplies or sensitive ecosystems.***
Identify the substances of concern, realistic exposure scenarios explaining how the water supply and/or sensitive ecosystem is threatened, and the immediacy and gravity of the threat. Describe the location of the affected drinking water supply and/or sensitive ecosystem and its use. Describe any ecosystem effects that appear to be linked to contaminant exposures. Indicate if the numeric removal action levels for drinking water are exceeded in the aquifer or site-specific factors otherwise indicate that a significant health threat exists.
Examples:
 - *Degreasers and other solvents dumped on the ground have migrated through the soil, contaminating 14 wells down gradient of the site.*
 - *Samples taken within a 2-block radius showed the removal action level for barium is exceeded at the tap in four houses.*
 - *Site is partly located in a wetland. Hazardous substances kill algae which are an important part of the ecosystem. State has documented groundwater contamination.*
 - *State Department of Natural Resources reports high levels of mercury and other heavy metals in fish in a nearby recreational lake, which receives storm water runoff from this abandoned electroplating facility.*

- ***Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.*** Identify the substances of concern and estimate their quantities; and describe the number, type, and conditions of containers to the extent they are known. Provide realistic exposure scenarios based upon site conditions and the proximity of sensitive or nearby populations. Describe the effects of human exposure and/or the effects of these substances on plant and/or animal life.
Examples:
 - *The chemicals are contained in 2 leaking 5,000-gallon pressure vessels located on deteriorating, concrete pads. An elementary school is located 1/4 mile away.*
 - *There are approximately 10 uncovered drums surrounded by a partially, collapsed chain-link fence on the site, which is crossed by a footpath frequented by neighboring residents going to the train station.*
 - *Approximately 800 drums containing volatile organics, about half of which are damaged, are strewn across the southwest corner of the property. Vegetation in the vicinity of the drum site is dead.*
 - *Pesticide residues are present in many open containers on the landfill surface. Deer have been observed walking through the landfill area and grazing nearby. These pesticides are toxic at these levels to deer.*

- ***High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.*** Identify the substances of concern, estimated amounts,

realistic pathways and exposure scenarios, and how the levels exceed standards. Describe the soil characteristics, the extent of the contamination, and factors that may affect migration.

- Examples:**
- *The hazardous substances were dumped in a 20-ft. square area and have penetrated the top soil to a depth of approximately one foot. The aquifer is 6 feet below the surface. If contaminants leach an additional five feet, they will encounter and contaminate the aquifer.*
 - *The residue from the lagoon lies on top of a hard packed clay surface, with contaminants migrating from the site in storm water runoff to a nearby stream used for drinking water.*
 - *PCB contaminant levels in the soil at the property line exceed 200 ppm. A neighboring horse farm that has access to trails on-site is adjacent. Contaminants would be toxic to horses at these levels.*
 - *Fugitive dust has been observed escaping the site during periods of high wind and moving towards a trout hatchery less than 1/4 mile downwind.*
- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.** Describe the conditions of concern and provide an estimate of the likelihood of their occurrence. Explain how these conditions would affect exposure scenarios and migration or to likely exposures to plant or wildlife populations. Describe recurring weather patterns that create or aggravate threats to the environment.
- Examples:**
- *Spring floods carried an estimated 70 barrels of volatile organics into the Green River, the drinking water source for more than 5,000 people. Further flooding is predicted.*
 - *Before containment measures are implemented, heavy summer cloudbursts may wash pollutants across the concrete yard and into municipal storm sewers. This could affect a nearby watercourse used for swimming.*
 - *Snow melt runs through the mine drainage area each spring, depositing tailings in Rush Creek, which is used for recreational fishing. Record snowfalls were reported in January and February.*
 - *Heavy rains are expected to continue, which could result in a second lagoon overflow into the adjacent wetland when migratory bird populations are at their peak.*
- **Threat of fire or explosion.** Identify the substances of concern, and realistic exposure scenarios including the gravity and immediacy of the threat. Be specific about the number of people exposed, the proximity of sensitive or nearby populations, and the geographic area affected. Describe any illness, injury, or death to flora or fauna resulting from fires or explosions. Describe the geographic area affected and any special environmental concerns.
- Examples:**
- *The site contains nearly 30 drums of incompatible volatile organics stored next to each other. A hospital is less than four blocks away.*
 - *Vandals have set two fires at the unsecured site, necessitating evacuation of five row houses adjacent to the drum storage area.*
 - *Hunters using the grounds of the abandoned chemical reclamation facility for target practice detonated discarded munitions, creating a fire that devastated more than 4 acres of the wildlife management area and killed an unknown number of birds and other wildlife.*
 - *Reactive chemicals are stored haphazardly throughout the dilapidated warehouse, and in some instances are exposed to the elements, creating potential for explosion and fire. The nursery for the county arboretum is approximately 600 yards from the south wall of the warehouse.*

- *The availability of other appropriate federal or state response mechanisms to respond to the release.*
- *Other situations or factors that may pose threats to public health or welfare of the United States or the environment.*

IV. ENDANGERMENT DETERMINATION

It is strongly encouraged that an endangerment determination analysis be included in every AM (or its equivalent). An imminent and substantial endangerment finding would support a future PRP-takeover under CERCLA § 106, which requires an imminent and substantial endangerment finding. As per OSWER Directive 9360.0-34 (August 19, 1993) [17], an endangerment determination should be based on “appropriate Superfund policy or guidance, or on collaboration with a trained risk assessor, which is outlined and discussed in Section III above. Appropriate sources include, but are not limited to, EPA relevant action level or clean-up standards, Agency for Toxic Substances and Disease Registry documents or personnel, or staff toxicologists.” Whatever source is used should be cited in this section, along with a detailed justification of the decision.

Depending on the types of substances involved, one of the following two statements should be used:

- For removals involving hazardous substances:

“Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.”
- For removals involving only pollutants or contaminants:

“Actual or threatened releases of pollutants and contaminants from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.”

V. PROPOSED ACTIONS AND ESTIMATED COSTS

Explain proposed actions, estimated costs, and the project schedule. State how the action addresses the threat. To the extent alternative actions were considered; include descriptions, costs estimates, and schedule.

Example: – *Removal of waste solvents and off-site RCRA disposal is the only feasible solution for mitigating threats posed by the situation. Site stabilization without disposal would provide only a temporary solution to the threats posed by the site.*

A. Proposed Actions

1. Proposed action description

Describe the tasks involved in the proposed response to the public health, welfare, and environmental threats discussed in Section III of the AM. To the extent that it is known at the time, describe the removal, including ultimate disposition of contaminants, and explain what may be anticipated to remain at the site when the removal is completed. Discuss the rationale for choosing the option and provide supporting data for the decision. State why the proposed actions are appropriate for this situation in light of the threats and explain how they may achieve timely response and protection of human health and the environment. Describe, if appropriate, any significant conservation measures and/or best management practices to be employed during the response action to avoid or minimize adverse effects on the environment. In some limited cases, alternative removal activities may be defined in the scope of work provided that each alternative can be described in the AM as appropriate to abate, prevent, minimize, stabilize, mitigate or eliminate the release or threat of release (describing alternative remedies may provide more incentive for PRPs to sign orders to take a removal action and may also offer more flexibility for the OSC should they discover conditions during the action that will render one option better than another).

Examples: – *Installation of an interceptor well will block the migration of contaminants and greatly reduce the threat of contaminating the stream bordering the site. Contaminated water will be treated on-site and discharged into the stream.*

– *Excavation of the contaminated soil and disposal in a RCRA-permitted landfill will mitigate the public health threat posed by direct human contact and inhalation of airborne particles.*

- State whether any further information is needed before all response actions can be decided and, if possible, the approximate date when a final decision will be reached.

Example: – *Further sampling to determine the extent of soil contamination is expected to be completed within 30 days.*

- Ensure that the extent of contamination has been or will be verified by sampling and properly documented. If the extent of the contamination study has not been fully completed and verified, the AM should describe any other actions to be undertaken. Refer to the Sampling Quality Assurance/Quality Control (QA/OC) Plan and summarize the contents if necessary.

Example: – *EPA will use a split sampling technique.*

- To the extent information is available; describe how any vulnerable or sensitive populations, habitats, or natural resources identified in section II.A might affect removal activities.

Example: – *Location in a floodplain might hamper removal activities in spring season*

- Where known and appropriate, list other uncertainties affecting implementation of the proposed action.

Examples: – *Mobile incinerators will not be available until next quarter.*
 – *Steep slope of site may prevent permanent capping.*

- Discuss the need for provision of post-removal site controls (PRSC) and identify specific PRSC (e.g., maintenance of signs, fences) necessary or appropriate for the removal action to remain protective. Note whether the State, local government, or the PRPs have agreed to provide for PRSC, if applicable. Identify any other agreement that exists to provide PRSC. The AM may include a contingency for changing to a response that does not require PRSC if no commitment for PRSC can be obtained. (Note: As stated in section 300.415(k) of the NCP, OSCs are strongly encouraged to obtain a commitment to provide for PRSC when necessary before initiating removal activities that will require PRSC.) [7] Alternatively, the AM may clearly delineate the extent of the proposed removal action, and document the potential risks of PRSC failure, in order to ensure informed Agency deliberation.

Example: – *Post-removal site control activities (e.g., repair of fencing surrounding the on-site waste repository) will be managed by the PRPs.*

- Discuss the need for and feasibility of relying on State or local agencies or PRPs to implement institutional controls (ICs) following the removal action, if applicable [11]. If known, describe specific institutional controls the State or local agencies may implement (e.g., environmental covenants) consistent with State or local law (e.g., state statute adopting Uniform Environmental Covenants Act). (Note: This is most important for removals involving excavation where contaminated soil remains below clean fill according to specific cleanup plans.)

Examples: – *Land use restrictions are needed to prevent disturbance of the contaminated materials remaining beneath the protective barrier after completion of the removal action. Consistent with state law, EPA will request that the State sign an agreement under which the State will ensure that property owners provide environmental covenants restricting future uses of the property and requiring compliance with specific construction instructions to manage any future activities properly.*

– *EPA will request that the County agree to institute prohibitions on drilling new water wells.*

- Describe available information concerning off-site disposal, such as the estimated quantity or type of waste(s) requiring off-site treatment or disposal, and, if known, the treatment facility and the extent to which the substance can be treated.

Examples: – *Drums containing an unidentified mixture of solvents will require off-site disposal.*

– *Arrangements will be made for disposal of approximately 300 tons of contaminated soil at a RCRA-approved facility.*

- State the intent to comply with the off-site rule, or indicate that compliance with the policy is not an issue at the site. For non-time-critical removals involving off-site disposal, indicate that the appropriate State environmental officials have been notified.

Example: – *Since the material is being stabilized on-site, off-site disposal is not required.*

- Identify cross-media relationships and potential adverse impacts associated with intermediate steps.

Examples: – *Excavation of soils from highway shoulder will require traffic diversion and will be coordinated with local police.*

- *Local traffic and noise levels will increase during the response. Therefore, hazardous substances will not be moved off-site during school bus operating hours.*

2. Contribution to remedial performance

- Indicate that the proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action with respect to the release or threatened release concerned. For sites where long-term remedial action is anticipated, the AM should document the conclusions resulting from consideration of the following items:
 - For sites with signed Records of Decisions (RODs), briefly describe the remedial action selected. For proposed and final NPL sites where no remedial action has been selected, identify a range of feasible alternatives based upon a review of available site information and professional judgment;
 - Which threats will require attention prior to the start of the long-term cleanup if there is one? For proposed or final NPL sites, where remedial action is planned or likely, identify specific threats and explain why and how they must be addressed prior to long-term cleanup;
 - How far should the removal go to ensure that threats are adequately abated? For proposed or final NPL sites, where remedial action is planned or likely, explain (1) which threats must be abated entirely and which must be stabilized to protect public health, welfare, and the environment until a permanent remedy can be effected and (2) how abatement or stabilization is accomplished by the proposed actions in Section V of the Action Memo;
 - Is the proposed removal action consistent with the long-term remedy, if known? Describe how the removal contributes to, or is at least consistent with, the permanent remedy. Explain if complying with contribution to remedial performance provisions conflicts with other program goals such as pursuit of PRP cleanup;
 - For non-NPL sites where remedial plans are unknown or not anticipated, state that the proposed action will not impede future responses based upon available information;

OR

- Note that no further action is required if the proposed removal action completes the cleanup, or if an emergency existed that precluded an analysis of how the removal related to long-term actions.

3. Engineering Evaluation/Cost Analysis (EE/CA)⁹

- Refer to the EE/CA (located in the administrative record file) and the EE/CA Approval Memorandum for a discussion of alternative actions considered for non-time-critical removals [1].

⁹ This section applies only to non-time critical removals.

- Refer to the written response to significant comments on the EE/CA and supporting documentation in the administrative record.

4. Applicable or relevant and appropriate requirements (ARARs)

Pursuant to 40 CFR 300.415(j), removal actions shall, to the extent practicable considering the exigencies of the situation, attain ARARs [5]. "Practicability" is based upon the urgency of the situation and the scope of the removal. For instance, the need to respond immediately may be so urgent that there is not time to identify ARARs or evaluate the extent to which ARARs could be attained. Setting ARARs-based cleanup standards for more permanent or extensive cleanups may not be practicable for removal actions intended to address more immediate environmental hazards. Even if compliance with ARARs is practicable, compliance may be waived if the requirements under CERCLA Section 121(d)(4) are satisfied.

ARARs consist of two sets of requirements, those that are applicable and those that are relevant and appropriate. OSCs should identify ARARs on a site-specific basis by first determining whether the given requirement is applicable, and then, if not, determining whether it is relevant and appropriate for onsite activities. Applicable requirements are those substantive standards that specifically address the situation at a CERCLA site, however, an applicable requirement need not have been promulgated specifically to apply to CERCLA sites. If a requirement is not legally applicable, a decision maker (e.g. OSC) must exercise best professional judgment to determine whether it is relevant and appropriate under the circumstances of the release of contamination.

To determine relevance, the decision maker should determine whether the requirement addresses problems or situations sufficiently similar to the circumstances of the proposed response action. For appropriateness, the determination should be made as to whether the requirement would also be well-suited to the conditions of the site.¹⁰

EPA defines ARARs as either chemical, location or action specific. Requirements generally are ARARs when they pertain to the specific activities being conducted.

ARARs include the following:

- 1) Any standard, requirement, criterion, or limitation under any Federal environmental law, such as TSCA, Safe Drinking Water Act (SDWA), Clean Air Act (CAA), RCRA, etc, and
- 2) Any promulgated standard, requirement, criterion, or limitation under a State environmental or facility-siting law, including those contained in EPA-approved programs which has been identified by the State to EPA in a timely manner.

¹⁰ It is recommended to consult with OSWER Directives 9234.1-01 and 9234.1-02, CERCLA Compliance with Other Laws Manual: Parts I and II (August 1988 and August 1989 respectively), especially Exhibits 1-1, 1-2, 1-3, and 1-9. These exhibits list potential chemical, location and action specific ARARs under major Federal environmental statutes.

Federal

- List Federal ARARs identified for the site that are deemed practicable, if any.
Example: – *Based on communications with the EPA Region 2 Office of Solid Waste, Office of Water, Office of Air Quality Planning and Standards and the office of Toxic Substances, the following were indentified as practicable Federal ARARs for the site:*
 - *RCRA Subtitle C (40 CFR 264 Subpart J) requirements for storage of a RCRA hazardous waste (KO52 – Petroleum refining industry tank bottoms) in a tank with secondary containment*
 - *TSCA requirements for the storage of PCBs*
 - *TSCA requirements to incinerate PCB-contaminated waste at a TSCA-permitted incinerator*
 - *Clean Water Act section 404 requirements for dredging a Federally designated wetland.*
- Explain, if necessary, that Federal ARARs were not considered before removal activities were undertaken during an emergency situation.

State

- Describe efforts to identify State ARARs and indicate if State response has been timely.
Example: – *Received list of ARARs for XYZ site from State representatives within two weeks of request*
- Where there has been time to assess State ARARs, list those which are deemed practicable.
Example: – *After review of list of potential State ARARs, the following State ARAR was determined to be practicable for the site:*
 - *State surface water direct discharge effluent limitations for wastewater treatment effluent contaminated with lead, zinc and arsenic.*
- Explain, if appropriate, that State ARARs were not identified or considered prior to removal initiation due to emergency circumstances.

5. Project schedule

- Specify the anticipated time needed to perform the preventative, stabilizing, and/or mitigative (cleanup) response actions to the threats posed by the site, and how quickly response activities are expected to begin.
- Show when the State/local/PRP/remedial program commitment to provide PRSC takes effect, if applicable [7].

B. Estimated Costs

In November, 2001, the Agency outlined a new approach to the removal action project ceiling calculation [13]. The new approach counts only direct extramural costs against the obligations limitation. The calculation of the obligations limitation (or removal action project ceiling) does

not include estimates of other costs -- such as intramural direct labor, travel, and indirect costs, and subsequent enforcement costs -- that are recoverable under Section 107 of CERCLA.

- Use the Removal Cost Management System (RCMS) [28] to summarize the estimated total removal action project ceiling¹¹ with a breakdown of costs highlighting the categories listed below.

Extramural costs coming out of the Regional allowance¹²

- Emergency and Rapid Response Services (ERRS), subcontractors, pre-qualified vendors and other site-specific contracts, letter contracts, order for services, notices to proceed, and interagency agreements (IAGs) with other Federal agencies such as the U.S. Coast Guard, Federal Emergency Management Agency, Bureau of Land Management, Bureau of Reclamation and the U.S. Army Corps of Engineers.

Other extramural costs not funded from the Regional allowance.

- Superfund Technical Assessment and Response Team (START), including multiplier costs¹³.
- Contract Laboratory Program (CLP).
- Decontamination, Analytical & Technical Services Contract (DATS).
- Scientific, Engineering, Response, and Analytical Services Contract (SERAS).

Exhibit 5 shows a sample removal action project ceiling estimate. (Note: Do not include any CERCLA section 104(b) investigatory costs in the estimate, because they do not count against the removal action project ceiling or the \$2 million statutory limit.)

- Include contingencies¹⁴ in the cost estimate. The two contingencies are listed below.
 - 10-20% contingency for Regional extramural removal allowance costs, based on best engineering judgment.
 - 20% contingency applied to total or other extramural project costs (all costs except EPA intramural costs).

Include the cost of previous CERCLA removal actions taken at the site (if applicable) considering expenditures in all areas described above.

¹¹ The total removal action project ceiling is the proposed removal total cost estimate added to the previously approved total project ceiling: i.e., the total of all approved project ceilings for a site.

¹² Costs formerly referred to as “extramural cleanup contractor costs” are actually Regional removal allowance costs and should be referred to as such.

¹³ To cover administrative costs of the START program, an administrative multiplier, which includes overhead expenses, is applied towards all START expenses. This factor is multiplied by the sum of the personnel and expense amounts listed above, to estimate total START expenses for the removal site.

¹⁴ Contingencies allow for unforeseen expenses that may arise during a removal action (e.g., discovery of additional hazardous materials and delays resulting from poor weather conditions or equipment failure). Contingencies may be applied to either the extramural or intramural portion of the total project ceiling as needed.

EXHIBIT 5. SAMPLE REMOVAL ACTION PROJECT CEILING ESTIMATE [13, 28]	
Extramural Costs:	
<u>Regional Removal Allowance Costs:</u>	
Total Cleanup Contractor Costs (This cost category includes estimates for ERRS, subcontractors, Notices to Proceed, and Interagency Agreements with Other Federal Agencies. Include a 10-20% contingency.)	\$745,000
<u>Other Extramural Costs Not Funded from the Regional Allowance:</u>	
Total START, including multiplier costs	\$150,000
Total Decontamination, Analytical & Tech. Services (DATS)	<u>5,000</u>
Total CLP	<u>\$100,000</u>
Subtotal	\$255,000
Subtotal Extramural Costs	\$1,000,000
Extramural Costs Contingency (20% of Subtotal, Extramural Costs rounded to nearest thousand.)	\$200,000
TOTAL REMOVAL ACTION PROJECT CEILING	\$1,200,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

- Describe any expected changes in the situation should action be delayed or not taken, such as changes in the scope or nature of contamination, increased threats, or the need for additional response actions. Include a worst-case scenario.
Examples: – Contamination may spread from the site to a nearby stream which serves as a municipal water supply.
 – Delayed action may increase public health risks to the adjacent population through prolonged exposure to airborne contaminants.

VII. OUTSTANDING POLICY ISSUES

- Discuss remaining policy issues not previously discussed, if applicable, or state "None" if no other policy issues are associated with the site. For nationally significant or precedent setting sites, indicate the policy issue and refer to attached HQ concurrence.
Examples: – The removal involves nationally significant and precedent-setting issues because it involves releases from consumer products on Indian Tribal lands.
 – The site comprises two non-contiguous areas of contamination located 1/4 miles apart.

VIII. ENFORCEMENT

The purpose of an AM is to document the threats posed to public health, welfare and/or the environment and document the decision to fund and undertake the selected removal action. For administrative purposes, the enforcement strategy is included as an addendum with the original AM. **It is not distributed to outside parties or included in the Administrative Record.**

As set out in Section 104(a) and as more fully explained in NCP section 300.415(a)(2), EPA's policy concerning removal enforcement is that where PRPs are known, an effort should be made, to the extent practicable, to determine whether they can and will perform or finance the necessary removal action promptly and properly [14, 27]. The urgency determination (i.e., emergency, time-critical, or non-time-critical), however, is a deciding factor in determining the amount of time that can be devoted to a PRP search and negotiations prior to initiating a response plan. OSCs should be prepared to obtain the necessary approval to conduct a Fund-lead response if no viable PRPs can be identified, or if an order cannot be finalized prior to the need to initiate removal activities. Efforts to locate PRPs, however, should continue throughout the removal action to support PRP take-over of the ongoing action, possible PRP involvement in any future response actions, or cost recovery.

- Provide a summary statement indicating the extent to which PRPs are known, and whether they can and will perform or finance the proposed response promptly and properly.
- This section of the AM should provide EPA's total estimated project-related costs of the removal action. These costs, which are based on full cost accounting practices, will be eligible for cost recovery and are calculated shown below.

$$\begin{array}{l} \text{Direct Costs} \\ \text{(Direct extramural + Direct intramural)} \end{array} + \begin{array}{l} \text{(Indirect Costs)} \\ + [(\text{Current Region-specific Indirect Cost Rate}) \\ \times \text{(Direct Costs)}] \end{array} = \begin{array}{l} \text{Estimated EPA Costs for} \\ \text{a Removal Action} \end{array}$$

Example: – Using the sample extramural cost calculation from exhibit 5 (\$1,200,000), an estimate of EPA's direct intramural costs (\$40,000), and 27.02% as the regional indirect cost rate, the total estimated EPA costs for the removal would be:

$$(\$1,200,000 + \$40,000) + (27.02\% \times \$1,240,000) = \$1,575,048$$

- Include the following sentences in the enforcement section of the AM:

“The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$1,575,048.”
- Include the following language as a footnote in this section:

“Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost

estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery."

- Place all remaining information concerning the enforcement strategy in a separate addendum labeled "enforcement sensitive." The enforcement addendum is not part of the AM for purposes of NCP and is *not* placed in the publicly available section of the administrative record file.

IX. RECOMMENDATION

- The following statement should appear in all AMs to document that the proposed response is in compliance with statutory and regulatory removal provisions.

"This decision document represents the selected removal action for the ___ site, in ___ (location), developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for the site."

- Provide an approval statement indicating that NCP removal requirements have been substantiated and stating the total project ceiling and the Regional removal allowance costs.
Example: – *Conditions at the site meet the NCP section 300.415(b) criteria for a removal and I recommend your approval of the proposed removal action. The total project ceiling, if approved, will be \$1,200,000. Of this, as much as \$745,000 comes from the Regional removal allowance.*
- Include spaces for approval or disapproval signatures and dates.

ENFORCEMENT ADDENDUM

Type the site name and date on each page of the enforcement addendum and label clearly "Enforcement Sensitive." **The enforcement addendum must be detached from the AM before placing the AM in the administrative record file.** Discuss the following topics in the addendum using the assistance of Regional enforcement staff to compile information [14, 27].

A. PRP Search

- Detail PRP search progress to date, including PRPs identified, their financial status (if known), and an estimate, if possible, of how much waste they contributed to the site (volumetric contribution) (if known).
Examples: – *Title searches and examination of on-site accounting records are being conducted to identify PRPs.*
– *The 104(e) information requests have been issued.*
– *The PRP has failed to take part in prior removal actions.*
- Describe the PRP search strategy for the future, including the schedule and expedited components (if applicable).

B. Notification of PRPs of Potential Liability and of the Required Removal Action

- Indicate if notice letters have been sent, to whom, and the response of PRPs to date. (Note: Notification, prior to the start of the response, is not always possible in emergency situations.)

Efforts to notify PRPs, however, should continue throughout the removal action to support PRP take-over of the ongoing action, involve the PRP in future response actions, or cost recovery.)

Example: – *Fifty notice letters have been sent to identified PRPs.*

- Describe future notice activities planned and their implementation schedule.

C. Decision Whether to Issue an Order

- Discuss consideration of the primary factors affecting the decision to issue an order including the immediacy of the need to respond, evidence indicating PRP liability, and the financial ability of PRPs to respond. (Note: Ensure that all administrative record requirements have been met before issuing a UAO.)

Example: – *The Agency has identified viable PRPs and anticipates issuing a Unilateral Administrative Order under section 106 of CERCLA to implement the removal action selected in this Action Memorandum.*

- Discuss consideration of the secondary factors affecting the decision to issue an order including the ability and need to precisely define the removal, willingness of the PRPs to conduct the removal (this is not dispositive), availability of the Fund, and technical problems such as the oversight/technical capabilities of the PRP.

Example: – *The PRPs have not adequately responded to a RCRA section 7003 order.*

- Identify any other strategic concerns regarding the issuance of an order.

D. Negotiation and Order Issuance Strategy

- Discuss the timeline/deadline for issuance of an Administrative Order on Consent (AOC), the date for issuance of a Unilateral Administrative Order (UAO) if no settlement is reached, and the status of the order.

Example: – *A 2-week time frame for negotiations has been established starting June 1. If no agreement is reached, an UAO will be immediately issued.*

- Indicate the process by which the appropriate State agency will be notified.

- Identify any access issues and how they have been addressed.

Example: – *The site owner initially refused access to response personnel but has since relented.*

- Describe the status of Statement of Work preparation.

Example: – *The PRPs have contracted with a national cleanup firm, provided EPA with a copy of the work plan, and site investigation is underway.*

- Discuss the availability and thoroughness of the documentation of past costs.

ATTACHMENTS

- Append attachments referred to in the body of the AM.

ACTION MEMORANDA FOR SPECIAL CIRCUMSTANCES

I. OVERVIEW

In addition to requesting approval of an initial removal response, AMs are used to request ceiling increases, statutory exemptions, changes in the scope of response, or combinations of these categories. This section provides instructions on preparing the basic types of AMs used in special circumstances (i.e., combined removal and statutory exemption requests, 12-month exemption requests, ceiling increase requests, \$2 million exemption/ceiling increase requests, and requests for changes in the scope of response). For removal actions involving combinations of these scenarios, OSCs should consult the instructions for each type of request to ensure that all appropriate information is included.

II. INITIAL REMOVAL WITH STATUTORY EXEMPTION REQUESTS

A. Overview

An OSC may be able to determine at the initiation of a response that an exemption to the statutory limitations under CERCLA will be needed [3]:

- To initiate a removal action where the project is expected at the outset to exceed 12 months¹⁵.
- To initiate a removal action where the total project cost is expected at the outset to exceed \$2 million.

AMs that combine exemption requests with requests for initial approval of removal actions should contain the information discussed below, in addition to the information detailed in the model AM provided in the preceding section. The new information described below should be inserted into the appropriate section of the model AM, as indicated by the shaded portions of Exhibit 6. The section numbers shown below correspond to the basic AM outline presented in Exhibit 4.

B. 12 - Month Exemption

An AM requesting initial approval of a removal combined with a 12-month exemption request is used when the OSC can determine at the outset of the response that the removal action will exceed the statutory time limitation of 12 months [3]. Like the model AM described in the preceding section, this AM is sent to the RA (or to whomever the RA has re-delegated this authority) for approval, and addressed from the OSC through the Regional Superfund Division Director (as appropriate). In situations where an exemption is sought for a removal at a proposed or final NPL site based upon the consistency exemption, the appropriate official in the Region's remedial program should also concur (RAs are authorized to approve time exemptions based

¹⁵ The 12-month clock starts when on-site removal action response activity begins (not when the contractor is authorized) and runs for 12 consecutive months, including time that passes between restarts. CERCLA section 104(b) investigatory studies, which would include removal site evaluation activities conducted pursuant to NCP 300.410, are not removal action response activities that count toward the 12-month time limit when they precede the initial start date.

upon the consistency exemption for both NPL and non-NPL sites) [4]. The AM should include a “consistency exemption” or an “emergency exemption” or both.

**EXHIBIT 6. INFORMATION REQUIREMENTS FOR REMOVAL
AND 12-MONTH OR \$2 MILLION EXEMPTION REQUEST
ACTION MEMORANDA¹⁶**

Heading

I. Purpose

II. Site Conditions and Background

III. Threats to Public Health or Welfare or the Environment

IV. Endangerment Determination

V. Exemption from Statutory Limits

VI. Proposed Actions and Estimated Costs

VII. Outstanding Policy Issues

IX. Enforcement

X. Recommendation

Enforcement Addendum

Attachments

C. \$2 - Million Exemption

AMs that combine requests for an initial removal with an exemption from the \$2 million limitation are used when the OSC can determine at the outset of the response that the total cost of the removal action will exceed \$2 million [3]. The AM should include a “consistency exemption” or an “emergency exemption” or both.

Consistency Exemption:

- **NPL sites (proposed or final).** RAs are authorized to approve consistency exemptions for removal actions at proposed and final NPL sites. This AM is sent to the RA for approval, and addressed from the OSC through the Regional Superfund Division Director (as appropriate). The appropriate official in the Region’s remedial program should also concur.

¹⁶ New information is inserted into the appropriate section of the model AM, as indicated by the shaded sections of this exhibit.

**SPECIAL CIRCUMSTANCES
REMOVAL AND EXEMPTION REQUEST**

- **Non-NPL sites.** Where a consistency exemption is sought for a removal action at a site that is not proposed or final on the NPL, the AM is submitted to Headquarters for approval by the AA/OSWER.

Emergency Exemption:

- **Up to \$6 million.** RAs are authorized to approve emergency exemptions for removal actions costing up to \$6 million. This AM is sent to the RA for approval, and addressed from the OSC through the Regional Superfund Division Director (as appropriate).
- **More than \$6 million.** Where an emergency exemption is sought for a removal action costing more than \$6 million, the AM is submitted to Headquarters for approval by the AA/OSWER.

Headquarters Approval

Where Headquarters approval is sought, the OSC should alert their OEM Regional Coordinator at Headquarters as early as possible.

The AM, signed by the RA or Designated Official, must be addressed to the Assistant Administrator, Office of Solid Waste and Emergency Response (AA, OSWER) through the Director, Office of Emergency Management (OEM) to the attention of the Director, POCD. The Memo should be sent to the appropriate Regional Coordinator at least three weeks before the exemption is needed. The Regional Coordinator obtains the necessary Headquarters' concurrences and submits the AM to the AA, OSWER for final approval. If additional Headquarters assistance is needed, OSCs are encouraged to send AMs earlier to avoid lengthening the three-week Headquarters' processing time. For example, OSCs may submit draft AMs to Headquarters for comment to expedite final processing. In an emergency situation, the OSC may obtain oral approval of a combined removal and statutory exemption request from the AA, OSWER, which must be followed by a written AM within 48 hours.

EXHIBIT 7. APPROVALS FOR EXEMPTION REQUESTS			
CERCLA Waiver	Response Cost	NPL Status	Approving Official
12 month	--	--	RA
Emergency	\$2M - \$6M	--	RA
Emergency	>\$6M	--	AA/OSWER
Consistency	>\$2M	Proposed or Final on NPL	RA
Consistency	>\$2M	Not Proposed or Final on NPL	AA/OSWER

D. Additions To The Model Action Memorandum

In addition to providing the information described in the model AM, the “Purpose” and “Recommendation” sections of the AM should be modified as discussed below. A new section on the exemption from statutory limits should also be added.

Purpose (Section I)

- Modify the “Purpose” statement described in the model AM to specify a combined initial removal and 12-month and/or \$2 million exemption request.

Exemption from Statutory Limits

(New section V: follows “Endangerment Determination”)

- Place this section immediately following the “Threats” section and use the threat information to justify the need for a 12-month and/or \$2 million exemption [3]. Ensure that the severity of the threats is sufficiently documented to warrant the exemption request. Demonstrate that the removal meets one or both of the two CERCLA section 104(c) exemptions listed below (it is sometimes desirable to justify both exemptions). The two CERCLA section 104(c) exemptions are commonly referred to as the “emergency exemption” and the “consistency exemption.” Note that the statute only allows an emergency exemption when three additional conditions are met. Therefore, OSCs must ensure that all three components of the emergency exemption are sufficiently addressed when requesting exemption from statutory limits.

A. Emergency Exemption

1. There is an immediate risk to public health or welfare or the environment. The key word is immediate. Focus on how soon the public or the environment is at risk or will be in the immediate future. Describe site conditions that constitute an immediate risk. Indicate all hazardous substances involved, refer to and interpret tables of data, and define the immediacy of the risk to affected human populations and environmental resources. Discuss the time needed to address the hazards involved and adverse weather conditions that may exacerbate the situation. Make reference to and attach any final ATSDR findings.

Examples:

- *The retaining wall for the lagoon is highly unstable and on the verge of collapse. Frequent rains expected in the next 4-6 weeks may hasten this collapse, which would cause approximately 20,000 gallons of waste contaminated with heavy metals to spill into Twining Creek, approximately 1/2 mile above the public water supply intake.*
- *Volatile and explosive substances (see Table 1 for names and estimated quantities) are contained in 43 rapidly deteriorating drums. Incompatible substances are stored next to, and on top of, each other, presenting a high risk of fire/explosion and subsequent spread of toxic fumes to the 25 homes within a 1/4 mile radius of the site.*

2. Continued response actions are immediately required to prevent, limit, or mitigate an emergency. The key words are emergency and continued response actions are immediately required. Describe the emergency by referring to the release or threat of

release of hazardous substances identified in the "Threats" section, citing specific concentrations, identifying deteriorating site conditions, and describing the type of threats. Ensure that each element of the response is justified by the emergency criteria and documented accordingly (be sure to include any ATSDR health consultations/assessments/advisories that support an emergency finding). Explain the emergency consequences of not granting the exemption.

Examples:

- *The TCE-contaminated contents of two 5,000 gallon tanks will be drained and disposed of off-site. Continued actions are necessary, however, to dismantle and remove the rusting tanks so that toxic residues do not wash off-site into a neighboring stream.*
- *10 partially buried drums of dioxin-contaminated waste were discovered during the emergency removal of 120 drums from the surface of the site. Some of the contents have already leaked into the surrounding soil, presenting an increased threat to residents of 18 neighboring homes and wildlife. Contaminated soil must be addressed to eliminate risk of ingestion by neighborhood children or migrating wildlife.*

3. Assistance will not otherwise be provided on a timely basis. The key words are timely basis. Describe why State/local governments cannot address the site within an appropriate timeframe. If applicable, discuss the absence of any PRP's role using a summary of information from the enforcement addendum (excluding any enforcement sensitive details). Discuss the remedial timeframe to address the site if it is listed on the NPL.

Examples:

- *A deteriorating storage shed threatens to expose explosive substances to the atmosphere, and local responders do not have appropriate expertise for safely mitigating the threat.*
- *Neither the State nor county government has access to or resources to acquire the proper incineration equipment and services needed.*

B. Consistency Exemption¹⁷

1. Continued response actions are otherwise appropriate and consistent with the remedial action to be taken. Demonstrate that the proposed removal meets the criteria for consistency (at a minimum, the removal does not foreclose the remedial action) and appropriateness, i.e., the activity is necessary to avoid a foreseeable threat, prevent further migration of contaminants, use alternatives to land disposal, or comply with the off-site rule¹⁸. Describe what Federal, State, or PRP-lead remedial

¹⁷ This exemption is generally only for use at proposed and final NPL sites. The limited situations where use of the exemption is appropriate for non-NPL sites will be determined by the AA, OSWER on a case-by-case basis [4].

¹⁸ The off site rule is contained in Section 300.440 of the NCP: **Procedures for planning and implementing off-site response actions.** (a) Applicability. (1) This section applies to any remedial or removal action involving the off-site transfer of any hazardous substance, pollutant, or contaminant as defined under CERCLA sections 101 (14) and (33) ("CERCLA waste") that is conducted by EPA, States, private parties, or other Federal agencies, that is Fund-financed and/or is taken pursuant to any CERCLA authority, including cleanups at Federal facilities under section 120 of CERCLA, and cleanups under section 311 of the Clean Water Act (except for cleanup of petroleum exempt under CERCLA). Applicability extends to those actions taken jointly under CERCLA and another authority. (2) In cases of emergency removal actions under CERCLA, emergency actions taken during remedial actions, or response actions under section 311 of the Clean Water Act where the release poses an immediate and significant threat to human health and the environment, the On-Scene Coordinator (OSC) may determine that it is necessary to transfer CERCLA waste offsite without following the requirements of this section.

actions are planned (citing the Record of Decision (ROD) if available), or anticipate likely remedial actions if plans are not yet made.

Example: – *Excavating, and removing, the buried drums will not interfere with likely remedial alternatives to address soil and ground-water contamination. The removal action is also appropriate because the drums and their contents will be incinerated, not disposed of in a landfill.*

Recommendation (Section X)

- Refer to both removal criteria and statutory exemption criteria in a Regional recommendation statement. For AMs requiring Headquarters' approval, state when funding is planned and the source of funding.

Examples: – *Conditions at the Site meet the NCP section 300.415(b) criteria for a removal and the CERCLA section 104(c) consistency exemption from the 12-month limitation, and I recommend your approval of the proposed removal action and 12-month exemption. The total project ceiling if approved will be \$125,000. Of this, an estimated \$100,000 will be from the Regional removal allowance*

– *Conditions at the, site meet the NCP section 300.415(b) criteria for a removal and the CERCLA section 104(c) emergency exemption from the \$2 million limitation, and I recommend your approval of the proposed removal action and \$2 million exemption. The total project ceiling if approved will at \$4.5 million, of which an estimated \$3.8 million will be funded from FY 07 and FY 08 Regional removal allowances.*

III. ACTION MEMORANDA TO CONTINUE RESPONSE ACTIONS

A. Overview

AMs are also occasionally required to continue work approved by an original AM, or to restart work at the same site if the statutory limitation on time has been exceeded. The basic types of requests contained in these additional AMs are listed below.

- To extend a removal action beyond 12 months
- To increase the total project ceiling
- To increase the total project ceiling beyond \$2 million
- To change the scope of response for the removal action

General instructions for preparing these AMs are discussed in the following paragraph, followed by the specific information needed for each type of request. AMs combining several types of requests contain all appropriate information.

AMs to continue response actions cover each of the sections in the basic AM outline (see Exhibit 4), but may refer to the most recently approved AM (which should be attached) to avoid duplication. *Specific points to consider in preparing exemption requests, ceiling increases,*

requests for changes in the scope of response, or other combinations thereof include the topics listed below.

- The "Subject" line should specify the type of request (e.g., ceiling increase, \$2 million exemption, 12-month exemption, or change in the scope of response request) followed by the words "Action Memorandum" on the next line.
- If the removal action requires an extension of the 12-month limit or an increase in the project ceiling that raises costs over \$2 million, justification for the exemption is presented in a new section, "Exemption from Statutory Limits." If previous AMs were based upon different exemption criteria (e.g., the consistency exemption was used instead of the emergency exemption), the OSC includes in the new request appropriate and sufficient information. Additionally, if site conditions have changed from those documented in a previous exemption request but continue to meet the same exemption criteria, the new request demonstrate that current conditions meet the same criteria.
- If the removal action will exceed the project ceiling or if funds are to be redirected, a detailed cost breakdown of previous and requested ceilings should be provided.
- For the remaining sections of AMs to continue response actions, include the following.
 - If information contained in the previous AM is still current and correct, the OSC should indicate "Refer to previous Action Memorandum" for that section.
 - If new or additional information is available, the OSC should include it under the appropriate section number in the AM and indicate that this supplements or supersedes information in previous AMs. Note that exemption requests based upon the emergency exemption will likely require expanded sections with updated information.

The discussion below identifies specific information for ceiling increases, exemption requests, and changes in the scope of response request, as illustrated by the shaded portions of Exhibit 8. References to the appropriate section numbers in an original AM, as outlined in Exhibit 4, are included.

B. 12-Month Exemption

A 12-month exemption request AM is used to extend the response time of an already-approved removal beyond the statutory limit of 12 months [3]. The 12-month exemption request is sent to the RA for approval and addressed from the OSC through the Regional Superfund Division Director (as appropriate). If a subsequent time exemption or change in scope of response is needed, the new AM states that the removal continues to meet the original exemption criteria or demonstrates that new exemption criteria are met. Where an extension is sought for a proposed or final NPL site based upon the consistency exemption, the appropriate official in the Region's remedial program should also concur before the AM is approved.

Additions to Model Action Memorandum

Where appropriate, the previous AM should be referred to and the "Purpose," "Site Conditions and Background," "Threats," "Proposed Actions," and "Recommendation" sections should be

modified as discussed below. Any updated or new information should be discussed under the appropriate heading. A section on the exemption from statutory limits is also included.

Purpose (Section I)

- Modify the "Purpose" statement described in the model AM to specify that a 12-month exemption is sought.

Site Conditions and Background (Section II)

- Discuss who initiated the action, the date the action was approved in the original Action Memorandum, and the date response activities began on site.
- Describe the actions initially approved, actions to date, and actions to be completed.
Example: – *Of the three actions initially approved - staging of drums, soil excavation, final disposal at a RCRA approved facility - all but disposal have been completed.*
- Describe the problems or conditions at the site that have led to the request for a 12-month limit exemption.
Examples: – *Severe flooding delayed cleanup work and exposed more drums.*
– *Contract lab delays disrupted scheduled response activities.*

Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities (Section III)

- A new/revised/updated section is needed if the 12-month exemption is to respond to threats that are different from those addressed in previous AMs. Section III of the model AM describes the information that should be included.

Exemption From Statutory Limits

(New Section V: follows "Endangerment Determination")

- Demonstrate that the site meets either the emergency or consistency exemption according to the instructions in the discussion of the combined removal and exemption request AM. *Remember that the statute only allows an emergency exemption when three additional criteria are met, beyond the criteria for an original AM within statutory limits.* Therefore, substantiate the request accordingly [3, 4]. If a subsequent time extension or change in scope of work is needed, the new AM states that the removal continues to meet the original exemption criteria or demonstrates that new exemption criteria are met.

Proposed Actions and Estimated Costs (Section VI)

- Describe what actions are required to complete the removal action, addressing the same issues raised in the "Proposed Actions" section of the model AM.
- Update costs as appropriate.
- Provide an update on ARARS (e.g. response from State, evaluation of State response, list of ARARs that will be complied with).

- Address the same issues outlined in the “Proposed Actions” section of the model AM.

Recommendation (Section X)

- Provide an approval statement that briefly presents the rationale and time schedule for the removal.

Example: – *Conditions at the site meet criteria for the CERCLA section 104(c) consistency exemption, and I recommend that you approve an exemption from the 12-month limit to allow a continued removal response. The total project ceiling is \$730,000, of which as much as \$650,000 comes from the Regional removal allowance.*

- Include any special conditions or provisions that pertain to this exemption.

C. Ceiling Increase

A ceiling increase AM is used for approval of all ceiling increase requests. The RA or delegated Superfund Division Director can approve ceiling increases, addressed from the OSC, that do not result in total project costs over \$2 million. If the ceiling increase will bring the total project ceiling above \$2 million for the first time, the OSC should prepare a combined \$2 million exemption and ceiling increase. Requests for ceiling increases for projects already totaling over \$2 million should state that the removal still meets the same exemption criteria (i.e., emergency or consistency) specified in the original \$2 million exemption request/ceiling increase AM or demonstrate that the response meets other exemption criteria. Therefore, all ceiling increases for projects totaling over \$2 million reiterate or demonstrate that exemption criteria are met.

Additions to Model Action Memorandum

Where appropriate, the original or most recent AM should be referred to in order to avoid unnecessary duplication of information. The “Purpose,” “Site Conditions and Background,” “Threats,” “Proposed Actions,” and “Recommendation” sections should be modified as described below.

Purpose (Section I)

- Modify the "Purpose" statement described in the model AM to specify that a ceiling increase is requested.

Site Conditions and Background (Section II)

- State the date action was approved in the original AM and the date response activities began on site.

Example: – *The removal was initiated by EPA on December 2, 2006.*

- Discuss the present status of the removal action.

Examples: – *Actions completed include staging and overpacking drums, and pumping down lagoons.*
– *Drums currently awaiting disposal at a RCRA-approved disposal site.*

EXHIBIT 8: INFORMATION REQUIREMENTS FOR ACTION MEMORANDA TO CONTINUE RESPONSES¹⁹	
<p>12-Month Exemption</p> <p>Heading</p> <p>I. Purpose</p> <p>II. Site Conditions and Background</p> <p>III. Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities</p> <p>IV. Endangerment Determination</p> <p>V. Exemption from Statutory Limits</p> <p>VI. Proposed Actions and Estimated Costs</p> <p>VII. Expected Change in the Situation Should the Action Be Delayed or Not Taken</p> <p>VIII. Outstanding Policy Issues</p> <p>IX. Enforcement</p> <p>X. Recommendation</p> <p>Enforcement Addendum</p> <p>Attachments</p>	<p>Ceiling Increase*</p> <p>Heading</p> <p>I. Purpose</p> <p>II. Site Conditions and Background</p> <p>III. Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities</p> <p>IV. Endangerment Determination</p> <p>V. Proposed Actions and Estimated Costs</p> <p>VI. Expected Change in the Situation Should the Action Be Delayed or Not Taken</p> <p>VII. Outstanding Policy Issues</p> <p>VIII. Enforcement</p> <p>IX. Recommendation</p> <p>Enforcement Addendum</p> <p>Attachments</p>
<p>\$2 Million Exemption/Ceiling Increase</p> <p>Heading</p> <p>I. Purpose</p> <p>II. Site Conditions and Background</p> <p>III. Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities</p> <p>IV. Endangerment Determination</p> <p>V. Exemption from Statutory Limits</p> <p>VI. Proposed Actions and Estimated Costs</p> <p>VII. Expected Change in the Situation Should the Action Be Delayed or Not Taken</p> <p>VIII. Outstanding Policy Issues</p> <p>IX. Enforcement</p> <p>X. Recommendation</p> <p>Enforcement Addendum</p> <p>Attachments</p>	<p>Change in Scope of Response</p> <p>Heading</p> <p>I. Purpose</p> <p>II. Site Conditions and Background</p> <p>III. Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities</p> <p>IV. Endangerment Determination</p> <p>V. Proposed Actions and Estimated Costs</p> <p>VI. Expected Change in the Situation Should the Action Be Delayed or Not Taken</p> <p>VII. Outstanding Policy Issues</p> <p>VIII. Enforcement</p> <p>IX. Recommendation</p> <p>Enforcement Addendum</p> <p>Attachments</p>

*Ceiling increase requests for removal actions with total project costs over \$2 million should state that the removal continues to meet previously documented statutory exemption criteria or demonstrate that the response meets other exemption criteria in a section on “Exemption From Statutory Limits.”

¹⁹ New information is inserted into the appropriate section of the model AM, as indicated by the shaded sections of this exhibit.

- Describe the site conditions and the reasons for a ceiling increase request.
Examples: – *Additional drums were discovered buried near the property lines.*
– *Unexpected freezing temperatures required the use of specialized equipment.*
- Describe the purpose of ceiling increase.
Example: – *Disposal of additional drums that washed ashore after the removal action began.*
- Describe a worst-case scenario should the ceiling increase not be granted.
- Include any other information that may help substantiate the need for a ceiling increase and attach any new enforcement information, ATSDR health advice, or other useful documents.

Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities (Section III)

- A new/revised/updated section is required if the ceiling increase will be used to respond to threats that are different from those addressed in previous AMs. Section III of the model AM describes the type of information that should be included in order to substantiate the request for a funding increase.

Exemption From Statutory Limits²⁰

(New Section V follows “Endangerment Determination” for ceiling increases where \$2-million exemption has previously been approved. Renumber subsequent sections as appropriate.)

- State that site conditions continue to meet the exemption criteria (i.e., emergency or consistency exemption) specified in the original \$2-million exemption/ceiling increase AM. If site conditions have changed but continue to meet the same criteria specified in the original exemption request, demonstrate here that the new conditions meet the exemption criteria. If site conditions do not continue to meet the same exemption criteria, the AM demonstrates that criteria for the other exemption are met according to the instructions for the combined exemption and removal request AM. *Remember that additional criteria are used to evaluate the threats in an emergency exemption request than in an original AM within statutory limits. Therefore substantiate the request accordingly.*

Proposed Actions and Estimated Costs (Section V)

- Describe what actions are required to complete the response, addressing the same issues raised in the “Proposed Actions” section of the model AM.
Example: – *Sampling for compatibility remains to be completed before final disposal may be undertaken.*
- Provide a detailed breakdown of costs for both the current and proposed ceiling (see Exhibit 9) [28].

²⁰ This section is used if a \$2-million exemption has been previously approved. Renumber subsequent sections as appropriate.

Recommendation (Section IX)

- Present the Region's recommendations, rationale, and project costs in an approval statement. Summarize what the additional funds will be used for and state how much the approval would increase the total project ceiling. If the ceiling increase is for a removal with a total project ceiling of more than \$2 million, specify the exemption criteria met, the source of funding, and when funding is planned.

Examples:

- *Site conditions continue to meet the NCP section 300.415(b) criteria for a removal, and I recommend your approval of the proposed ceiling increase of \$600,000. The total project ceiling if approved will be \$1,774,000, of which as much as \$1,387,000 will be funded from the Regional removal allowance.*
- *Site conditions continue to meet the NCP section 300.415(b) criteria for a removal and the CERCLA section 104(c) consistency exemption, and I recommend your approval of the proposed project ceiling increase of \$400,000. The total project ceiling if approved will be \$3.5 million, of which as much as \$2.9 million will be funded from FY 07 and FY 08 Regional removal allowances.*

D. \$2 Million Exemption and Ceiling Increase

The \$2-million exemption request and ceiling increase AM is used when a ceiling increase will bring the total project ceiling above \$2-million for the first time or when addressing new threats in subsequent ceiling increases [3]. This dual request AM may require approval from Headquarters. If so, it must be addressed to the AA, OSWER from the RA, through the Director, OEM to the attention of the Director, POCD. In situations where an exemption is sought for a proposed or final NPL site based upon the consistency exemption, the appropriate official from the Regional remedial program also concurs [4]. Note: RA's can approve exemption requests of up to \$6 million for emergency exemptions.

Additions to Model Action Memorandum

Where appropriate, the original or most recent AM should be referred to in order to avoid duplication of material. Additionally, the combined exemption and ceiling increase AM should contain the information discussed below. The "Purpose," Site Conditions and Background," "Threats," "Statutory Limits," "Proposed Actions," and "Recommendation" should be modified as described below.

Purpose (Section I)

- Modify the "Purpose" statement provided in the model AM to request a combined \$2 million exemption and ceiling increase.

Site Conditions and Background (Section II)

- Provide the same information as detailed for the ceiling increase AM.

Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities (Section III)

- A new/revised/updated section is needed if the \$2 million exemption and ceiling increase will be used to respond to threats that are different from those addressed in previous AMs. Section III of the model AM describes the information that should be included.

Exemption from Statutory Limits

(New Section V: follows “Endangerment Determination”)

- Place this section immediately following the “Threats” section and use the threat information to justify the need for a \$2 million exemption. Ensure that the severity of the threats is sufficiently documented to warrant the exemption request (*remember that additional criteria are used to evaluate the threats in an emergency exemption request than in an original Action Memo*). Demonstrate that the removal meets either the emergency or consistency exemption (or both) under CERCLA section 104(c). See the exemption section of the combined removal and exemption request for \$2 million exemption documentation requirements.

Proposed Actions and Estimated Costs (Section VI)

- Refer to the “Proposed Actions” section of the ceiling increase AM discussed previously and Exhibit 9 for documentation requirements.

Recommendation (Section X)

- Present the Region's recommendations, rationale, and project costs in an approval statement. Identify the source of funding and when funding is planned.
Example: – *Conditions at the site meet the criteria for a CERCLA section 104(c) emergency exemption, and I recommend your approval of an exemption from the \$2 million limitation and a ceiling increase of \$500,000. The total project ceiling if approved will be \$4.2 million, of which an estimated \$3.7 million will be funded from the FY'07 and FY'08 Regional removal allowances.*

EXHIBIT 9. SAMPLE PROJECT CEILING INCREASE ESTIMATE [28]

<u>Extramural Costs</u>	<u>Current Ceiling</u>	<u>Proposed Increase</u>	<u>Proposed Ceiling</u>
<u>Regional Allowance Costs:</u>			
Total Cleanup Contractor Costs (This cost category includes OSC estimates for: ERRS, subcontractors, Letter Contracts, order for services, Notices to Proceed, Alternative Technology Contracts, and IAGs with other Federal agencies. Also includes a 10-20% contingency)	\$837,000	\$525,000	\$1,362,000
<u>Other Extramural Costs Not Funded From the Regional Allowance:</u>			
Total START, including multiplier costs	\$10,000	\$5,000	\$15,000
Total CLP	\$20,000	\$15,000	\$35,000
Subtotal	<u>\$30,000</u>	<u>\$20,000</u>	<u>\$50,000</u>
Subtotal, Extramural Costs	\$867,000	\$545,000	\$1,412,000
Extramural Costs Contingency (20% of Subtotal, Extramural Costs; round to nearest thousand)	<u>\$173,000</u>	<u>\$109,000</u>	<u>\$282,000</u>
TOTAL, REMOVAL ACTION PROJECT CEILING	\$1,040,000	\$654,000	\$1,694,000

E. Change In The Scope Of Response

The request for a change in the scope of response is used when the proposed actions and/or removal response goals have changed from those outlined in the "Proposed Action" section of the current AM. The format provided below is used when there is a change in the scope of work at a site, but no change in total project ceiling. This AM should be sent for approval to the RA from the OSC through the Regional Superfund Division Director (as appropriate), unless the removal was initially or subsequently (in the case of a \$2 million exemption request over \$6 million) approved by Headquarters. In this instance, Headquarters' approval is needed, and the AM should be routed in the same way as a \$2 million exemption request. When a change in the scope of response is needed for an approved removal action totaling more than \$2 million, the AM requesting the change should state that the statutory exemption criteria are still met.

Additions to Model Action Memorandum

Where appropriate, refer to the original or most recent AM. Additional modifications to the "Purpose," "Site Conditions and Background," "Threats," "Proposed Actions," and "Recommendation" sections are discussed below.

Purpose (Section I)

- Modify the "Purpose" statement provided in the model AM to specify that a change in the scope of response is requested.

Site Conditions and Background (Section II)

- Detail key site characteristics such as location, current conditions, and NPL status. Attach the original AM and refer to it as appropriate in order to avoid repeating site description information used to describe the same threats in the original AM.
- Discuss who initiated the action, the date the action was approved in the original AM, and the date response activities began on site.
- Describe the conditions or situations that have led to the proposed change in the scope of the response.
Example: – *Initially incineration was identified as the sole method of treatment and disposal, but tests have shown that incineration is not feasible for all the waste, so some of the waste will be solidified on-site.*
- Include a chronological description of steps taken to address the conditions or situations leading to this request.
- Identify any key problems or complications that have developed or are anticipated.

Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities (Section III)

- A new/revised/updated section is needed if the change in the scope of response is to respond to threats that are different from those addressed in previous AMs. Section III of the model AM describes the type of information that should be included.

Proposed Actions and Estimated Costs (Section V)

- List and describe all the approved project tasks remaining to be accomplished for completion of the removal action.
- Describe any ARARs that were not identified in the original AM but will be complied with as a result of the proposed change in work, addressing the same issues outlined in the "Proposed Actions" section of the model AM.
- Provide an update on ARARs identified in the original AM (e.g. response from State, evaluation of State response, list of ARARs that will be complied with).
- State that the costs will remain within the current approved total project ceiling (no separate cost summary is required).

Recommendation (Section IX)

- State that the response continues to meet NCP removal criteria and present the OSC's recommendations for a redirection of approved funds in an approval statement.
Example: – *Conditions at the site continue to meet the criteria for the CERCLA section 104(c) emergency exemption, and I recommend that you approve the redirection funds as indicated. Specifically, I recommend that you approve a change to the scope of work to include solidification, with no increase in the total project ceiling.*

IV. NON-NPL REMOVAL ACTIONS INVOLVING NATIONALLY SIGNIFICANT OR PRECEDENT-SETTING ISSUES

Background

Delegation 14-2 (November 2001) requires the concurrence of the Assistant Administrator for Solid Waste and Emergency Response (AA/OSWER) prior to initiation of removal actions taken at non-NPL sites where the proposed action is of national significance, or precedent-setting²¹. Re-delegation R-14-2 transfers authority to concur to the Director of the Office at Headquarters responsible for the Removal Program (National Program Manager); authority to non-concur remains with the Assistant Administrator, OSWER. The purpose of the concurrence requirement is to promote national consistency in the implementation of the Superfund removal program.

This section identifies categories of potential removal situations which have been determined to be of national significance or precedent-setting and specifies procedures for requesting Headquarters concurrence on these actions. The guidance also identifies categories of removals subject to special procedural requirements that do not require Headquarters concurrence.

The types of removals that require concurrence are not limited to those categories identified in this section. These categories are to be used by the Regions as a guide for screening proposed removals at non-NPL sites that may require Headquarters concurrence. Final determinations regarding removals of a nationally significant or precedent-setting nature should include the On-Scene Coordinator (OSC) in consultation with OEM's Program Operations and Coordination Division (POCD) Regional Coordinator²².

NATIONALLY SIGNIFICANT OR PRECEDENT SETTING CATEGORIES

Seven categories of removals have been designated as nationally significant or precedent-setting. The list is not exhaustive and early consultation with your Region's POCD Regional Coordinator is recommended where there are questions. In making the determination, the key considerations are:

- (a) Whether Fund-financed response to a particular incident will establish a precedent for future response actions; or
- (b) Whether a response will commit EPA to a course of action that could have a significant impact on future resources, due to the widespread occurrence of a particular problem.

²¹ Under section 300.120(c) of the NCP, EPA will provide the OSC for an emergency removal action when the release is on, or its sole source is from, a Federal facility in the inland zone, unless it is a DOD or DOE facility. An EPA emergency removal action at a Federal facility is nationally significant action; however, it does not require Headquarters concurrence for the reasons explained below in "Emergency Removal Concurrence Procedures." If there is an EPA emergency removal action at a Federal facility, the OSC should follow the procedures in "Emergency Removal Concurrence Procedures," and also notify FFRRO and FFEO as soon as possible.

²² This section does not apply to situations involving Stafford Act deployments and/or other large scale incidents where EPA would generally not use CERCLA funding. EPA's response to incidents such as Radiological Dispersal Devices (RDDs), Improvised Nuclear Devices (INDs), chemical agents and/or most biological agents would most likely be part of a full scale national response directed and funded under DHS/FEMA authorities. For radiological responses, for example, FEMA's "Planning Guidance for Protection and Recovery Following Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents" guidance issued in 2008 may be used. If however, specific circumstances resulted in an EPA decision to take a CERCLA removal action such as for a smaller incident, the AM would be subject to the Headquarters concurrence procedures of this section.

The categories identified and the rationales for identification are as follows:

1. Removal actions at sites within the United States or its territories involving contamination or response actions that may affect other sovereign nations, including Indian Tribes.

Rationale: Headquarters concurrence will facilitate the execution of proper diplomatic protocol by the Department of State, and proper coordination with Indian Tribes, the Bureau of Indian Affairs, the Indian Health Service, and other appropriate organizations, where applicable.

2. Removals involving pesticide contamination arising from:

- Improper storage of pesticide products awaiting indemnification;
- Lawful application of pesticides, including special local use pesticides;
- Grain fumigation operations.

Rationale: Headquarters concurrence will avoid commitment to cleanup of widespread contamination generally beyond the intended scope of CERCLA.

3. Removal actions at sites involving any form of dioxin when it is one of the principal contaminants of concern.

Rationale: Headquarters concurrence will ensure national consistency in dioxin cleanup. Headquarters must review all dioxin removal actions to verify that the proposed action will provide an acceptable level of protection from dioxin exposure.

4. Removal actions at sites involving releases from consumer products in consumer use (e.g., lead-contaminated soil resulting from peeling lead-based paint on houses).

Rationale: Headquarters concurrence will avoid a commitment to the cleanup of widespread non-point source contamination without consideration of the implications for the national program.

5. Removals involving asbestos when it is the principal contaminant of concern.

Rationale: Headquarters concurrence remains necessary because action levels for response have not yet been set and these determinations are being made on a case-by-case basis (see OSWER 9345.4-05 “Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluation Asbestos at Superfund Cleanups” August 10, 2004 [18] and “Vermiculite Ore Asbestos Sites: Evaluating Potential Indoor Residential Contamination” memo dated Oct. 3, 2006 from Deborah Y. Dietrich, Director, OEM [19]).

6. Removal actions involving *Bacillus anthracis* (the bacterium that causes anthrax) from natural sources (such as contaminated agricultural soils, animals or animal products)²³.

²³ Responses to weaponized forms of *Bacillus anthracis* would in general not use CERCLA funding, but would most likely be covered under the Stafford Act. However, CERCLA authority may be used.

Rationale: Headquarters concurrence will ensure national consistency in the Agency's approach to *Bacillus anthracis* cleanup as technologies, procedures and action levels continue to be developed.

7. Removal actions involving substances or releases which may be subject to statutory exclusions or limitations in CERCLA. These include:
- Substances excluded from Fund-financed response under the CERCLA section 101(14) definition of 'hazardous substance' (e.g., certain petroleum products including crude oil, and natural gas or synthetic gas usable for fuel);
 - Releases excluded from Fund-financed response under the CERCLA section 101(22) definition of 'release'(e.g., emissions from the engine exhaust of motor vehicles; releases of radioactive material from a nuclear incident²⁴; and releases caused by normally applied fertilizer); and/or
 - Releases excluded from Fund-financed response under CERCLA section 104(a)(3) including releases of a naturally occurring substances; releases from products that are part of a structure and result in exposures within the structure; and releases in public or private drinking water supplies due to system deterioration from ordinary use.

Specific examples of substances or releases that have raised issues with respect to their eligibility for CERCLA removal action include radon contamination in building structures, pentachlorophenol (PCP) contamination in log cabins, releases from coal gasification facilities, methane gas releases, and asbestos in building materials in homes.

Rationale: Headquarters concurrence will ensure that statutory exclusions and limitations are interpreted in a consistent and appropriate manner. Headquarters concurrence will also ensure consistent application of EPA's authority under CERCLA section 104(a)(4) to respond to a release or threat of release if it constitutes a public health or environmental emergency and no other person will respond in a timely manner.

Concurrence Procedures

Early screening for issues of a nationally significant or precedent-setting nature is essential to ensure timely HQ concurrence when necessary. OSCs should contact the appropriate OEM/POCD Regional Coordinator when a possible nationally significant or precedent-setting removal action is first identified, to alert the Regional Coordinator that a request for Headquarters concurrence will be forthcoming. OSCs should also call the Regional Coordinator for advice on actions that are not specifically listed in the guidance, but which may be nationally significant or precedent-setting.

For those removal actions where Headquarters concurrence is required, written concurrence should be received prior to the Regional Administrator's, or delegated Regional Manager, formal

²⁴ 42 U.S.C. 9601 (22)(C) "release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq.], if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act [42 U.S.C. 2210], or, for the purposes of section 9604 of this title or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under section 7912(a)(1) or 7942(a) of this title, ..."

approval of the AM, except in cases of emergencies (i.e., situations where a response is initiated within hours after completion of a site evaluation).

Non-Emergency Removal Concurrence Procedures

All non-emergency concurrences are requested through an AM with a Request for Concurrence form (Exhibit 11). The AM should be in final draft form, except that it should not be signed by the Regional Administrator, or delegated Regional Manager. The request form should be addressed from the Regional Administrator to the Office Director, OEM through the Regional Superfund Division Directors or designee. The request should describe the nationally significant or precedent-setting issue. This form has been developed in an effort to streamline the concurrence by Headquarters.

The Regional Administrator, or delegated Regional Manager, may approve the AM for a nationally significant or precedent-setting removal action once the action has been concurred upon by Headquarters. Additional Headquarters concurrence is required only if the scope of work described within the AM changes significantly. In this case, Headquarters concurrence on the amended AM is required, as discussed above, prior to any additional actions at the site. Headquarters concurrence is not required on requests for ceiling increases or time exemptions, unless the scope of work changes significantly.

Emergency Removal Concurrence Procedures

In cases where emergency removal actions, as defined above, involve nationally significant or precedent-setting issues, Regions may initiate a removal action without Headquarters concurrence. In these cases, however, OSCs take only those actions necessary to mitigate the emergency or stabilize the site, and then inform the appropriate OEM/POCD Regional Coordinator at the latest on the next working day after the removal action was initiated.

If the response is determined to be nationally significant or precedent-setting but no further actions are required beyond the emergency mitigation, the Regions should send to the Office Director, OEM a copy of the AM submitted to the Regional Administrator, or delegated Regional Manager, for that removal within two weeks of the AM's approval. The AM should clearly describe the nationally significant or precedent-setting issues involved. A request for Headquarters concurrence is not necessary when the incident does not require actions beyond the initial emergency measures.

For those nationally significant or precedent-setting sites where further response is required beyond the emergency measures, Headquarters concurrence should be obtained before taking any further action. These concurrence requests are subject to the non-emergency procedural requirements described above. Headquarters will expedite the review of these requests to avoid delaying on-going removal actions.

REMOVAL ACTIONS SUBJECT TO SPECIAL PROCEDURES

Procedures are set out below for two removal categories that do not present nationally significant or precedent-setting issues requiring Headquarters concurrence, but instead involve issues with special Regional procedures.

The two categories of removal actions and the policy for handling each are as follows:

1. Removals at sites with radiation contamination.
Procedures: For health and safety protection, OSCs should consult with their designated Regional health physicist and follow the appropriate procedures set out in:
 - "Turnback Guidance for EPA personnel responding to Radiological Emergencies" [Dec 7, 2006 joint OSWER and OAR memo] [24];
 - Chapter 2 of the "Emergency Responder Health and Safety Manual: Radiation Health and Safety Implementation Plan" [OSWER Directive Number 9285.312, July 28, 2005] [25]; and
 - "Safety, Health and Environmental Management Program Guidelines: Radiation Safety and Health Protection Program: Guideline 38," [EPA/Safety, Health and Environmental Management Division, March 2006], ("SHEMP Guideline 38") [26].

2. Removals involving business relocations.
Procedures: AMs for removals involving business relocations may be approved by the Regional Administrators, and other response activities comprising the removal may be initiated; however, OSCs should confer with OEM/POCD Regional Coordinators on business relocations prior to initiating the specific business relocation activities. Determinations for the types of relocation assistance EPA can provide are made on a case-by-case basis, and ORC and the Region's OEM/POCD Regional Coordinator should work with the Office of General Counsel (OGC) to determine what assistance, if any, can be provided (see "Superfund Response Actions: Temporary Relocations Implementation Guidance" [20]). This is to ensure national consistency in the criteria used to determine the need for business relocations, and the specific expenses incurred.

ACTION MEMORANDA ATTACHMENTS AND ADDENDA

Action Memoranda Attachments

The proper use of select attachments can save time in preparing AMs as well as increase the effectiveness of the AM as the primary decision document for removal activities. While certain attachments are part of the standard AM package, the OSC may utilize other existing material or easily created attachments to enhance the overall clarity and usefulness of this document. The relevance of any information contained in scientific documents should be explained and summarized within the body of every AM. Balancing the utility of AM attachments, and consistent with EPA's efforts to conserve natural resources, care should be taken to avoid excessive attachments and paper consumption, particularly for supporting documents which are already included in the administrative record.

Standard Attachments

The following documents while included in the Administrative Record should be attached to the AM when relevant to the specific site and referred to as indicated.

- EE/CA Approval Memo and the EE/CA: To avoid repetition of information and for organizational purposes, OSCs should attach and refer to the EE/CA (or its Executive Summary) and its approval memo. The EE/CA Approval Memo and EE/CA are part of the non-time-critical removal AM package [1].
- Written response to significant comments: This document is attached to the AM and referred to in the "Proposed Actions" section. If a public comment period was held pursuant to section 300.820(a) of the NCP (required for all non-time-critical removals), the AM documents that significant comments were considered. A written response to all significant comments should be included in the administrative record and may be appended to the AM after the comment period closes [10].
- Final ATSDR Health Advisories and Health Consultation Memos or other health advice: If the OSC has received such information, it is attached and referred to in the "Threats" section of the AM.
- Enforcement information: The addendum is attached and referred to, and may be prepared by enforcement personnel [14, 27]. **The Enforcement Addendum is not part of the Administrative Record and should be detached from any AM distributed outside of EPA.**
- Concurrence Memorandum for Nationally Significant or Precedent-Setting Actions. If applicable, this approval memo is attached and referred to in the "Outstanding Policy Issues" section (see previous section).

Recommended Attachments

In addition to the attachments described above, OSCs are encouraged to use other documentation to substantiate their findings presented in the AM. Suggested attachments include the following.

- Administrative Record Index: The Index may be attached and referred to in the “Site Conditions and Background” section [10]. Note: This Index may not be available for initial AMs, when it is likely the Administrative Record will not have been assembled yet.
- Previously approved AMs: If other AMs have been approved for the site, they should be attached and referred to where appropriate to avoid unnecessary duplication of information.
- Documentation of site characteristics: These may be hand-drawn or professionally produced pictures, photographs, diagrams, maps, or other illustrations of the area around the site, the site itself, and prominent site features related to the incident or its response. These documents may be referred to where appropriate in the “Site Conditions and Background” section of the AM.
- Sampling results: This includes charts, graphs, or other forms of documentation indicating the extent of contamination based upon sampling results, such as Preliminary Assessments (PA) reports. All data presented either in the AM or in an attachment must be discussed and their relevance to the removal fully explained. If a chart is used, identify in column format the substance, quantity, location, and existing standards. The attachment should be referred to in the “Site Conditions and Background” section of the AM.
- Project schedule: Charts can be used to illustrate various tasks and their anticipated duration (to avoid potential problems, the OSC might measure the time in terms of number of days instead of specific dates). The schedule should be referred to in the “Proposed Actions” section of the AM.

If other information is readily available and, based on professional judgment, the OSC believes the attachments will strengthen or clarify the material presented in the AM, the use of additional attachments is encouraged.

Headquarters Addenda

Occasionally it is necessary to make minor modifications to AMs submitted to Headquarters that do not require the development of an entirely new original AM, exemption request, ceiling increase, or a request for a change in the scope of work. Addenda are succinct documents issued from Headquarters that clarify and supersede certain parts of the AM as described below.

- Providing supplemental information to clarify or elaborate upon the need for a removal action
- Grammatical revisions to avoid misinterpretation
- Incorporating new information to reflect a change in the situation since the submission of the AM to Headquarters.
- Providing partial approval of a proposed removal action (i.e., approval for less than the requested amount).

Addenda are addressed from the Director, POCD, to the AA, OSWER, through the Director, OEM, and conclude with an approval statement similar to that of the AM. The AA, OSWER signs the addendum, not the original AM, to signify approval of the request. These addenda are not intended to serve a quality assurance/control function. Regional staff should ensure that AMs are accurate and complete before forwarding them to Headquarters.

REVIEW AND APPROVAL PROCEDURES

Need for Review

Because CERCLA limits judicial review of response action selection is limited to the contents of the administrative record, and the AM is the primary decision document used to initiate removals, the importance of a thorough review process cannot be overstated. Thorough review procedures are necessary to ensure that the AM sufficiently and accurately justifies the decision to undertake a removal. Careful reviews can also avert unnecessary delays due to typographical errors, organizational problems, and other minor errors.

Each Region should allot time for adequate review of the AM (based on the exigencies of the situation) and adhere to a consistent review process. In addition to a thorough proofreading for typographical errors and other minor problems, OSCs should refer to the checklist provided in Exhibit 10 to ensure that the AM is sufficient for administrative record purposes.

State-lead actions

OSCs also need to plan for the additional time required for intergovernmental review (IGR) of AMs for state-lead removals.²⁵ Funds will not be obligated until State representatives have had an opportunity to comment on the proposed removal in accordance with their review process. IGR should be initiated at least one quarter prior to the obligation of funds for a removal and should take place concurrently with cooperative agreement application development and review. OSCs should plan accordingly for the additional review time required for State-lead actions [8].

Resources for Review

When possible, the OSC should have an outside reviewer (in addition to their management) examine the document. This will help the OSC evaluate the AM as a sufficient decision document. Two valuable resources an OSC has in this regard are Regional Counsel and OEM Regional Coordinators.

OSCs should have Regional Counsel or enforcement staff review the "Enforcement" section of all AMs as time permits. In particular, Regional enforcement personnel should review AMs requiring Headquarters' concurrence and approval as well as 12-month exemption requests. With the increasing emphasis on removal enforcement, OSCs should ensure that each AM contains sufficient detail on enforcement activities to justify funding a removal [14, 27]. The "Enforcement" addendum should be labeled "Enforcement Confidential." The "Enforcement" addendum can also be distributed to OGC and OECA/OSRE for review and comment when requesting a ceiling waiver. Sending the "Enforcement" addendum to headquarters will not make the addendum publicly available.

OSCs can also contact their Regional Coordinators in OEM for advice and assistance throughout the removal process. OSCs are strongly encouraged to submit \$2 million exemption requests requiring Headquarters concurrence to their Regional Coordinator for review. In addition, the OSC should notify the Coordinator of forthcoming exemption requests as soon as possible following the determination that Headquarters concurrence will be needed.

²⁵ Under 40 CFR Part 29, States with established review processes are required to issue formal notice to their designated State contacts, directly affected governmental entities, and Regions/area wide planning agencies that they are seeking Federal assistance.

Regional Coordinators in the OSRTI are available to provide assistance for OSCs and RPMs in preparation of AMs for NTCRAs. Further guidance regarding the headquarters consultation and approvals on a NTCRA AM will be provided by OEM and OSRTI in the future.

Approval and Concurrence Procedures

The approval and concurrence procedures for AMs are determined by the two factors listed below.

- The type of action being requested (e.g., an initial removal action, 12-month exemption, \$2 million exemption, or change in the scope of response).
- The unique circumstances for each removal (e.g., involvement of nationally significant or precedent-setting issues, use of the consistency exemption, use of the OSC's \$50,000/\$250,000 delegation and warrant authority).

Exhibit 3 details approval and concurrence responsibilities at both the Regional and Headquarters levels. Exhibit 7 provides a summary of exemption approvals.

Regions

The RA, the Superfund Division Director, or the Branch Chief in Regions where authority has been delegated according to Delegation 14-2, approve the following removal actions by signing all final AMs: Initial removals costing up to \$2 million, 12-month exemption requests, ceiling increases up to \$2 million, and changes in the scope of response for removals costing up to \$2 million. The RA also approves \$2 million exemption requests for removals using the emergency exemption up to \$6 million. In addition to RA approval, when the consistency exemption is used and the site in question is proposed for or listed on the NPL, the appropriate official in the Region's remedial program should concur in writing [4].

Procedures for obtaining the necessary approvals and concurrences from Regional personnel vary among Regions. OSCs should check with program managers to determine existing procedures for obtaining RA concurrence and coordinating with the remedial program (if necessary).

Headquarters

The AA OSWER must approve all \$2 million emergency exemption requests and subsequent ceiling increases except in cases where the AA OSWER has delegated approval authority to the RA [3]. Under Delegation 14-2, the AA OSWER has delegated this approval authority to RAs for removals using the emergency exemption up to \$6 million. The AA OSWER also determines whether or not the use of the consistency exemption to exceed the \$2 million limit at non-NPL sites is appropriate on a case-by-case basis [4]. OECA/OSRE and OGC are consulted for all emergency and consistency exemption requests of \$2 million. OECA/OSRE is also consulted when the cost of a site increases by \$2 million (e.g., at \$4 million and \$6 million). When sending an exemption request to OECA/OSRE, the Enforcement addendum should be attached. Sending the Enforcement addendum to headquarters will not make the addendum publicly available. A consistency exemption extends the statute of limitations deadline from within three years of the completion of the removal action to within six years of the granting of the waiver.²⁶

²⁶ OGC concurrence is not required for ceiling increase requests that do not involve a change in the scope of the response.

In addition to exemption requests, one other action requires Headquarters approval or concurrence. The Director, OEM concurs on nationally significant or precedent-setting removal actions at non-NPL sites. Exhibit 11 provides a sample of the concurrence memo that accompanies AMs involving nationally significant or precedent-setting issues.

AMs for Headquarters' approval should be sent to the appropriate Regional Coordinator in OEM at least three weeks before the requested action is needed (and after appropriate Regional signatures have been obtained).

The Regional Coordinator will obtain the necessary program concurrences and submit the AM to the AA, OSWER for final approval. OSC's are encouraged to submit a draft AM to their OEM Regional Coordinator to ensure potential problems can be addressed before a signed AM is sent to Headquarters for approval or concurrence.

NTCRA AMs should follow the same format as time critical removals and obtain Headquarters concurrence or approval under the same circumstances. OSCs and RPMs should consult with OSRTI via the Regional Coordinators, to the Director of the Assessment and Remediation Division and the Office Director. Further guidance regarding the headquarters consultation and approvals on a NTCRA AM will be provided by OEM and OSRTI in the future.

EXHIBIT 10. REVIEW CHECKLIST

The following checklist has been developed to help ensure that all types of AMs are complete. OSCs and RPMs should review all AMs against the checklist and may add their own procedures.

Removal Request

The AM should:

- _____ Provide a statement of purpose (section I)*
- _____ Indicate if the response was initiated under the OSC's \$50,000 or \$250,000 authority (Section I).
- _____ Describe the site thoroughly and accurately and includes: (section II)*
 - Location (include site name, USEPA site ID, lat, long, address)*
 - NPL Status
 - Past and present uses
- _____ Identify the proper CERCLA response authority (section II).*
- _____ Indicate if a Federal facility is involved (section II).
- _____ Indicate if a state or local government body is an owner or operator (section II).
- _____ Identify the materials on site (section II).
- _____ State whether the materials are hazardous substances, pollutants or contaminants and the contaminant with the greatest impact or potential impact (section II).*
- _____ Provide an estimate of the volume of materials to be removed or remediated (section II).
- _____ Describe the migration patterns of the materials involving the affected media, and include wind speed, direction, and time of day for airborne materials (section II).*
- _____ Provide an estimate of the protective action distance for materials released to the air (section II).*
- _____ Provide an estimate of the evacuation radius if applicable (section II).*
- _____ Provide the name of the water body to which materials are released, if applicable, and area over which contaminant is present in concentrations considered harmful to humans (section II).*

* Denotes information for all AMs. Other items should be discussed as appropriate, given site circumstances.

EXHIBIT 10. REVIEW CHECKLIST

Removal Request (continued):

- _____ Provide the area of groundwater contamination, if known, and the area in which people receive assistance (e.g. bottled water distribution, water filtration) (section II).*
- _____ Describe the migration patterns of the substances involved (section II).*
- _____ Identify the strategy for and results of the PRP search and notification process (Enforcement Addendum). *
- _____ Indicate the State and local authorities past, current, and likely future involvement, and funding capabilities (section II).*
- _____ Describe any previous or current actions by the federal government or private parties (section II).
- _____ Identify and discuss threats to public health or welfare or the environment in relation to NCP criteria (section III).
- _____ Incorporate an appropriate endangerment determination based upon the substances involved (section IV)*
- _____ Describe tasks involved in the proposed response (section V).*
- _____ Substantiate the need for a removal by addressing the threats found at the site (section V).*
- _____ Identify the need to defer decisions pending further information (section V).
- _____ Refer to the sampling QA/QC plan for further information concerning site sampling plans (section V).*
- _____ Discuss the need for institutional controls (section V).
- _____ Indicate compliance with the off-site disposal rule (section V).*
- _____ Discuss commitments to provide post-removal site control (section V).
- _____ State the contribution to efficient performance of remedial actions (section V).*
- _____ Indicate consideration of alternative actions and technologies (section V).
- _____ Attach and refer to the EE/CA for an analysis of alternative actions (section V).

* Denotes information for all AMs. Other items should be discussed as appropriate, given site circumstances.

EXHIBIT 10. REVIEW CHECKLIST

Removal Request (continued):

- _____ Discuss the effort to identify ARARs and list those for which compliance is deemed practicable (section V). *
- _____ Summarize the estimated total project ceiling with a breakdown of the costs involved (section V).*
- _____ Describe the expected change in the situation should action be delayed or not taken (section VI).*
- _____ Identify important policy issues (section VII).
- _____ Provide a summary statement indicating the extent of PRP involvement in the proposed response action (section VIII).*
- _____ Provide recommendation statement and spaces for signatures and date (section IX). *
- _____ Identify the strategy for and results of the PRP search and notification process (Enforcement Addendum). *
- _____ Discuss consideration of the factors affecting the decision to issue an order (Enforcement Addendum).
- _____ Describe the negotiation and order issuance strategy and schedule (Enforcement Addendum).
- _____ Append all attachments.

Removal and Exemption Request:

- _____ Provide a specific statement of purpose (section I).*
- _____ Substantiate the need for 12-month and/or \$2 million exemption based upon the emergency or consistency exemptions, or both (new section V).*
- _____ Provide a specific recommendation statement and documented the approval of appropriate program managers (section X).*

12-Month Exemption Request:

- _____ Provide a specific statement of purpose (section I).*
- _____ Describe previous actions and current problems (section II).*

_____ * Denotes information for all AMs. Other items should be discussed as appropriate, given site circumstances.

EXHIBIT 10. REVIEW CHECKLIST

12-Month Exemption Request (continued):

- _____ Discuss any new threats to public health, welfare, or the environment as they relate to NCP criteria (section III).
- _____ Demonstrate that the site meets the emergency or consistency exemption requirements or both (section V).*
- _____ Describe remaining actions (section VI).*
- _____ Describe any ARARs that will be complied with as a result of the exemption request (section VI).
- _____ Provide a specific recommendation statement and documented approval of appropriate program managers (section X).*

Ceiling Increase Request:

- _____ Provide a specific statement of purpose (section I).*
- _____ Describe previous actions and current problems (section II).*
- _____ Describe what the ceiling increase will be used for (section II).*
- _____ Discuss any new threats to public health, welfare, or the environment as they relate to NCP criteria (section III).
- _____ Demonstrate that the site meets emergency or consistency exemption requirements if a \$2 million exemption has been granted previously (section V, if applicable).
- _____ Describe remaining actions (section V).*
- _____ Summarize costs of the current and proposed ceilings (section V).*
- _____ Provide a specific recommendation statement and documented approval of appropriate program managers (section IX).*
- _____ Identify the strategy for and results of the PRP search and notification process (Enforcement Addendum). *

\$2 Million Exemption and Ceiling Increase Request:

- _____ Provide a specific statement of purpose (section I).*

* Denotes information for all AMs. Other items should be discussed as appropriate, given site circumstances.

EXHIBIT 10. REVIEW CHECKLIST

\$2 Million Exemption and Ceiling Increase Request (continued):

- _____ Describe previous actions and current problems (section II).*
- _____ Describe what the ceiling increase will be used for (section II).*
- _____ Discuss new threats to public health, welfare, or the environment as they relate to NCP criteria (section III)
- _____ Demonstrate that the site meets the emergency or consistency exemption requirements or both (section V).*
- _____ Describe remaining actions (section VI).*
- _____ Summarize costs of the current and proposed ceilings (section VI).*
- _____ Provide a specific recommendation statement and documented approval of appropriate program managers (section X).*
- _____ Identify the strategy for and results of the PRP search and notification process (Enforcement Addendum). *

Change in the Scope of Response Request:

- _____ Provide a specific statement of purpose (section I).*
- _____ Describe previous actions and current problems (section II).*
- _____ Discuss any new threats to public health, welfare, or the environment as they relate to NCP criteria (section III).
- _____ Describe remaining actions (section V). *
- _____ Describe any ARARs that will be complied with as a result of the proposed change in work (section V).
- _____ State that costs will remain within the current project ceiling (section V).*
- _____ Provide a specific recommendation statement and documented approval of appropriate program managers (section IX).*

_____ * Denotes information for all AMs. Other items should be discussed as appropriate, given site circumstances.

EXHIBIT 11. CONCURRENCE FOR NATIONALLY SIGNIFICANT OR PRECEDENT-SETTING REMOVALS

SUBJECT: Request for Concurrence on Proposed Nationally Significant or Precedent-Setting Removal
FROM: Regional Administrator (or delegated Regional Manager)
THROUGH: Regional Superfund Division Director (as appropriate)
TO Director, Office of Emergency Management

The purpose of this memorandum is to request your concurrence on the proposed removal action at the _____ site in _____. Redlegation of Authority R-14-2 gives you the authority to concur on nationally significant or precedent-setting removals.

The OSC has discussed this proposed removal with staff of the Office of Emergency Management's Program Operations and Coordination Division (POCD). POCD has advised the OSC that this removal is considered nationally significant or precedent-setting because _____

The Action Memorandum is attached for your review. My approval awaits your concurrence.

Concur

Director, Office of Emergency Management

Date

According to the redelegation, authority to non-concur remains with Assistant Administrator. If you choose not to concur on this action, please forward this memorandum to the Assistant Administrator.

Non-Concur:

Assistant Administrator for Solid Waste and Emergency Response

Date

APPENDIX A: SHORT-FORM ACTION MEMORANDUM TEMPLATE

\$250,000/\$50,000 Action Memorandum²⁷

SUBJECT: Action Memorandum for a Removal Action at the XXXX site pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104.

FROM: Joe Osc, OSC
Emergency Response Branch (Region specific)

THRU: Bob Manager, Chief
Emergency Response Branch (Region specific)

TO: Sally Director, Director
Superfund Division (Region specific)

I. Purpose

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the XXXXX Site located in [city], [County], [state] pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104.

II. Site Information

A. Site Description

Site Name:
Superfund Site ID (SSID):
NRC Case Number:
CERCLIS Number:
Site Location:
Lat/Long:
Potentially Responsible Party (PRP):
NPL Status:
Removal Start Date:

B. Site Background

1. Removal Site Evaluation

²⁷ Regional Administrators may redelegate to designated On-Scene Coordinators (OSCs) the authority to determine the need for emergency response and to approve and initiate removal actions costing up to \$250,000 where site conditions constitute an emergency and up to \$50,000 where site conditions do not constitute an emergency. OSCs must check their specific Regional delegations to determine the level to which they have been granted the programmatic authority to respond to a release or threatened release of a hazardous substance, pollutant, or contaminants. Some Regions may not have fully redelegated this programmatic authority to OSCs.

Discuss the history of the incident or release, including the time, date and location of the incident, the type of incident that occurred, and the facts concerning the discovery of the release

2. Physical location and Site characteristics
Describe the site's physical location in terms of surrounding land use, population size, and distances to nearest populations and other reference points.
3. Release or threatened release into the environment of a hazardous substance, pollutant or contaminant.
List the hazardous substances as defined by section 101(14) of CERCLA, or pollutants or contaminants as defined by section 101(33) of CERCLA known to be present at the site. (Note: Pollutants or contaminants alone are generally insufficient to support a 106(PR)P lead) action. A release of a hazardous substance should be documented in the AM in support of a PRP-lead removal.)

III. Threats to Public Health Welfare or the Environment

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants.

Explain how this incident meets the requirement of a threat to public health or welfare or a threat to the environment for initiating a removal. Include information on the manner of release or potential release and the potential environmental or human health receptors.

B. Check applicable factors (from 40 CFR 300.415) which were considered in determining the appropriateness of a removal action:

- ___ Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].
- ___ Actual or potential contamination of drinking water supplies or sensitive ecosystems [300.415(b)(2)(ii)].
- ___ Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].
- ___ High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate [300.415(b)(2)(iv)].
- ___ Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415(b)(2)(v)].
- ___ Threat of fire or explosion [300.415(b)(2)(vi)].
- ___ The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)].
- ___ Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

IV. Endangerment Determination under CERCLA Section 104: Pollutant or Contaminants

(This section is optional and is only for Removal Actions involving pollutants or contaminants) Actual or threatened releases of pollutants and contaminants from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. Selected Removal Action and Estimated Costs

A. Situation and Removal Activities to Date

1. Current Situation.
Describe the current situation.
2. Removal activities to date:
Describe any ongoing removal activities taken by other government or private parties that are currently being performed but have not been previously discussed. Indicate the dates and effectiveness of these activities.
 - a. Federal Government/Private Party
 - b. State/local
3. Enforcement
Describe ongoing enforcement activities and/or include the following language:
Where the responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

B. Planned Removal Actions

1. Proposed action description
Include a description of the action to be taken. Describe the tasks involved in the proposed response to the public health, welfare, and environmental threats discussed in section III of the AM. To the extent that it is known at the time, describe the removal, including ultimate disposition of contaminants.
2. Contribution to remedial performance
The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the site.
3. ARARs
List Federal and state ARARs identified for the site that are deemed practicable, if any and if known at time of removal. Provide at least the following language:

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is

practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted. .

4. Project Schedule

Specify the anticipated time needed to perform the preventative, stabilizing, and/or mitigative (cleanup) response actions to the threats posed by the site.

C. Estimated Costs*

Contractor costs (ERRS/START staff, travel, equipment)	
Other Extramural Costs (Strike Team, other Fed Agencies)	
Contingency costs (20% of subtotal)	
Total Removal Project Ceiling	

*EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA. "

VI. Expected Change in the Situation Should Action Be Delayed or Not Taken

A delay in action or no action at this Site would increase the actual or potential threats to the public health and/or the environment.

VII. Outstanding Policy Issues

None

VIII. Approvals

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the Site.

Conditions at the site meet the NCP section 300.415(b) criteria for a removal action and through this document, I am approving the proposed removal actions. The total project ceiling is \$250,000, this amount will be funded from the Regional removal allowance.

Joe Osc,
Federal On-Scene Coordinator

Date

IX. Endangerment Determination under CERCLA Section 106: Hazardous Substances

“Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.”

Bob Manager, Chief
Emergency Response Unit
[Only in case of Endangerment Determination]

Date

APPENDIX B: REFERENCES²⁸

Guidance

- [1] OSWER Directive 9360.0-32, "Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA" (August, 1993)
- [2] OSWER Directive 9280.0-02B, "Policy on Floodplains and Wetlands Assessments for CERCLA Actions" (August 6, 1988)
- [3] OSWER Directive 9360.0-12, "Guidance on Implementation of the Revised Statutory Limits on Removal Actions" (April 6, 1987)
- [4] OSWER Directive 9360.0-12A, "Final Guidance on Implementation of the 'Consistency' Exemption to the Statutory Limits on Removals" (June 12, 1989)
- [5] OSWER Directive 9360.3-02, Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions" (August 1991)
- [6] OSWER Directive 9833.3A-1, "Final Guidance on Administrative Records for Selecting CERCLA Response Actions" (December 3, 1990 under revision 2008)
- [7] OSWER Directive 9360.2-02, "Policy on Management of Post-Removal Site Control" (December, 1990)
- [8] OSWER Directive 9375.1-4-W, "Guidance for State-Lead Removal Actions" (July 10, 1987)
- [9] OSWER Directive 9380.2-11, "Administrative Guidance for Removal Program Use of Alternatives to Land Disposal" (August 1988)
- [10] OSWER Directive 9360.3-05, "Superfund Removal Procedures: Public Participation Guidance for On-Scene Coordinators: Community Relations and the Administrative Record: (June 1992)
- [11] "Policy on Use of Institutional Controls at Hazardous Waste Sites," Memorandum from E. LaPointe to H. Longest et al. (October 28, 1988)
- [12] "Use of Removal Authority to Completely Clean Up NPL Sites," Memorandum from T. Fields to Regional Branch Chiefs (January 29, 1988)
- [13] OSWER Directive 9360.0-42, "Amendment to the Action Memorandum Guidance and Removal Cost Management System to Address Calculation of Removal Action Project Ceilings" (November 5, 2001)
- [14] OSWER Directive 9360.3-06, "Superfund Removal Procedures: Removal Enforcement Guidance for On-Scene Coordinators" (April 1992)

²⁸ Bracketed numbers appear throughout the text and correspond to the references listed in this appendix. These references may be consulted for additional information on specific topics affecting the preparation and content of AMs.

- [15] OSWER Directive 9360.3-03, "Superfund Removal Procedures: Removal Response Reporting: POLREPS and OSC Reports" (January 1993)
- [16] OSWER Directive 9360.3-08, "Superfund Removal Procedures: Removal Response Decision: Site Discovery to Response Decision" (March 1996)
- [17] OSWER Directive 9360.0-34, "Determination of Imminent and Substantial Endangerment for Removal Actions" (August 19, 1993)
- [18] OSWER Directive 9345.4-05, "Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluation Asbestos at Superfund Cleanups" (August 10, 2004)
- [19] "Vermiculite Ore Asbestos Sites: Evaluating Potential Indoor Residential Contamination" memo dated October. 3, 2006 from Deborah Y. Dietrich, Director, OEM
- [20] OSWER Directive 9230.0-97, "Superfund Response Actions: Temporary Relocations Implementation Guidance" (April 2002)
- [21] "New Outcome Measures for the Removal Program, Fiscal Year 2008" (and attachments) memo dated December 28, 2007 from Deborah Y. Dietrich, Director, OEM
- [22] "FY2008 Emergency Response and Removal Outcome Measures Handbook" (May 2008)
- [23] OSWER Directive 9360.3-03, "Guidance for Preparing Polreps/Sitreps" (December, 2007)
- [24] "Turnback Guidance for EPA Personnel Responding to Radiological Emergencies", memo dated December 7, 2006 from Susan Parker Bodine, Assistant Administrator, OSWER and Bill Wehrum, Acting Assistant Administrator OAR.
- [25] OSWER Directive Number 9285.312, Chapter 2 of the "Emergency Responder Health and Safety Manual: Radiation Health and Safety Implementation Plan" (July 28, 2005)
- [26] "Safety, Health and Environmental Management Program Guidelines: Radiation Safety and Health Protection Program: Guideline 38," (EPA/Safety, Health and Environmental Management Division, March 2006), ("SHEMP Guideline 38")

Manuals

- [27] OSWER Directive 9837.2, Enforcement Project Management Handbook (July 1989)
- [28] Removal Cost Management System. http://www.ertsupport.org/RCMS_Home.htm
- [29] OSWER Directives 9234.1-01 and 9234.1-02, CERCLA Compliance with Other Laws Manual: Parts I and II (August 1988 and August 1989 respectively)

Statutes and Regulations

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 USC Sections 9601-9675

The National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300

