United States Department of the Interior

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PEP - ENVIRONMENTAL COMPLIANCE MEMORANDUM NO. ECM 16-3

To: Heads of Bureaus and Offices

From: Mary Josie Blanchard, Acting Director
Office of Environmental Policy and Compliance

Subject: Central Hazardous Materials Fund (CHF) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Process for CHF Projects

The Office of Environmental Policy and Compliance (OEPC) is issuing this Environmental Compliance Memorandum under the authority provided by 381 Departmental Manual Chapter 4 to convey instructions and guidance through the Environmental Memoranda Series. This ECM establishes guidance on the CERCLA process for CHF funded sites. This ECM supersedes ECM14-2.

The guidance includes information on authorities and roles at CHF funded projects, bureau requirements prior to requesting CHF funding, CERCLA response actions, public participation and consultation responsibilities, and managing CERCLA projects. The guidance has been reviewed by each of the bureau representatives on the CHF's Technical Review Committee (TRC). If you have any questions, please contact Ms. Hoover either by email at: courtney_hoover@ios.doi.gov, or phone 303-445-2503.

Attachment

cc: REOs

CENTRAL HAZARDOUS MATERIALS FUND (CHF)

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) PROCESS FOR CHF PROJECTS

I. OVERVIEW

The Office of Environmental Policy and Compliance (OEPC) is issuing this Environmental Compliance Memorandum (ECM) pursuant to the authority provided in 381 Departmental Manual Chapter 4. This ECM applies to projects receiving funding from the Department's Central Hazardous Materials Fund (CHF) to undertake response action pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601, *et seq.*, as amended (CERCLA). The purpose of this ECM is to provide guidance to CHF site project managers in complying with the requirements and procedures of CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), codified at C.F.R. Part 300. This ECM updates and replaces ECM 14-2 originally issued on May 22, 2014.

In addition to following this guidance at projects receiving funding from the CHF, project managers should follow any bureau-specific CERCLA guidance, and consult with the Branch of Environmental Compliance and Response in the Department's Office of the Solicitor (Solicitor's Office) for specific questions on compliance with CERCLA and the NCP.

II. AUTHORITIES AND ROLES

Section 104 of CERCLA provides broad response action authority to the President. The President has delegated this authority to the Secretary of the Interior by Executive Order 12580, *Superfund Implementation*, as amended, to address the release or threatened release of hazardous substances on or from land under the Department's jurisdiction, custody, or control (with two exceptions: emergency removal action and selection of remedial action at sites on the National Priorities List (NPL)). The Secretary has re-delegated this authority to each bureau director to respond to releases or threatened releases on or from land under the bureau's jurisdiction, custody or control, as specified in Departmental Manual (DM) Chapter 7 Part 207, *CERCLA Implementation.*

The Department, or responsible bureau, serves as the CERCLA "lead agency" authorized to respond to releases or threatened releases, which are not emergencies, on or from land under its jurisdiction, custody or control.[1] The responsibilities of the lead agency include: 1) designating the remedial project manager (RPM) or on-scene coordinator (OSC) who is responsible for coordinating, monitoring, and directing response action at the site; 2) conducting site investigations to determine whether further response action is necessary; 3) evaluating response alternatives and designing and implementing the response action; 4) coordinating and soliciting

[1] Although the Department or responsible bureau does not have the authority to take action under CERCLA for emergency removal actions, emergency response actions may be carried out by the land managing bureau under other authorities, (e.g., in accordance with applicable local resource area hazardous materials incident contingency plans or pursuant to the bureau's general land management authorities). It is not appropriate to use CHF funding for emergency response actions because the Department does not have delegated CERCLA authority for these types of actions.

input from support agencies; 5) ensuring meaningful public participation at specified points in the process; 6) documenting the basis for, and selecting, response actions through the establishment and maintenance of the site Administrative Record (AR) file and issuance of an Action Memorandum or Record of Decision; and 7) coordinating with the Solicitor's Office to identify potentially responsible parties (PRPs) who might be capable of performing response action subject to the Department's or bureau's oversight or from whom response costs might be recovered.

At certain sites the Department or responsible bureau may choose to serve in a "support agency" role (e.g. at mixed ownership sites listed on the National Priorities List, other mixed ownership sites, and sites on Department land at which another Federal Agency is undertaking the response action[2]). A support agency is responsible for: 1) identifying a point of contact or coordinator to interface with the lead agency; 2) reviewing and commenting on major documents; and 3) identifying bureau-specific applicable or relevant and appropriate requirements (ARARs) that need to be attained by the implementation of the response action. At mixed ownership sites, the principles outlined in ECM 07-3, *"Statement of Principles for Collaborative Decision Making at Mixed Ownership Sites,"* should be the foundation for developing agreements with other Federal Agencies that define the agencies' respective responsibilities.

This ECM is tailored to those sites where the Department or delegated bureau is exercising lead agency authority. At sites where the Department or delegated bureau serves as a support agency, it is important to understand the CERCLA process to ensure that resource management objectives specific to the Department or bureau are incorporated in the decision-making process. This guidance does not address EPA or U.S. Coast Guard led emergency response activities (under the National Contingency Plan). Consult your bureau or local area contingency plan(s) for further information.

III. BUREAU REQUIREMENTS PRIOR TO REQUESTING CHF FUNDING

1) *Preliminary Assessment/Site Inspection*

Bureaus must demonstrate that conditions at a particular site trigger the applicability of CERCLA response action authority prior to being eligible to receive CHF funding. Specifically, there must be a release or a substantial threat of release of a hazardous substance on or from property under the Department's jurisdiction, custody, or control. In addition, in accordance with ECM 16-2, *"Nomination Guidance,"* bureaus must complete a Preliminary Assessment/Site Inspection (PA/SI) or equivalent (e.g., Removal Site Evaluation, Resource Conservation and Recovery Act Facility Assessment) prior to receiving CHF funding for the site. *For more information, see EPA's "Improving Site Assessment: Integrating Removal and Remedial Site Evaluations," at http://nepis.epa.gov/Adobe/PDF/10001V5C.PDF.*

Upon identification of a potential release or threat of release of hazardous substances, bureaus will conduct a Preliminary Assessment ("PA") to assess whether a site requires further

[2] For sites where another Federal Agency is undertaking a CERCLA response action on land managed by the Department, ECM 15-3 "*Authorizing CERCLA Response Actions Undertaken by Other Federal Agencies on DOI-Managed Lands*" must be followed.

investigation or response. The purpose of a PA is to collect readily available information about the site and its surrounding area to determine if a hazardous substance release or threat of release exists, and whether further investigation is warranted to determine if the site could pose a potential threat to public health or the environment. *For more information on how to perform a PA, see Section 300.410 of the NCP and EPA's "Guidance for Performing Preliminary Assessments Under CERCLA," at: http://www.epa.gov/superfund/sites/npl/hrsres/#PA_Guidance, or the "Federal Facilities Remedial Preliminary Assessment Summary Guide," at http://www.epa.gov/fedfac/pdf/ff_pa_guide.pdf, and bureau-specific guidance, if applicable.*

If the bureau determines, based on the PA, that further investigation is warranted, the bureau must perform a Site Inspection ("SI"). The purpose of the SI is to augment the data collected during the PA to determine if additional site characterization or other response action is appropriate. The SI is not intended to determine the full extent of the contamination and does not include a site specific risk assessment. A conservative screening level risk assessment is typically included in an SI to provide an initial understanding of the potential site risk. *For more information on the purpose of and how to perform an SI, see Section 300.410 of the NCP and EPA's "OSWER9345.1-05 Guidance for Performing Site Inspections Under CERCLA: Interim Final," at: www.epa.gov/superfund/sites/npl/hrsres/si/sitoc.pdf, or "Federal Facilities Remedial Site Inspection Summary Guide," at: http://www.epa.gov/fedfac/pdf/ff_si_guide.pdf, and bureau-specific guidance if applicable.*

Bureaus are not required to prepare a Hazard Ranking System (HRS) score for the PA/SI. The HRS scores are prepared by EPA at its discretion for sites on the Federal Agency Hazardous Waste Compliance Docket.

2) ***Potentially Responsible Parties (PRPs) and Cost Recovery***

Part 518, Chapter 2 of the Departmental Manual requires that bureaus and offices "aggressively pursue PRPs to correct their contamination of Departmental lands and facilities or to recover costs of cleanup." In addition, the Departmental Manual, 207 DM 7, delegates CERCLA enforcement and settlement authority to the Solicitor. As required in ECM 16-2, "*Nomination Guidance,*" a PRP search or the equivalent (e.g., documentation that clearly establishes whether that a PRP exists) must have been initiated or completed before a project is eligible to be funded by the CHF. The PRP search should identify whether there are any viable responsible parties that the Department can engage to seek cost avoidance or cost recovery. The bureau project manager should request Solicitor's Office assistance in planning and overseeing PRP searches that have not been completed prior to applying for CHF funding. If the search has been completed by the bureau, a copy of the report and all underlying documentation must be provided to the Solicitor's Office for review. The Solicitor's Office is responsible, in coordination with the bureau, for developing and pursuing the enforcement case against PRPs for CHF-funded sites. *For more details on cost recovery requirements for CHF-funded sites, see ECM 13-2, "Central Hazardous Materials Fund Financial Management Guidance," and ECM 13-3, "Central Hazardous Materials Fund Cost Recovery Guidance."*

For more information on conducting a PRP search, bureau project managers should consult with the Solicitor's Office; see also EPA's "PRP Search Manual," at: http://www.epa.gov/oecaerth/resources/publications/cleanup/superfund/prpmanual/prp-man-chap1-09.pdf, and bureau-specific guidance, if applicable.

3) ***Occupational Safety and Health***

CHF funded projects are required to complete a site-specific risk or hazard assessment prior to conducting site activities by *Department or bureau personnel* in accordance with regulations promulgated by the Occupational Safety and Health Administration ("OSHA"), *29 CFR § 1910.120.* Note: a workplace risk or hazard assessment is different and distinct from an environmental risk assessment. The assessment is a preliminary evaluation of the existing hazards at a site to determine if any specific plans, training, equipment, monitoring, or other site-specific health and safety requirements are necessary or appropriate for the site, such as a site-specific Health and Safety Plan (HASP). The risk evaluation is completed in addition to a contractor's HASP, as required under the NCP for intrusive field activities (e.g., sample collection or cleanup activity). The intent of the evaluation is to ensure that the land management agency has taken appropriate precautions to protect staff and visitor safety throughout the response action selection and cleanup process. *If necessary, it is appropriate to use CHF funding for the above-listed OSHA requirements for the site. Please refer to bureau-specific guidance for additional occupational health and safety requirements, and contact bureau occupational health and safety specialists or industrial hygienists for assistance. If a risk or hazard assessment is not completed prior to receiving CHF funding, CHF funding may be used to develop this assessment.*

The results of the site-specific risk or hazard assessment will be used to determine whether a site-specific HASP for Department or bureau staff is required. Some bureaus call their bureau specific document a Site Management Plan, or a Contaminated Site Management Plan to distinguish between the bureau's plan and the contractor's. It is important that the Department or bureau ensure that all activities are accounted for in a site-specific safety plan; the contractor's HASP may not include bureau or Department activities and will need to be supplemented with a specific safety plan to meet OSHA requirements. *See bureau-specific guidance for occupational health and safety requirements, and contact bureau occupational health and safety specialists or industrial hygienists for assistance. For information on managing health and safety issues at hazardous waste sites use the National Institute for Occupational Safety and Health's "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," at: https://www.osha.gov/Publications/complinks/OSHG-HazWaste/4agency.html.*

4) ***Eligibility for CHF Funding***

After the completion of a PA/SI, initiation or completion of a PRP search, and a determination by the bureau that additional CERCLA response action is necessary at a site and is a priority for the bureau or Department, the project is eligible for consideration of funding from the CHF. Nominations for project funding must follow the ECM 16-2, "*Nomination Guidance.*" Projects receiving CHF funding must be managed in accordance with ECM 13-2, "*Central Hazardous Materials Fund Financial Management Guidance,*" and ECM 13-3 "*Central Hazardous*

Materials Fund Cost Recovery Guidance." The following sections detail CERCLA response actions and associated activities that may be performed using CHF funding.

IV. CERCLA RESPONSE ACTIONS

CERCLA authorizes two types of response actions: remedial and removal. The information gathered during the PA/SI provides the basis for determining whether or not a response action is necessary and, if so, whether the action should be a removal action, remedial action, or both.

1. Removal Actions

Removal actions are response actions that can be selected and implemented relatively quickly to prevent, minimize, or mitigate risks to public health, welfare, or the environment associated with a release or threatened release of a hazardous substance. A removal action may be either an interim or final action at a site, and the removal action may be done in conjunction with a subsequent remedial action as discussed in *Section IV. 2. Remedial Actions*. There are a wide range of activities that may be taken under a removal action such as restricting access through signage, fencing, or other institutional controls, containing contaminated materials to prevent migration, or excavating contaminated materials and consolidating them in an onsite repository or disposing of them in an appropriate offsite facility. Before implementation of removal action, the lead agency must determine that a removal action is appropriate based on the criteria outlined at 40 CFR 300.415(b)(2).

Removal actions are grouped into three time-related categories in which the action must be initiated in order to protect public health and the environment. Non-time-critical removal actions are used when there is a planning period of at least six months before on-site activities must be initiated. Time-critical removal actions are used when the risks existing at the site require that on-site action be initiated within six months of determining that a removal action is necessary. Emergency removal actions are used when site risks dictate that on-site activities must be initiated within hours or days of determining that a release or a threat of release must be addressed to protect public health or the environment. The Department and bureaus do not have delegated CERCLA authority to conduct emergency removal actions. *Bureaus may have independent land management authority, including those in accordance with their local resource area hazardous materials incident contingency plans, to perform emergency response actions using non-CHF funding.*

The requirements for removal actions vary depending on the type of action performed. The following sections outline the significant requirements associated with conducting non-time-critical and time-critical removal actions.

1.1 Non-Time-Critical Removal Actions

Upon determination that a removal action is necessary and appropriate and that site risks allow for a planning period of six months or longer before on-site activities begin, the bureau must undertake the following steps. First, the bureau must document the decision to initiate an Engineering Evaluation/Cost Analysis ("EE/CA") in an EE/CA Approval Memorandum.

The EE/CA Approval Memorandum documents the site-specific factors, including the specific conditions outlined in Section 300.415(b)(2) of the NCP, that support the decision to conduct a non-time-critical removal action. Refer to bureau specific delegation of authorities for additional guidance on the administrative level at which this memorandum should be signed.

Upon issuing the EE/CA Approval Memorandum, the bureau initiates the EE/CA process. The objectives of the EE/CA are to: 1) characterize the nature and extent of contamination at the site; 2) develop a conceptual site model and a streamlined risk assessment, 3) identify ARARs; 4) develop removal action objectives; 5) identify and analyze potential removal alternatives; 6) conduct a comparative evaluation of the alternatives; and 7) recommend a removal action alternative. In order to properly characterize the nature and extent of contamination, a sampling and analysis plan will be developed (with appropriate development of Data Quality Objectives (DQO), which includes a field sampling plan and a quality assurance project plan (40 CFR §300.415(b)(4)). Risk assessor data needs must be addressed in the DQOs. Additionally, a health and safety plan which addresses the activities conducted at the site will need to be developed and approved by authorized bureau and/or Department personnel. The potential alternatives must be evaluated based on their effectiveness in addressing short term and long term risks, the technical feasibility of implementation, and cost. Long-term management requirements called post-removal site controls should also be considered in determining the appropriate alternative. *See Section IV. 1.4 Long-Term Considerations for Removal Actions for more details.*

In evaluating the effectiveness of removal action alternatives, the primary consideration should be the degree to which an alternative protects human health and the environment. In addition, non-time-critical removal action alternatives are evaluated for their ability to comply with "applicable or relevant and appropriate requirements" (ARARs), which include other Federal laws, or more stringent State, standards, requirements, criteria, or limitations determined to be legally applicable *or* relevant and appropriate to the circumstances at a given site (CERCLA Section 121(d)(2)(A)). While any *remedial action* selected must satisfy all ARARs adopted by the bureau for the site, removal actions must only satisfy ARARs "to the extent practicable considering the exigencies of the situation" (40 C.F.R. §300.415(j)). This latter clause is primarily a consideration for time critical and interim response actions. Under circumstances where the non-time-critical removal action is expected to be the first and final action at the site, the selected removal action must satisfy all adopted ARARs. *Project managers must consult with the Solicitor's Office to determine what standards should be adopted as ARARs at the site.* A streamlined risk assessment provides the appropriate level of detail to support a time-critical or non-time critical removal action for a site or component of a site. As noted in Section 2, Remedial Actions, a baseline human health assessment and/or ecological risk assessment should be conducted only when site conditions are sufficiently complex to warrant a more comprehensive site investigation and evaluation of alternatives than is typically provided in an EE/CA.

For more information on ARARs, see EPA's guidance, OSWER Directive 9234.1-01, "CERCLA Compliance With Other Laws Manual: Part I" at: http://www.epa.gov/superfund/policy/remedy/pdfs/540g-89006-s.pdf, and OSWER Directive 9234.1-02, "CERCLA Compliance With Other Laws Manual: Part II" at: http://www.epa.gov/superfund/policy/remedy/pdfs/540g-89009-s.pdf.

Upon completion of the EE/CA Report, the bureau shall issue an Action Memorandum which is the decision document for removal actions and provides information on the need for the removal action, a description of the proposed action and cleanup levels, and the rationale for why the proposed action was selected. The Action Memorandum also documents the extent to which the adopted ARARs will be attained by the removal action and the anticipated project cleanup schedule.

The Action Memorandum is signed at a level designated by each bureau. After the Action Memorandum is signed, the non-time-critical removal activities are initiated. *For information about the signature process within a specific bureau, contact the bureau's Technical Review Committee Representative. For more information on preparing an Action Memorandum, see EPA's "Superfund Removal Guidance for Preparing Action Memoranda," at: http://www.epa.gov/oem/docs/oil/ncp/Superfund_removal_guide_for_preparing_action_memo.pdf, and bureau-specific guidance if applicable.*

For more information on conducting non-time-critical removal actions, see EPA's "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA" at: http://www.epa.gov/superfund/policy/remedy/pdfs/540f-94009-s.pdf, and bureau-specific guidance if applicable.

An AR file must be developed for each non-time-critical removal action selected (as well as other response actions selected) to document the basis for the decision. The AR must be established no later than when the EE/CA Approval Memorandum is signed and must be made available to the public when the EE/CA Report is made available for public comment. *Project Managers must consult with the Solicitor's Office to determine which records are appropriate and required for a site's administrative record. For more information on Administrative Record Requirements for time-critical removal actions, see Section V. "Documenting the Basis for Decisions" of this guidance, and ECM 13-4, "Central Hazardous Material Fund Administrative Record Guidance," and any bureau-specific guidance.*

The bureau must provide for meaningful community involvement in the selection of non-time-critical removal actions, as specified by the NCP (40 CFR §300.415(n) (3) and (4) and §300.820(a)). *See Section VI. Public Participation for more information on community involvement requirements.*

1.2 Time-Critical Removal Actions

Time-critical removal actions are performed when it is determined that site risks dictate that the removal action must be initiated immediately (within six months). An EE/CA is not required for time-critical removal actions though, documentation of the removal action decision, based on an evaluation of the NCP factors outlined at 40 CFR §300.415(b)(2), must be recorded and placed in the site's AR. An Action Memorandum must be issued. The Action Memorandum must include a description of the site conditions and potential risk upon which the decision to implement a time-critical removal action is based; the removal action to be taken; and identifies the steps, if any, the bureau expects to take after the removal action has been implemented (including any long-term management needs that should be considered). *See Section IV 1.4 Long-Term Considerations for Removal Actions*

Please refer to Section IV 1.1 Non-Time-Critical Removal Actions for more on Action Memoranda.

To properly document the basis for the decisions, an administrative record must be established for time-critical removal actions within 60 days of the initiation of on-site removal activities. *For more information on Administrative Record Requirements for time-critical removal actions, see Section V. "Documenting the Basis for Decisions" of this guidance, and ECM 13-4, "Central Hazardous Material Fund Administrative Record Guidance," and any bureau-specific guidance.*

The bureau must provide for meaningful community involvement in the implementation of time-critical removal actions, as specified by the NCP (40 CFR §300.415(n)(2) and (3) and §300.820(b)). *See Section VI. Public Participation for more information on community involvement requirements.*

1.4 Long-Term Considerations for Removal Actions

As mentioned above, there are a wide variety of alternatives that may be implemented as removal actions. The bureau must identify controls, restrictions and their estimated costs prior to selecting a removal action. Such analysis of alternatives should take into consideration other bureau and Department priorities and long term concerns.

Five-Year Reviews ("5YR") are not statutorily required at sites where a removal action has been implemented. A 5YR is required for remedial action sites where remaining on-site hazardous substances, pollutants, or contaminants exceed levels that allow for "unlimited use and unrestricted exposure" as specified in 40 CFR §300.430(f)(4)(ii). *See Section 2.4 Long-Term Protectiveness of the Remedial Action for more information on 5YRs.*

Nevertheless, although a 5YR is not required at removal action sites, bureaus shall maintain an inventory comprising of information on each CHF site at which waste remains on site and is subject to institutional and engineering controls or other access or use restriction. Bureaus shall develop a plan (including timeframes for monitoring and evaluation) to ensure that the controls are maintained and evaluated to ensure the long-term protectiveness of the removal action.

2. Remedial Actions

Remedial actions are actions taken to eliminate unacceptable risks to human health or the environment resulting from releases or threatened releases of hazardous substances. Remedial actions may be initiated, or may be used, in addition to removal actions. Typically, selecting a remedial action is appropriate when site conditions are sufficiently complex to warrant a more comprehensive site investigation and evaluation of alternatives than is conducted through an EE/CA. For example, remedial actions might be more appropriate when a site covers a larger geographic area, and/or has more than one medium (soil, surface or groundwater, air) affected by contamination.

Unlike removal actions, there are not multiple categories of remedial actions. All remedial responses have two main phases: 1) a Remedial Investigation/Feasibility Study ("RI/FS"); and 2) a Remedial Design/Remedial Action. The following sections outline the requirements for these phases of remedial action.

2.1 Remedial Investigation/Feasibility Study (RI/FS)

Prior to selecting a remedial action, the bureau must prepare a remedial investigation (RI) report and a feasibility study (FS) following the PA/SI.

The purpose of the RI is to fully characterize the nature and extent of the contamination at the site in order to assess risks, evaluate ARARs, and develop potential remedial alternatives. The RI is a more in-depth investigation than a SI. The RI process includes, but is not limited to, identification of actual or potential pathways for exposure, characteristics of the hazardous substances (e.g., toxicity, concentrations), vertical and horizontal extent of the contamination, and the risks associated with actual or potential exposure to contamination of the site. The data collected in the RI must be informed by the data needs identified by risk assessors, as well as data needed to evaluate remedial action alternatives in the FS, all of which are described in the DQO process that precedes the investigation. The DQO process ensures that the appropriate quality and quantity of data are collected in the RI. *For more information on the RI/FS, see EPA's "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA Interim Final," and bureau-specific guidance if applicable.*

The bureau must establish the AR for selection of a remedial action no later than when the RI is initiated, and it must publish a public notice of availability prior to the initiation of RI field activities. *For more details on the AR, see Section V. "Documenting the Basis for Decisions" of this guidance, and ECM 13-4 "Central Hazardous Material Fund Administrative Record Guidance," and bureau-specific guidance.*

2.1.1 RI/FS - Scoping and Workplan

The first phase of the RI/FS process is a scoping/planning phase that the bureau undertakes. During the scoping/planning phase, the bureau should conduct the following activities: 1) collect and analyze existing data; 2) determine the preliminary site boundaries and/or initial operable units; 3) begin the process of identifying potential ARARs; 4) identify initial DQOs; and 5) prepare project plans. *For a discussion and resources available on ARARs, see Section IV. 1.1 Non-Time-Critical Removal Actions. For more information on developing DQOs, see EPA's "Data Quality Objectives Process for Hazardous Waste Site Investigations" at: http://www.epa.gov/quality/qs-docs/g4hw-final.pdf, or bureau-specific guidance if applicable.*

An RI work plan documents the decisions made during the scoping phase and outlines tasks to be completed during the RI/FS. The following generally should be included in the work plan: 1) site management strategy; 2) remedial action goals; 3) sequence of actions and investigations; and 4) background on the site, including physical characteristics and previous site activities.

The RI work plan should address how the following plans will be prepared or specify that these plans will be addressed as separate documents and prepared at the same time:

- A sampling and analysis plan ("SAP") that details the process for obtaining data, and includes a quality assurance project plan ("QAPP") and field sampling plan ("FSP"). The purpose of the SAP is to ensure that sample collection activities are performed in accordance with technically accepted protocols and meet and expand upon the DQOs established during the scoping/planning phase.

- A site-specific HASP prepared by contractors who will be performing work on the site. A site-specific HASP may also be required for work being performed by Department or bureau employees. *See Section III. C. Occupational Safety and Health for more information.*

- A site-specific community involvement plan ("CIP") that details community relations activities and how objectives will be met. *For more information on community involvement, see Section VI. Public Participation.*

- The RI Work Plan may be subsumed by the SAP as long as the SAP contains all of the elements of a work plan.

For more information on scoping the RI/FS, see EPA's OSWER Directive 9355.3-01FS1 "Getting Ready: Scoping the RI/FS" at: http://www.epa.gov/superfund/policy/remedy/pdfs/93-55301fs1-s.pdf.

2.1.2 RI - Site Characterization and Treatability Studies

The site characterization phase of the RI builds upon the activities performed in the PA/SI. During site characterization, the bureau: 1) conducts field investigations; 2) analyzes samples collected during these investigations; 3) determines the nature and extent of the contamination; 4) refines the conceptual site model and conducts a baseline risk assessment to identify current and potential risks to human health and the environment; 5) continues to identify potential ARARs; and 6) evaluates additional data needs. *For more information on performing risk assessments, see EPA's "Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A) Interim Final" at: http://www.epa.gov/oswer/riskassessment/ragsa/pdf/rags_a.pdf, and "Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments - Interim Final" at: http://www.epa.gov/oswer/riskassessment/ecorisk/ecorisk.htm.*

Treatability studies further evaluate the alternatives if potential technologies are not capable of being adequately evaluated based on currently available information. The need for and scope of a treatability study is identified during the scoping phase. Normally, a literature search is completed during the scoping phase to determine whether potential technologies can be practical alternatives to treat the site's waste. *For more information on treatability studies, see EPA's*

"Guide to Conducting Treatability Studies under CERCLA" at: http://www.epa.gov/superfund/policy/remedy/pdfs/540r-92071a-s.pdf, and "Treatability Studies Under CERCLA: an Overview" at: http://www.epa.gov/superfund/policy/remedy/pdfs/93-80302fs-s.pdf.

A RI report is developed to document the results and work accomplished during the RI. *For more information on site characterization and treatability studies, see the EPA's "The Remedial Investigation, Site Characterization and Treatability Studies" at: http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=600016JW.txt*

2.1.3 FS - Developing and Screening Alternatives and Detailed Analysis

The analysis of alternatives for the remedial action is called the feasibility study ("FS"). The first phase of the FS is developing and screening remedial action alternatives (although often the development of alternatives begins during the scoping phase when potential response scenarios might first be identified.) Typically the main focus of the FS covers the chemicals posing a potentially significant risk or exceeding ARARs at the site. During the development and screening of alternatives phase of the FS, the bureau will: 1) establish and refine remedial action objectives; 2) develop general response actions; and 3) identify and screen potential technologies. *For more information on developing and screening of remedial action alternatives, see EPA's OSWER Directive 9355.3-01FS3 "The Feasibility Study, Development and Screening of Remedial Action Alternatives" at: http://www.epa.gov/superfund/policy/remedy/pdfs/93-55301fs3-s.pdf.*

During the detailed analysis phase of the FS, the bureau will evaluate and compare alternatives against the following nine remedy selection criteria outlined in the NCP: 1) overall protection of human health and the environment; 2) compliance with ARARs; 3) long-term effectiveness and permanence; 4) reduction of toxicity, mobility, or volume; 5) short-term effectiveness; 6) implementability; 7) cost; 8) State acceptance; and 9) community acceptance, in accordance with 40 CFR §300.430(e)(9). In order to be eligible for selection, a remedial alternative must be found to protect against unacceptable risks (Criterion 1 - protectiveness) and to comply with site ARARs (Criterion 2 - attainment of ARARs), which are known as "threshold criteria," and must be attained. Criteria 3 through 7 are considered "balancing criteria," and tradeoffs among these criteria are evaluated to determine the best alternative for the site. Criteria 8 and 9 are considered "modifying criteria" because new information or feedback from the State or community may modify the preferred remedial action alternative. *For more information on the detailed analysis of remedial action alternatives, see EPA's OSWER Directive 9355.3-01FS4 "The Feasibility Study: Detailed Analysis of Remedial Action Alternatives" at: http://www.epa.gov/superfund/policy/remedy/pdfs/93-55301fs4-s.pdf.*

2.2 Selection of the Remedy

After the evaluation and comparison of the alternatives is completed in the FS, a preferred alternative is selected. The preferred alternative is documented in a Proposed Plan and is released for public comment. The Proposed Plan: 1) summarizes the conclusions of the RI/FS; 2) briefly describes the remedial action alternatives that were considered; 3) identifies and

explains the rationale for the preferred alternative; 4) identifies the time and location of public meetings at which the public may offer verbal comments on the preferred alternative; and 5) identifies how the public can provide input into the remedy selection process. The Proposed Plan should also identify the location of the AR file and invite the public to review the file.

The Proposed Plan is a public participation document. It is added to the AR and information repository, which is the record storage area, typically near the site that includes the AR. A public notice of availability of the Proposed Plan and RI/FS and announcement of the public comment period should be announced in a local paper of general circulation prior to the initiation of the public comment period. *Public meetings might be required during this time, in accordance with the site's Community Involvement Plan (CIP). For more details on public participation, see Section V. Public Participation, Environmental Justice and Consultation Responsibilities.*

The Record of Decision (ROD) documents the decision selecting a remedial action for the site. It documents the rationale for the selection and establishes performance measures to be accomplished through the remedial action. The Assistant Secretary for Policy, Management, and Budget is the authorized signatory for RODs issued by the Department or one of the bureaus. The bureau must follow ECM 10-3, *"Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Record of Decision Surname Process,"* in addition to the surname process required by their bureau, to receive the Assistant Secretary's signature.

If, after a ROD is signed, the bureau determines that site conditions have changed or new site information is identified that requires changes to the selected remedy, the bureau must determine the appropriate action. There are three types of post-ROD changes: insignificant or minor changes; significant changes; and fundamental changes. The documentation required to document changes to the selected remedy necessary to address post-ROD changes is dependent upon the type of change. The post-ROD documentation falls into three categories: 1) a memorandum to file for insignificant or minor changes; 2) an "explanation of significant differences" ("ESD") for significant changes; or 3) a ROD amendment for fundamental changes.

For more information on preparing proposed plans, RODs, ROD amendments, and other remedy decision documents, see EPA's OSWER Directive 9200.1-23P "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents" at: http://www.epa.gov/superfund/policy/remedy/rods/pdfs/guide_decision_documents_071999.pdf, and EPA's "Toolkit for preparing CERCLA Records of Decision" at: http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100CF14.txt.

2.3 Remedial Design/Remedial Action

The Remedial Design/Remedial Action (RD/RA) involves the design and implementation of the selected remedy. Work performed in the remedial design and remedial action must be done in accordance with the requirements outlined in the ROD, as well as the terms of the applicable settlement agreement (e.g., Consent Decree).

The remedial design is an engineering phase following the selection of the remedy. During this phase, work plans, technical specifications, and drawings are developed based on the remedy defined in the ROD. During the remedial design phase, cost estimates for the construction of the remedy are further refined.

Upon approval of the remedial design, the remedial action is implemented. During the performance of the remedial action, oversight of field implementation is necessary to ensure compliance with plans and specifications.

After the remedial action is complete, the project will move into an operation and maintenance phase. During the operation and maintenance phase, the site is reviewed for the maintenance and effectiveness of the selected remedy.

2.4 Long-Term Protectiveness of the Remedial Action

Remedial actions customarily have long-term management considerations similar to removal actions. Regardless of the type of action, institutional and engineering controls that are part of the remedy must be maintained. For more information on planning and maintaining controls, *see Section V. 1.4 Long-Term Considerations for Removal Actions.*

2.4.1 Operation and Maintenance

The Operation and Maintenance (O&M) phase starts after the remedy has achieved the Remedial Action Objectives and Remediation Goals outlined in the ROD, and the remedy is determined to be operational and functional, except for groundwater or surface water restoration activities outlined in 40 C.F.R.§ 300.435(f)(4). There might be multiple remedies included in the ROD with their own unique O&M requirements. The purpose of O&M is to ensure that the remedy remains protective of human health and the environment, including the maintenance of engineering and institutional controls.

An O&M plan must outline what the bureau will do to maintain the long-term effectiveness of the remedy. Some types of O&M activities include groundwater and/or air monitoring; also, the remedy might require that access restrictions or other engineering and/or institutional controls remain in place and are enforced. The bureau must implement all necessary O&M activities to ensure the long-term protectiveness of the remedy.

For more information on operations and maintenance, see EPA's OSWER 9200.1-37FS "Operation and Maintenance in the Superfund Program" at: http://www.epa.gov/superfund/policy/pdfs/sheet.pdf, and OSWER Directive 9355.4-38 "Guidance for Monitoring at Hazardous Waste Sites: Framework for Monitoring Plan Development and Implementation" at: http://www.epa.gov/superfund/policy/pdfs/dir9355.pdf.

Five-Year Reviews

Where a remedy leaves hazardous substances on site at levels that do not allow for unlimited use and unrestricted exposure, the bureau must conduct a review of the remedy every five years,

called a Five-Year Review (5YR), to ensure that the remedy remains protective. Remedial actions that normally require 5YRs include such remedies as on-site repositories, groundwater treatment systems, and waste stabilization sites.

The 5YR period begins on the "trigger date," which is the date the first remedial action was initiated that left hazardous substances, pollutants, or contaminants at levels that do not allow for unlimited use and unrestricted exposure. The bureau is responsible for conducting 5YRs.

5YRs require a period of data review and analysis, site inspections, and community involvement. The bureau must plan ahead to ensure that 5YRs are completed within five years of the trigger date and every five years thereafter. The period of time necessary to complete each 5YR review is dependent on the complexity of the site, the level of community involvement and potentially other factors.

For more information on 5YRs, see the U.S. EPA's OSWER 9355.7-03B-P "Comprehensive Five-Year Review Guidance" at: Comprehensive Five-Year Review Guidance, and U.S. EPA's OSWER Directive 9355.7-18 "Recommended Evaluation of Institutional Controls: Supplement to the 'Comprehensive Five-Year Review Guidance" at: http://www.epa.gov/superfund/policy/ic/guide/641333.pdf.

V. PUBLIC PARTICIPATION, ENVIRONMENTAL JUSTICE, AND CONSULTATION RESPONSIBILITIES

Each bureau is responsible for fulfilling the NCP's public participation requirements during specific time frames for both removal and remedial actions. The following sections highlight the major requirements for public participation. It is recommended that for projects that are EPA led, or mixed ownership, that the bureau(s) work with EPA to ensure consistency with the community involvement process. *For more information on public participation, see EPA's "Superfund Community Involvement Handbook" at: http://www.epa.gov/superfund/community/cag/pdfs/ci_handbook.pdf and bureau-specific guidance if applicable.*

Community Involvement Plans

Community Involvement Plans ("CIP") are required for time-critical removal actions (where on-site activities are expected to continue beyond 120 days from the initiation of the removal action), for non-time-critical removal actions, and for remedial actions (40 CFR § 300.415(n) and 300.430(c)). The CIP is developed based on both interviews with community representatives and other relevant information. The purpose of the CIP is to outline specific community involvement activities that the bureau expects to undertake in order to ensure the public is given appropriate opportunities for involvement in site response action selection and implementation activities.

- For time-critical removal actions lasting more than 120 days and non-time-critical before removal actions, the bureau must complete a site-specific CIP within 120 days before the start of on-site removal activity

- For remedial actions, the bureau must complete a site-specific CIP prior to beginning the field work for the remedial investigation

The bureau must review the CIP before the Removal or Remedial Design phase to determine whether it should be revised to provide for additional community relations activities when appropriate. There may be other times throughout the process where it might be appropriate to review and revise the CIP. *Bureau project managers must consult with the Solicitor's Office on the CIP to ensure compliance with community involvement requirements.*

Administrative Record

Projects receiving funding from the CHF must follow the guidance on ARs in ECM 13-4, *"Central Hazardous Material Fund Administrative Record Guidance."*

The ARs must be established for every project where the bureau is the lead agency conducting a response action pursuant to CERCLA and the NCP. The AR contains the documents and/or other information that the Department or bureau considered or relied on the remedy, and it documents the community involvement for the project. *For more information on specific NCP and CHF requirements regarding ARs, see ECM 13-4, and bureau-specific guidance if applicable.*

Public Inspection and Comment

The bureau must notify the public, through a notice in a major local newspaper of general circulation, that ARs are available for public inspection during the following timeframes:

- Time-critical Removal Action: Within 60 days of initiation of on-site removal activity (40 CFR § 300.415(n)(2)(i); 40 CFR § 300.820(b)(1)).
- Non-time-critical Removal Action: When the EE/CA is completed and made available for public comment (40 CFR § 300.820(a)(1)).
- Remedial Action: At the initiation of the remedial investigation (40 CFR § 300.815(a)) and when the Proposed Plan is available for public review and comment (40 CFR § 300.430(f)(3)(i)(A)).

The bureau must provide a public comment period of not less than 30 days from when the above documents have been made available.

After the completion of the public comment period, a responsiveness summary must be prepared and provide written responses to "significant" comments. The responsiveness summary must be made available to the public in the project's AR.

Fact Sheets

The bureau must develop a fact sheet for remedial actions once the final Remedial Design has been completed and, if appropriate, provide a public briefing prior to beginning remedial action. 40 CFR § 300.435(c)(3).

Environmental Justice Responsibilities

Throughout the CERCLA process, the bureau must incorporate Environmental Justice (EJ) responsibilities into cleanup activities. The Department is responsible for ensuring that all individuals in the communities that might be impacted by a project have an equal opportunity to participate in the CERCLA process, regardless of race, color, national origin, and/or income. The OEPC will perform an initial screening of all CHF funded projects to identify whether or not there might be any EJ communities impacted. The results of this screening will be provided to the bureau's TRC representative and he/she will be responsible for sharing the results with his/her bureau's project managers. When a potential CHF project is identified by a bureau, the bureau should notify OEPC so that an EJ screening could be performed prior to completing the project's nomination package.

If an EJ Community is identified in the initial screening process, the project manager will be responsible for implementing measures that ensure that members of those communities are able to participate effectively in the CERCLA process. How the project will reach out to these communities must be incorporated into the project's CIP, if those communities have not already been identified in the CIP.

Consultation Responsibilities

Throughout the CERCLA process, the bureau may be responsible for consulting with one or more entities. Consultation may be required for purposes of complying with the National Historic Preservation Act and the Endangered Species Act. It is important to discuss the project with the Solicitor's Office, and/or your bureau's cultural and biological resource experts to determine if consultation is required, and the appropriate level. *For further details on tribal consultation, please see the Department of the Interior Manual (DOI DM Part 512)* and the *Department's Tribal Consultation Policy, and bureau-specific guidance if applicable.*

VI. CERCLA PROJECT MANAGEMENT

During the various scoping phases of removal and remedial actions, the bureau's project manager must develop a project management plan to address accountability and to ensure the timely completion of the project. The project management plan should include, but not be limited to, the following information:

1) Project management team composition, roles and responsibilities, and lines of communication;
2) Interested stakeholders who are, or should be, included in the process (e.g., U.S. EPA, Corps of Engineers, State agencies, environmental organizations, tribes);
3) Document management (including cost documents);
4) Cost recovery/cost avoidance strategy
5) Project constraints (e.g., technical, financial, legal, personnel);
6) Funding strategies for specific major phases or activities, such as the EE/CA, RI/FS, or RD/RA; and
7) A projected schedule for milestones toward cleanup.

Project management plans vary in detail depending on the complexity of the project and the stage of the project. For example, if a project is in a study or implementation phase, it would require a more robust project management plan than one in O&M. Project management plans are working documents that are updated to account for changes in scope, schedules, personnel, and other changes that could affect the project's management. They may be in any format that the project manager or team determines to be the most useful for managing the project, projecting out-year resource needs and detailing schedules for coordination with Federal and State regulatory agencies, and community involvement. Project management plans should be maintained as confidential documents, particularly in cost recovery/cost avoidance cases. Project management plans are subject to approval by the specific bureau TRC representative to ensure conformance to bureau and Department requirements. Refer to your agency's guidance on project management plans, if available.

VII. NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION (NRDAR)

CERCLA, 42 U.S.C. §§ 9601, et seq., as amended, is one of the laws that forms the legal foundation for the Department's NRDAR Program and provides trustees with the legal authority to carry out the NRDAR Program's responsibilities. CERCLA authorizes the Department to take appropriate actions necessary to restore natural resources (and services provided by those natural resources) managed or controlled by the Department that have been injured or destroyed by releases of hazardous substances. Federal agencies, States, and Tribes are authorized to act as "Trustees" on behalf of the public for the purpose of assessing and recovering damages for injury to natural resources. Damages must be used to restore, replace, or acquire resources equivalent to those injured. Trustees are also authorized to recover the costs of conducting damage assessments. While CHF funds may only be used on CERCLA cleanups, it should be noted that the Oil Pollution Act of 1990, 33 U.S.C. §§ 2701, et seq., authorizes a substantially similar natural resource damage liability scheme for the discharge (or substantial threat of discharge) of oil.

The particular Parts and Chapters of the Departmental Manual (DM) applicable to the NRDAR Program can be found in 112 DM 30, 207 DM 6, and 521 DM 1 – 3. These DM chapters outline the organization of the Program at the Department level, the delegation of authority of NRDAR activities, as well as the authorities that govern the program and the responsibilities of the Department and the bureaus. The Department's Office of Restoration and Damage Assessment (ORDA) oversees the Department's NRDAR Program and chairs the Department's NRDAR workgroup. The NRDAR workgroup members include a representative from each of the Department's five land managing bureaus, with technical support from the USGS (scientific), Office of Policy Analysis (economic), and the Office of the Solicitor (legal), and OEPC. The Department's NRDAR workgroup provides input into policy, guidance and funding determinations issued by ORDA to case teams conducting damage assessments and working on restoration projects.

Coordination among project teams conducting cleanups of sites contaminated with hazardous substances and case teams responsible for pursuing natural resource damage claims could provide benefits to the response agencies and trustees involved, and may lead to more cost effective cleanup and restoration. While not every site being cleaned up may involve a NRDAR claim, involving NRDAR case teams in the beginning could be of assistance. For example, areas where coordination could occur between the two programs and provide benefits could include, but are not limited to:

- Field investigations could be designed to gather information simultaneously useful to both the response agency and the trustees, coordination of the response and restoration processes could help avoid redundancies and reduce costs.
- Simultaneous consideration of response and restoration options should allow the response agency and trustees to balance the need for response to the contamination, and future restoration of the site.
- Closer coordination might increase the chances for a restoration-based settlement.
- Input from Trustees to the Remedial Project Manager might help the response agency to conduct a better remedy that incorporates restoration and reduces overall liability for project costs to the PRP.

For additional information on the Department's NRDAR program, project managers are instructed to contact the Department's Office of Restoration and Damage Assessment, or their respective bureau's NRDAR Workgroup coordinator. Contact information is available on the ORDA website at the following url: https://www.doi.gov/restoration/organization/addresses/.