



Superfund Task Force Recommendation 13

***Examine Opportunities to Achieve Protective Cleanup at
NPL-Caliber Sites Without Listing on the NPL***

Summary of Findings

July 2019

Office of Site Remediation Enforcement
Office of Enforcement and Compliance Assurance

EXECUTIVE SUMMARY

Contaminated sites that are on the National Priorities List (NPL) follow the processes for investigation, risk assessment and response actions described in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). In response to Recommendation 13 of the May 2017 Superfund Task Force Report, this workgroup focused its efforts on providing clarity for approaches that can be used to achieve protective cleanups at NPL-caliber sites not proposed for inclusion on the NPL. The workgroup examined existing federal, state and tribal approaches that may be used in lieu of designating releases as national priorities for long-term remedial evaluation and response (i.e., adding to the NPL).

The workgroup defined “NPL-caliber” for purposes of this evaluation and reviewed cleanup approaches other than adding a site to the NPL. The workgroup also developed a matrix of key elements to be considered when evaluating the use of an alternate authority at an NPL-caliber site. Finally, the workgroup evaluated a sample of NPL-caliber sites that are currently using non-NPL approaches for.

The workgroup’s summary findings include several conclusions and recommendations. Principal among them are:

- The success of using non-NPL approaches at sites with responsible parties is dependent on a commitment by the responsible parties to fully address the contamination at the site in cooperation with the state/tribe, the EPA, and the affected communities.
- There are established options for addressing NPL-caliber sites in lieu of adding the site to the NPL. The EPA should continue to assess all available options when considering potential responses at NPL-caliber sites and continue to consult with other federal, state and tribal remedial programs on what cleanup approach to use.
- A number of best management practices were identified by the workgroup. The EPA Regions, states, and tribes should continue to strive to incorporate these best management practices.
- Establishing expectations on applicable cleanup requirements and clearly defining the administrative path will minimize the need for costly revisions to the cleanup plan.
- The EPA should check-in on progress at NPL-caliber sites using non-NPL approaches to ensure cleanup actions are proceeding as expected.

While the Superfund program has the most significant experience addressing NPL-caliber sites, response activities under other approaches may be appropriate and available in certain situations.

CONTENTS

EXECUTIVE SUMMARY	i
Workgroup Members	iii
Acronyms and Abbreviations	iii
INTRODUCTION	1
BACKGROUND	1
IMMINENT and SUBSTANTIAL ENDANGERMENT	3
ANALYSIS of APPROACHES	4
KEY ELEMENTS, LESSONS LEARNED & BEST PRACTICES	9
SUMMARY OF CONCLUSIONS and RECOMMENDATIONS	14
REFERENCES/ADDITIONAL INFORMATION	15

Notably, the EPA has deferred thousands of sites from the Superfund program to other cleanup approaches. With the shared responsibility for cleaning up sites, we know there are opportunities for the EPA, states and tribes to expedite cleanup, reduce risks to human health and the environment, and make property available for reuse, a goal of the Superfund Task Force.

SFTF Recommendation 13 Workgroup

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Acronyms and Abbreviations

ASTSWMO: Association of State and Territorial Solid Waste Management Officials

BFPP: Bona-fide Prospective Purchaser

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act

CWA: Clean Water Act

GMUC: Groundwater Migration Under Control

HEUC: Human Exposures Under Control

HRS: Hazard Ranking System

ISE: Imminent and Substantial Endangerment

MOA: Memorandum of Agreement

MOU: Memorandum of Understanding

NCP: National Oil and Hazardous Substances Pollution Contingency Plan

NPL: National Priorities List

NRC: Nuclear Regulatory Commission

OCA: Other Cleanup Activity

OECA: Office of Enforcement and Compliance Assurance

OLEM: Office of Land and Emergency Management

OSWER: Office of Solid Waste and Emergency Response (now OLEM)

PRP: Potentially Responsible Party

RCRA: Resource Conservation and Recovery Act

SAA or SA Approach: Superfund Alternative Approach

SACM: Superfund Accelerated Cleanup Model

SDWA: Safe Drinking Water Act

SEMS: Superfund Enterprise Management System

SPIM: Superfund Program Implementation Manual

SWRAU: Sitewide Ready for Anticipated Use

INTRODUCTION

Contaminated sites that are on the National Priorities List (NPL) follow the processes described in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) when undertaking cleanup, these processes are thorough and often time-consuming. Sites that are identified as “NPL-caliber” (*i.e.*, sites with risks and complexities similar to those at sites on the NPL) but are not on the NPL, can also be slow in moving toward active cleanup for a number of reasons. However, at some NPL-caliber sites, non-NPL approaches may be used to address contamination so that cleanups may happen faster than the standard Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/NCP processes.

Currently, the EPA Regions, in consultation with their state and tribal partners determine whether adding an eligible site on the NPL is the best option to achieve site cleanup. Other options considered in lieu of adding an eligible site to the NPL include: referral to the EPA removal program; deferral to the Resource Conservation and Recovery Act (RCRA) program; formal state deferral; the Superfund Alternative Approach (SAA or SA Approach); cleanup under other state, tribal, local or federal government programs (“Other Cleanup Activity”); and infrequently, deferral to the Nuclear Regulatory Commission (NRC) as appropriate. Some contaminants are addressed using other authorities in collaboration with CERCLA, including RCRA, the Clean Water Act, the Safe Drinking Water Act, and/or state and local authorities.

Workgroup Charge

The workgroup focused on providing clarity on non-NPL approaches that can be used to achieve protective cleanups at NPL-caliber sites. The workgroup examined other federal, state and tribal approaches that may be used in lieu of listing a site on the NPL, and it evaluated the status of a sample of NPL-caliber sites using non-NPL approaches. Clarifying how non-NPL approaches can be used to achieve cleanup may result in addressing unacceptable risks sooner.

BACKGROUND

The Superfund remedial site assessment process begins once sites are brought to the attention of the Superfund remedial site assessment program. Site assessments are performed to determine whether the site is eligible for addition to the NPL. The term “NPL Caliber” has historically been defined and used in the remedial site assessment program to distinguish sites that are likely to pose the greatest relative present or potential threat and need further investigation by a cleanup program via addition to the NPL or an alternative cleanup approach. Generally, these sites are where, based on an initial assessment, a release of hazardous substances, pollutants or contaminants¹ has occurred and may present a threat to human health or environmental receptors. These circumstances would likely result in a preliminary Hazard Ranking System (HRS) score of 28.50 or greater, making the site eligible for addition to the NPL.

¹ CERCLA hazardous substances, pollutants, and contaminates are defined in CERCLA sections 101(14) and 101(33), except where otherwise specifically noted in the HRS.

EPA guidance ([OSWER 9320.2-07A](#) and [9203.1-051, Vol. 1 No. 4](#)) identified the following as examples of the types of sites which are likely to be of NPL-caliber depending upon preliminary HRS scoring and related issues:

- Public drinking water supplies are contaminated or have the potential to become contaminated with a hazardous substance, pollutant or contaminant;
- Private wells are contaminated with a hazardous substance, pollutant or contaminant above a health-based benchmark;
- Soils on school, daycare center or residential properties are contaminated by a hazardous substance, pollutant or contaminant above background levels;
- A hazardous substance, pollutant or contaminant is detected above background in an off-site air release in a populated area;
- A highly toxic substance known to bioaccumulate (*e.g.*, PCBs, mercury, dioxin, PAHs) is discharged into surface waters;
- Sensitive environments (*e.g.*, wetlands or critical habitats for endangered species) are contaminated with a hazardous substance, pollutant or contaminant above background levels.

Some non-NPL approaches may achieve site cleanup at the same or faster pace and at less cost to the federal government and to the potentially responsible party (PRP) than using the NPL approach.² Non-NPL approaches help preserve limited federal Superfund resources for use at the nation's most contaminated sites where no other feasible cleanup option exists. Environmental laws and regulations governing site cleanup vary depending on the non-NPL approach selected.

Adding a site to the NPL or using a different non-NPL approach can be considered if the current non-NPL approach does not achieve expected results and the site continues to pose health and environmental threats commensurate with an NPL-caliber site.

² Non-NPL cleanups may or may not include a CERCLA equivalent risk assessment or achieve the same cleanup standards as those required by the NCP, which as the implementing regulation for CERCLA, provides the blueprint for CERCLA cleanups.

Figure 1 presents a simplified process flow diagram for making NPL-caliber decisions and selecting a remedial cleanup approach.

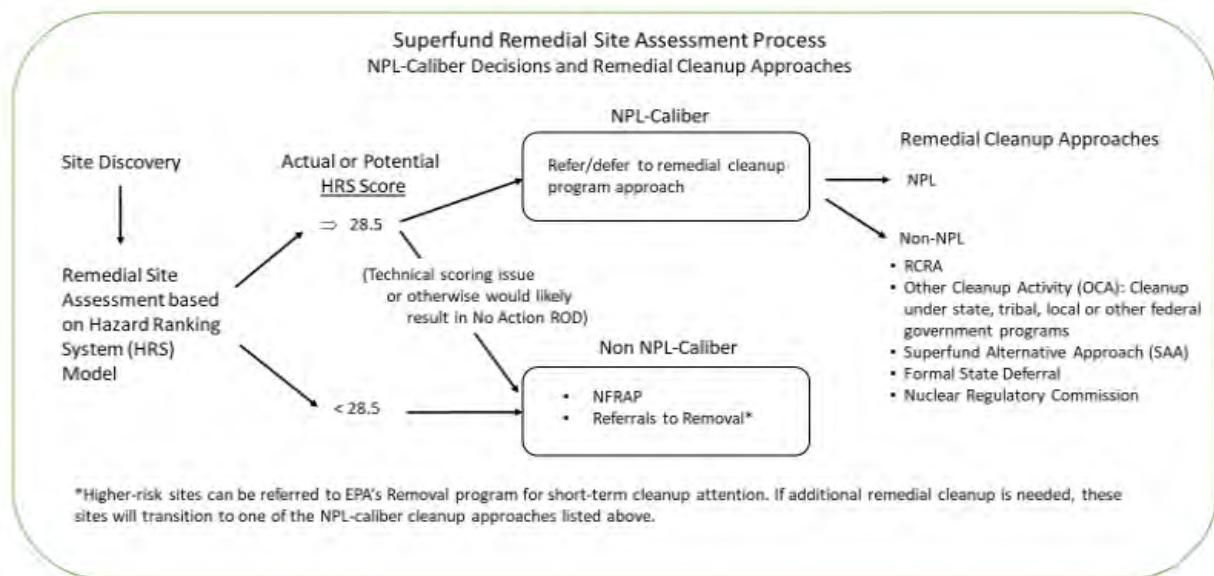


Figure 1

IMMINENT and SUBSTANTIAL ENDANGERMENT

Several statutes that the EPA administers contain “imminent and substantial endangerment” (ISE) provisions similar to CERCLA. The workgroup evaluated the environmental statutes that EPA implements that have similar ISE provisions that could be used to address sites posing a threat to human health and the environment and the thresholds for their use. Additionally, the workgroup evaluated if the ISE determinations currently in use are adequate to support use of alternate authorities.

The workgroup also reviewed existing guidance on ISE authorities. These documents provide a useful overview of the ISE authorities and their thresholds for use:

1. OECA’s Cookbook on Imminent and Substantial Endangerment (“OECA ISE Cookbook”) available at <http://intranet.epa.gov/oeca/oce/wced/ise/isectx.html>.
2. Use of 106 to Address Endangerments that may Also be Addressed Under Other Statutes (Jan.18/2001) (this document includes a helpful summary chart in the back) available at <https://www.epa.gov/enforcement/guidance-using-cercla-section-106-address-cross-media-ise-situations>.

The EPA Regions generally document an ISE determination in the site record. The workgroup reviewed existing regional ISE determinations to assess their content and usefulness across several statutory authorities. The review concluded that revisions to current ISE determination language are not necessary to support use of alternative authorities.

The workgroup also reviewed existing regional delegations of authority for Superfund program staff exercising non-CERCLA ISE authorities and determined that additional guidance is not needed. Regions may refer to their current delegations to determine whether they have the authority to address NPL-caliber sites using non-CERCLA authorities.

ANALYSIS OF APPROACHES

The cleanup approach selected for NPL-caliber sites is based on policy (*e.g.*, environmental justice, community engagement, state concurrence letter), regulatory (*e.g.*, ongoing work under another program) and legislative factors that impact the site, along with consideration of the involvement and interest of other stakeholders. Cleanup approaches include adding the site to the NPL and other non-NPL approaches. Non-NPL approaches may include using Superfund removal authorities, the SA Approach, RCRA Corrective Action, cleanup under the NRC, and certain state, tribal, municipal or other federal government cleanup programs. Our evaluation excluded referral to the EPA's removal program which is generally for emergency and shorter-term cleanups.

For this recommendation, the workgroup focused on non-NPL, longer-term cleanup approaches. These approaches include:

- Deferral to RCRA Subtitle C corrective action;
- Deferral to Nuclear Regulatory Commission;
- Other Cleanup Activity;
- Formal State Deferral; and
- Superfund Alternative Approach.

The workgroup's evaluation also included reviewing program measurement criteria and existing guidance and data to compare and contrast these longer-term non-NPL cleanup approaches. Source documents included EPA's Superfund Program Implementation Manual ([SPIM](#))³, related EPA regulations, policy and guidance documents, and General Accountability Office (GAO) reports.

NPL and Non-NPL approaches are summarized in the SPIM. Specifically, *Chapter 6 Remedial Site Assessment, Section VI.A.9 Cleanup Alternatives* briefly describes the various cleanup approaches sites can be subject to when completed assessment work determines a site is eligible for the NPL and needs remedial cleanup. Links to more detailed information regarding cleanup approaches are included in Chapter 6 of the SPIM.

The following is a brief synopsis of each approach that includes a checklist of relevant attributes for each approach and where to find additional information.

Approach: Deferral to RCRA

EPA policy⁴ is to defer placing sites on the NPL that can be comparably addressed under RCRA Subtitle C corrective action authorities; however, there are certain exceptions to this policy (*e.g.*, uncooperative

³ Available on the Agency's website at <https://www.epa.gov/superfund/superfund-program-implementation-manual>.

⁴ RCRA deferral policy 54 Fed. Reg. 41004 (October 4, 1989)

or bankrupt responsible parties). RCRA sites not subject to Subtitle C can continue to be considered for NPL listing or another non-NPL approach.

- ✓ Number of Sites Deferred to RCRA: Approximately 2,200 since inception; 7 over past 5 years
- ✓ Can Include Proposed NPL Sites (Y/N): Yes
- ✓ Applicable Law Governing Cleanup: RCRA
- ✓ NCP-Equivalent Cleanup Required (Y/N): Yes (deemed similar)
- ✓ Initiation Requirements: Written acceptance by RCRA program
- ✓ Level of Superfund Oversight: None
- ✓ Frequency of Progress Reporting by Superfund: None
- ✓ Closeout Documents/Procedures Required by Superfund: No
- ✓ Superfund Progress Profile Required (Y/N): No
- ✓ Included in National SF Cleanup Metrics (HEUC, GMUC, SWRAU, etc.) (Y/N): No
- ✓ Additional Information: [Interim Guidance in Response to the OIG Audit “Superfund Sites Deferred to RCRA”, OSWER 9200.1-31P, December 1999](#) and [Memo Regarding Coordination between RCRA Corrective Action Closure and CERCLA Site Activities, September 1996.](#)

Approach: Other Cleanup Activity (OCA)

NPL-caliber sites may be addressed under a state, tribal, municipal, or other federal government environmental cleanup program without EPA Superfund enforcement or oversight. The EPA collectively refers to these sites as Other Cleanup Activity sites.

The EPA expects remedial-type work at these sites will be completed under the laws, regulations and policies applicable to the state, tribe or other federal agency managing cleanup work. Remedial-type work can include comprehensive site investigations in support of making cleanup determinations, interim cleanup actions, removals or final cleanup decisions, including decisions that cleanup is not required.

For this definition, ‘without EPA enforcement or oversight’ means that there is no continuous and substantive involvement by the EPA while remedial-type work is ongoing, such as routinely reviewing relevant documents and providing comments to the non-EPA party.

The SPIM requires the EPA to perform a monitoring role on the status of cleanup work at these sites, including checking in with the lead regulator on cleanup progress at the site, at least once every two years. If substantive federal Superfund involvement becomes necessary later, the EPA will work with the lead regulator to determine an alternative approach to address the site cleanup.

- ✓ Number of Other Cleanup Activity Sites: Approximately 1,800 since inception; 150-200 over past five years
- ✓ Can Include Proposed NPL Sites (Y/N): No
- ✓ Applicable Law Governing Cleanup: State, tribe, local and other federal environmental laws
- ✓ NCP-Equivalent Cleanup Required (Y/N): No
- ✓ Initiation Requirements: Documentation or other information indicating lead regulator is pursuing a non-NPL cleanup

- ✓ Level of Superfund Oversight: Minimal – SPIM requires site progress reviews with lead regulator at least once every two years
- ✓ Frequency of Progress Reporting by Superfund: No periodic reporting to public on site progress
- ✓ Closeout Documents/Procedures Required by Superfund: Close-out report or equivalent document submitted by the lead-regulator to Superfund or other confirmation obtained by Superfund program
- ✓ Superfund Progress Profile Required (Y/N): No
- ✓ Included in National SF Cleanup Metrics (HEUC, GMUC, SWRAU, etc.) (Y/N): No
- ✓ Additional Information: The current [SPIM Chapter 6, Remedial Site Assessment](#) describes additional requirements and attributes of this approach, including using SEMS to track the date the EPA last reviewed site progress.

Approach: Formal State Deferral

The EPA's *Formal State Deferral* policy is an administrative mechanism enabling states and tribes, under their own laws, to conduct a response action at sites that the EPA would otherwise not soon address. The *Formal State Deferral* policy stresses a CERCLA-equivalent cleanup process.

- ✓ Number of Sites Deferred to State: Approximately 42 since inception; 5 over past five years
- ✓ Can Include Proposed NPL Sites (Y/N): Yes
- ✓ Applicable Law Governing Cleanup: State/tribal authorities
- ✓ NCP-Equivalent Cleanup Required (Y/N): Yes
- ✓ Initiation Requirements: State deferral agreement
- ✓ Level of Superfund Oversight: Moderate – Deferral guidance allows flexibility on a site-specific basis but does require EPA to check in with the state on site progress at least annually.
- ✓ Frequency of Progress Reporting by Superfund: No periodic reporting to public on site progress
- ✓ Closeout Documents/Procedures Required by Superfund: Close-out report or equivalent document submitted by the lead-regulator to Superfund or other confirmation obtained by Superfund program
- ✓ Superfund Progress Profile Required (Y/N): No
- ✓ Included in National SF Cleanup Metrics (HEUC, GMUC, SWRAU, etc.) (Y/N): No, generally
- ✓ Additional Information: [Guidance on Deferral of NPL Listing Determinations While States Oversee Response Actions, OSWER 9375.6-11, May 1995; Modifications to the State Deferral Program in Response to Office of the Inspector General Report No. E1SFF8-11-0020-8100234 State Deferrals: Some Progress, but Concerns for Long-Term Protectiveness Remain, April 2002](#)

Superfund Alternative Approach

This EPA policy enables an NCP-equivalent cleanup based on an enforceable agreement, using CERCLA authority, between a willing and capable Potential Responsible Party (PRP) and the EPA. Where feasible and appropriate, the SAA is generally the Agency's preferred enforcement approach for CERCLA non-NPL sites that are NPL-caliber.

- ✓ Number of Sites with SAA agreements: 70 since inception; 5 over past five years
- ✓ Can Include Proposed NPL Sites (Y/N): Yes

- ✓ Applicable Law Governing Cleanup: CERCLA
- ✓ NCP-Equivalent Cleanup Required (Y/N): Yes
- ✓ Initiation Requirements: Draft HRS package exists; Willing and capable PRPs willing to sign agreement with EPA to perform the investigation or cleanup; remedial action anticipated
- ✓ Level of Superfund Oversight: Same as if the site is on the NPL
- ✓ Frequency of Progress Reporting by Superfund: Same as if the site is on the NPL
- ✓ Closeout Documents/Procedures Required by Superfund: Same as if the site is on the NPL
- ✓ Superfund Progress Profile Required (Y/N): Yes
- ✓ Included in National SF Cleanup Metrics (HEUC, GMUC, SWRAU, etc.) (Y/N): Yes
- ✓ Additional Information: [Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach \(SAA\), OSWER Directive 9200.2-125, September 28, 2012](#); The Superfund Alternative Approach webpage contains several documents and is available at <https://www.epa.gov/enforcement/superfund-alternative-approach>.

Approach: Deferral to Nuclear Regulatory Commission

Since September 8, 1983, the EPA has generally deferred addition to the NPL those sites that are subject to NRC's licensing authority, in recognition that NRC's actions are believed to be consistent with the CERCLA requirement to protect human health and the environment. However, as the EPA indicated in the **Federal Register** notice announcing the policy of CERCLA deferral to NRC, if EPA "determines that sites which it has not listed as a matter of policy are not being properly responded to, the Agency will consider listing those sites on the NPL" (see 48 Fed. Reg. 40658). In a memorandum of understanding (MOU) signed in 2002 by the EPA and the NRC, the EPA reaffirmed its previous 1983 NRC deferral policy.

The EPA expects that EPA's CERCLA involvement in the decommissioning of NRC licensed sites will continue to occur infrequently because the EPA expects that the vast majority of facilities decommissioned under NRC authority will be decommissioned in a manner that is fully protective of human health and the environment. In the 2002 MOU, EPA agreed to defer to NRC decision-making without the need for EPA consultation except in certain limited circumstances as specified in paragraphs V.C.2 and V.C.3 of the MOU.

- ✓ Number of Sites Deferred to NRC: 7 since inception; 0 over past 5 years
- ✓ Can Include Proposed NPL Sites (Y/N): Yes
- ✓ Applicable Law Governing Cleanup: Atomic Energy Act (AEA)
- ✓ NCP-Equivalent Cleanup Required (Y/N): Yes
- ✓ Initiation Requirements: Determination site is subject to NRC's licensing authority
- ✓ Level of Superfund Oversight: None
- ✓ Frequency of Progress Reporting by Superfund: None
- ✓ Closeout Documents/Procedures Required by Superfund: No
- ✓ Superfund Progress Profile Required (Y/N): No
- ✓ Included in National SF Cleanup Metrics (HEUC, GMUC, SWRAU, etc.) (Y/N): No
- ✓ Additional Information: [Amendment to the NCP/NPL \(section: Releases of Radioactive Materials\), FR 48 40661, September 8, 1983; Memorandum Of Understanding \(MOU\) between the U.S. EPA and the U.S. Nuclear Regulatory Commission regarding Consultation and Finality](#)

[on Decommissioning and Decontamination of Contaminated Sites, OSWER No. 9295.8-06a, October 9, 2002; Distribution of Memorandum of Understanding between EPA and the Nuclear Regulatory Commission, OSWER NO. 9295.8-06a, October 9, 2002.](#)

Table 1 presents a comparative summary of current approaches for addressing non-NPL cleanups at NPL-caliber sites. The table presents key differences among these approaches to assist decision-makers considering non-NPL approaches at NPL-caliber sites. Generally, the differences among the approaches are primarily due to the scope and level of EPA involvement, equivalency with CERCLA cleanup requirements, and whether the cleanup lead is a federal or state/tribal government agency or a private party.

Table 1: Summary of Current Non-NPL Approaches for Addressing NPL-Caliber Sites

	RCRA Corrective Action	Other Cleanup Activity	Formal State Deferral	Superfund Alternative Approach	Nuclear Regulatory Commission
# Sites Deferred/Referred to Approach	2,200 (7 over past 5 years)	1,800 (150-200 over past 5 years)	42 (5 over past 5 years)	70 (5 in last 5 years)	7 (none over past 5 years)
Include sites proposed to NPL	Yes	No	Yes	Yes	Yes
Applicable law(s)	RCRA	Generally, state, tribal, local or other federal environmental laws	State or tribal environmental laws	CERCLA	AEA
NCP-equivalent cleanup required	Yes	No	Yes	Yes	Yes
Initiation Requirements	Written acceptance by RCRA	Documentation that lead regulator is pursuing a non-NPL cleanup	Agreement between EPA and State or tribe	Score \geq 28.5; remedial action anticipated; capable PRP willing to sign AOC or CD with EPA	Determination site is subject to NRC's licensing authority
Level of Superfund Oversight	None	Requires bi-annual EPA check-in	Some flexibility; requires annual EPA check-in	Same as for NPL	None
Frequency of Progress Reporting by Superfund	None	No detailed site progress reporting by HQ	No detailed site progress reporting by HQ	Same as for NPL	None
Closeout Documents or Procedures Required by Superfund	None	Close-out report or equivalent document submitted by the lead-regulator to Superfund or	Close-out report or equivalent submitted by state/tribe to Superfund, state/tribe notifies	Same as for NPL	None

	RCRA Corrective Action	Other Cleanup Activity	Formal State Deferral	Superfund Alternative Approach	Nuclear Regulatory Commission
		other confirmation obtained by Superfund program	affected community		
Superfund Progress Profile required	No	No	No	Yes	No
Included in National Superfund Cleanup Metrics	No	No	No	Yes	No

KEY ELEMENTS, LESSONS LEARNED AND BEST PRACTICES

Key Elements

To identify requirements needed to implement federal and non-federal approaches that are appropriate for investigating and cleaning-up NPL-caliber sites, the workgroup focused on approaches separate from those that exist at the state or tribal level that originate by federal statute (*e.g.*, RCRA) and are managed by a state or tribe through a delegated program. However, general practices and specific considerations identified by the workgroup may also be applicable to those situations, particularly where a state or tribe is undertaking the work pursuant to those authorities or their state equivalents.

EPA regional offices and the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) were asked to provide examples of NPL-caliber sites addressed through an alternative authority. The workgroup evaluated the examples provided along with the SPIM and other relevant guidance documents for insights on success and limitations. These examples were further used to identify the key elements in Table 2 for sites needing an NCP-equivalent cleanup, and recommendations and best management practices for identifying and coordinating appropriate cleanup of NPL-caliber sites by states/tribes.

State and tribal authorities used to conduct cleanup⁵ at NPL-caliber sites varies and can include federally delegated state programs, state CERCLA equivalent programs, solid waste programs, or other remediation programs.

The following existing documents provide an overview of, information about, or data regarding state cleanup of NPL-caliber sites include:

- 2019 Superfund Program Implementation Manual (this document includes definitions and EPA program implementation requirements particularly definitions and tracking for Other Cleanup

⁵ “Cleanup” for the purposes of this document includes the full range of remedial decisions or actions that may be taken at a site, *e.g.*, no further action, institutional controls, and/or other remedial actions.

Activity) available at <https://www.epa.gov/superfund/superfund-program-implementation-manual>.

- 1995 Guidance on Deferral of NPL Listing Determinations While States Oversee Response Actions available at <https://semspub.epa.gov/work/HQ/123675.pdf> (this document outlines the general process and requirements where a Deferral of NPL site is contemplated and would be utilized for a State to conduct cleanup activity).
- [2012 Superfund Site Assessment Program: Benefits Beyond NPL Listing](#) (This is an ASTSWMO publication that provides data and information where additional cleanup activity has occurred at sites where a CERCLA remedial site assessment has occurred).

Table 2: Key Elements when Considering the Use of State/Tribal Authority at an NPL-Caliber Site Needing to achieve an NCP-Equivalent Cleanup

Element	Considerations
Funding	<ul style="list-style-type: none"> • If potentially responsible party (PRP) is conducting cleanup, does state/tribe have the means to ensure cleanup funding is consistently and readily provided by PRP to conduct cleanup? • If no viable PRP, does the state/tribe have sufficient cleanup funds to complete the cleanup? • Is there a third-party (including a potential developer) that has sufficient funding to conduct cleanup?
Regulatory Oversight	<ul style="list-style-type: none"> • Is the state/tribal authority a remediation authority that includes elements of site cleanup? • Does the state/tribe have technical resources through staff or contractors to review cleanup work? • What enforcement authority does the state/tribe have to compel cleanup and/or identify and pursue PRPs for cleanup activities if necessary?
Technical (Remedial Feasibility/ Implementation/ End Points)	<ul style="list-style-type: none"> • Does the state/tribal authority or program require or include evaluation of all potential exposure pathways? • Does the state/tribal authority or program require or include cleanup to equivalent or appropriately protective endpoints for all identified pathways? • Does the state/tribal authority or program require or include documentation of cleanup conducted including evaluation or requirements addressing all pathways? • Does the state/tribal authority or program require or include a mechanism to review cleanup after completion to ensure remedy remains protective?
Public Participation	<ul style="list-style-type: none"> • Does the state/tribal authority or program require or include public review and comment at appropriate stages of the cleanup, particularly the cleanup activity selected or undertaken? • Does the state/tribal authority or program require or include a means for the public to access or review cleanup related documents?
EPA/State Coordination	<ul style="list-style-type: none"> • Have EPA and the state/tribe identified (where required, requested, or appropriate) a process for EPA review and comment on technical documents and decisions?

Element	Considerations
	<ul style="list-style-type: none"> • Have EPA and the state/tribe identified a process for regular communication and updates regarding cleanup activity including information, as necessary, for EPA tracking of the site?

Seven EPA Regions and ASTSWMO responded to the request for examples of using non-NPL approaches providing fourteen site-specific examples. Some EPA Regions also provided information regarding the process used to determine if use of an alternative authority should be pursued. The responses are summarized below.

Region/State NPL-Caliber Site Alternate Authority Determination Processes

Feedback from EPA Regions regarding the alternative authority determination process offered the following information:

- One region indicated that it considers state interest in addressing hazardous substance releases at a site that poses a threat to human health and the environment and has an HRS score high enough to support proposing the site for NPL addition, if the state interest is expressed early in the pre-remedial process. If the EPA Region and state agree to use an alternate state approach, the EPA Region does not engage further as long as the state continues to make progress addressing the releases and report annually on the progress.
- One region reported that if a state expresses interest in addressing sites that either have been proposed to the NPL or have completed an HRS listing package, the region expects the state to provide a written commitment specifying how they will achieve an NPL-caliber cleanup. This agreement has taken the form of a MOU between the EPA Region and the state.
- One region holds quarterly calls or meetings with each state program to discuss a broad range of issues including sites that may be appropriate for NPL listing. In addition, this Region holds semi-annual state program directors' meetings bringing together the program directors from all the Region's states. The meetings provide another avenue to discuss sites in the site assessment queue that may be eligible for addition to the NPL. The EPA Region also maintains open lines of communication with all its states, so that a state director may call the regional director to discuss a site and the best path forward for addressing cleanup.
- One region noted that sometimes disagreements regarding a path forward for a site are internal to a state organization, with some parts supporting listing and other parts not supporting it.

Regional Concerns Raised About Using Alternative Approaches In lieu of Adding a Site to the NPL

- Significant delays can occur if a PRP defaults on its remedial work commitments under a non-SAA, non-NPL approach, including time delays if the site needs to be placed on the NPL to achieve cleanup. Financial assurances could mitigate these delays to some degree.
- There is a perception that alternative approaches may avoid a stigma some believe is associated with the NPL. Without conceding that NPL listing creates such a stigma, communities may benefit at those sites where a PRP is willing to do the cleanup using a non-NPL route.

- Using a hybrid or combination of non-NPL approaches at different areas within a single site creates complexity and introduces the potential for significant delays in site cleanup should one of the approaches fail.
- Untested approaches can lead to extraordinary delays. One EPA Region described a site where circumstances caused the EPA to enter into an agreement with terms that were untested. After fifteen years of working under this agreement, major milestones have not been accomplished.
- Multiple property owners, federal agencies, states and/or tribes adds complexities to any site and introduces additional risk to achieving a non-NPL cleanup in a timely fashion.
- One EPA Region noted that the decision to use an alternative authority does not have the formal public comment process that is required to place the site on the NPL.
- Risk assessments performed under CERCLA removal authorities may prove insufficient if the site ultimately needs to be addressed under remedial authorities. One EPA Region mitigated this risk during a Non-Time Critical Removal Action at an NPL-caliber site by requiring the PRP to compete the risk assessment as if the site were being addressed through remedial authorities.
- Remedial work under non-NPL approaches other than the SAA do not receive resources in the pipeline allocation model used to distribute resources among regions for Superfund work.
- Incorrectly interpreting the national program direction, one region has de-emphasized using the SAA in recent years.
- Potential delays and failure of the non-NPL approach can occur when the site lacks a motivated and cooperative PRP or when relevant federal, state or tribal stakeholders are not in full agreement with all aspects of the non-NPL approach.
- Lack of state support for using NPL listing as a backup approach to a non-NPL approach can serve as a disincentive for PRPs to meet cleanup expectations.
- Sites with relatively high cleanup costs can decrease the motivation of PRPs to perform cleanup under any approach.

Regional/State Identified Lessons Learned

Feedback from the seven EPA Regions and ASTSWMO yielded the following lessons learned:

- Critical to the success of any non-NPL approach is the involvement of a very cooperative PRP.
- Redevelopment potential and a relatively limited scope of remediation needed (*e.g.*, soil remediation only), greatly increase the likelihood that a cleanup can be achieved without addition to the NPL.
- In some situations, removal agreements in conjunction with significant investment by an interested developer can be successful and may save Superfund resources. The success of this scenario, however, may be dependent on a thoroughly characterized site.
- Strategic use of removal authority at non-NPL sites can expedite cleanup in some circumstances.
- At one large site, an EPA Region described leveraging state resources for cleanup, with the PRP paying the state's costs; using removal authority; and using RCRA authority. The Region believes the process was likely slower than if the site had been added to the NPL and the EPA had been the lead throughout the remedy selection process.
- Best management practices should include an evaluation of alternative mechanisms to reach and implement a remedy and to carefully balance the incentives and disincentives of each approach

against the EPA's priorities (*e.g.*, timeliness of cleanup, successfully expediting the cleanup, potential compromises to the remedy, etc.).

- Pooling resources across programs and states can maximize benefits to affected communities.
- The success of using non-NPL approaches is dependent upon a commitment by the responsible parties to fully address the contamination at the site in cooperation with the state/tribe, the EPA, and the affected communities. It is critical that clear expectations on cleanup are established early and that the administrative path is clearly defined to minimize the need for costly and time-consuming revisions.
- Using non-NPL approaches can get cleanup work going in situations that pose immediate threats and where listing sites on the NPL may be time-consuming.
- Some states have specific funds (*e.g.*, dry cleaner funds or an environmental stewardship fund) that allows the states to address NPL-caliber sites, so they don't need to be listed on NPL. Where such funds exist, one Region expressed a preference for relying on these state mechanisms rather than adding the site to the NPL.

Table 3 presents various factors associated with the site examples/case studies evaluated by the workgroup.

Table 3: Overview of Site Factors Identified in Example Sites

Example NPL-Alternative Site	A	B	C	D	E	F	G	H	I	J	K	L	M
NPL proposed/not final	X	X	X	X	X								
Removal Action		X	X	X	X						X		
EE/CA NTCRA	X	X			X		X			X			
Administrative Order on Consent		X		X	X	X	X			X	X		
Non-CERCLA Consent Decree		X										X	
CERCLA Consent Decree						X							X
CERCLA Unilateral Order												X	
State Order								X	X				
Redevelopment Interest / BFPP	X	X				X	X						
Mixed Funding	X												
State Authority		X				X		X	X	X			X
RCRA		X						X					
Superfund Alternative Approach						X	X						
Complex Site		X			X	X	X		X	X		X	
Cooperative PRPs					X	X		X	X	X	X		X
Accelerated Cleanup					X	X		X			X		

The workgroup noted that Site circumstances in the examples provided varied widely. This variability is common at Superfund sites, making it difficult to identify universal one-size fits all approach. The examples provided showed that: 1) in certain situations protective cleanups can be achieved using an alternate approach; and 2) that untested approaches can lead to delays. Thus, when determining if an alternative approach to adding a site to the NPL is likely to result in a timely and protective cleanup,

many factors may need to be assessed, including, *e.g.*, site complexity, cooperation of the PRPs, remedy costs, and the ability of the alternative approach to efficiently and effectively address the situation.

Best Practices

The following best practices are offered when using appropriate state or tribal authorities to clean up NPL-caliber sites:

- Implement the elements identified in the 2019 SPIM to ensure that consistent tracking of Other Cleanup Activity undertaken by states/tribes is occurring. This includes the EPA Regions and states identifying regular discussion points to discuss and assess the status of sites being addressed by a state or tribal cleanup authority.
- Identify a regular mechanism to discuss and identify sites that may be addressed through non-NPL approaches early in the cleanup process.
- Document the mechanism for identifying sites to be addressed through state or tribal authorities in a memorandum of agreement (MOA) with a state/tribe, *e.g.*, a Superfund memorandum of agreement (SMOA).
- Use work share planning meetings between the EPA Regions and states/tribes to discuss site disposition.
- When an NCP-equivalent cleanup is needed, consider if a state/tribe may be able to use their response and enforcement authorities to ensure that remediation occurs in a manner that is consistent with CERCLA and the NCP.
- Where states/tribes are interested in assuming the oversight and enforcement of remaining response actions at an NPL-caliber site at which the EPA has already taken enforcement action, consult the model Memorandum of Understanding for use between the EPA and the state/tribe that was developed under Superfund Task Force Recommendation 19 to help determine if transferring the site to a state or tribal program is appropriate.
- Refer to and consider the Key Elements in Table 2 of this document in discussions and implementation of a state or tribal authority at sites needing an NCP-equivalent cleanup. The matrix may help ensure a mutual understanding regarding the appropriate uses of a specific state or tribal authority at these sites.
- Routine evaluation of non-NPL approaches should carefully balance the benefits and drawbacks of each approach with respect to the EPA's priorities (*e.g.*, expediting cleanup, site reuse, engaging partners and stakeholders, etc.).
- The EPA Regions, states and tribes should consider if adequate internal processes are in place to determine the best path forward for a site to achieve a protective cleanup.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

- The success of using non-NPL approaches is strongly dependent upon a reliable and sustainable commitment by the responsible parties to fully address the contamination at the site in cooperation with the state/tribe, the EPA, and the affected communities.
- There are established options for addressing NPL-caliber sites in lieu of adding the site to the NPL. The EPA should continue to assess all available options when considering potential

responses at NPL-caliber sites and continue to consult with other federal, state and tribal remedial programs on what cleanup approach to use.

- Implement the best practices outlined above.
- Where NPL-caliber sites are addressed using the Other Cleanup Activity and formal state deferral non-NPL approaches, the EPA generally performs a monitoring role by checking in with the authority implementing the response on the status of the cleanup work. The EPA should consider developing a list of standard parameters to assess the cleanup status and help determine if further federal Superfund involvement should be re-considered.
- Many factors must be assessed in determining if an alternative to listing a site on the NPL is likely to result in a timely and protective remedy, including site complexity, cooperation and posture of the PRPs, and remedy cost.
- Establishing expectations on applicable cleanup requirements and clearly defining the administrative path will minimize the need for costly revisions to the cleanup plan.

REFERENCES/ADDITIONAL INFORMATION

Guidance on Deferral of NPL Listing Determinations While States Oversee Response Actions, OSWER Directive No. 9375.6-11, Office of Solid Waste and Emergency Response, EPA/540/F-95/0002, (May 3, 1995), available at <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000L26C.TXT>.

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Assessing Sites Under SACM –Interim Guidance, OSWER Directive No. 9203.1-051, Vol. 1 No. 4, Office of Solid Waste and Emergency Response (Dec. 12, 1992)

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Previous Evaluations of Alternate Approaches:

[GAO Report “Superfund: EPA Should Take Steps to Improve Its Management of Alternatives to Placing Sites on the National Priorities List, U.S. General Accounting Office \(GAO-13-252\) \(Apr. 2013\)](#) available at <https://www.gao.gov/assets/660/653646.pdf>.

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