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Determining Eligibility for FUSRAP Sites

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Document History

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Approved:

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Rebecca Roberts
Task Assignment Manager, FUSRAP
Navarro Research and Engineering, Inc.

Date

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Abbreviations

AEA	Atomic Energy Act of 1954
AEC	U.S. Atomic Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
FUSRAP	Formerly Utilized Sites Remedial Action Program
GC	U.S. Department of Energy Office of the General Counsel
LM	Office of Legacy Management
MED	Manhattan Engineer District
NRC	U.S. Nuclear Regulatory Commission
USACE	U.S. Army Corps of Engineers

1.0 Background

1.1 Overview of FUSRAP

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was created to investigate sites that were involved in early atomic weapon and energy activities and were potentially contaminated with radioactive materials above established guidelines. In 1974, the U.S. Atomic Energy Commission (AEC) created a survey program to begin addressing these sites; the program was later transferred to AEC's successor agencies, which include the U.S. Department of Energy (DOE). DOE began cleanup projects in 1979 (DOE 1980a).

Legislative authority to implement FUSRAP is provided by the Atomic Energy Act of 1954, as amended (AEA). Additional authorization to clean up specific sites was provided by later acts of Congress. In 1997, Congress transferred responsibility for part of FUSRAP to the U.S. Army Corps of Engineers (USACE). Responsibility for FUSRAP is now divided between DOE's Office of Legacy Management (LM) and USACE. Figure 1 shows an overview of FUSRAP's evaluation and remediation process, including the responsibilities of the two agencies; DOE's responsibilities are highlighted in blue, and USACE's responsibilities are highlighted in green. The *Memorandum of Understanding Between the U.S. Department Of Energy and the U.S. Army Corps of Engineers Regarding Program Administration and Execution of the Formerly Utilized Sites Remedial Action Program (FUSRAP),* also called the March 1999 MOU, outlines details of FUSRAP administration and execution (DOE and USACE 1999).

1.2 Purpose of Eligibility Determination

Original guidance for determining site eligibility was developed when responsibility for the entire program was with DOE. Although the criteria from the original protocols remain valid (DOE 1986a and DOE 1986b), responsibility for evaluating sites against those criteria and for designating sites is now divided between DOE and USACE. This document revises the eligibility determination process, which had not previously been addressed separately from the designation/elimination protocol.

The eligibility determination process defined in this document is represented by the red boxes in Figure 1. The process applies to potential new sites or to existing sites with new information. It does not revise DOE's original screening process, nor is it intended to reevaluate ineligible sites for which no new information is available. Such inactive sites were screened for programmatic risk according to a separate methodology developed in 2014 (DOE 2014a).

1.3 Preliminary Research

Before DOE selects a site for an eligibility determination, it must be established that:

A. The site is not already a known site in DOE's document system.

B. The site could have contributed to the development of atomic weapons and energy.

C. The site had potential to have worked with radioactive materials.

DOE maintains records and document collections for its known sites, including all known historical names for the sites. Updates to DOE document collections are made on a regular basis. When a site not previously considered for FUSRAP is discovered by DOE through public inquiries or other research, document collections will be reviewed to determine if it is actually an alternate name for a known site. If necessary, a search of publicly available resources will also be made. This search will include location information to confirm that alternate names actually apply to the same site. If the new name is determined to be an alternate name, no further action will be necessary unless new site information is discovered that would warrant a new eligibility determination.

The results of the preliminary research will also determine whether a newly discovered site could have been used to develop atomic weapons and energy and whether the site had the potential to have worked with radioactive materials.

If a site is selected for an eligibility determination, DOE will notify USACE in writing that the site is under consideration for FUSRAP. If the preliminary research yields new, relevant documents, copies of the documents will be added to the LM reference document collections as they are discovered. Similarly, if an alternate name for a new site is discovered, it will be added to the DOE document collections.

2.0 Eligibility Criteria

The eligibility determination process described in this document is based on the March 1999 MOU (DOE and USACE 1999), subsequent correspondence between DOE and USACE (USACE 2001; DOE 2002), the 1986 protocol used by the DOE Office of Environmental Management (DOE 1986a, DOE 1986b), and USACE's FUSRAP regulation (USACE 2014).

All four of the following criteria[1] must be met for a site to be eligible for referral to USACE under FUSRAP:

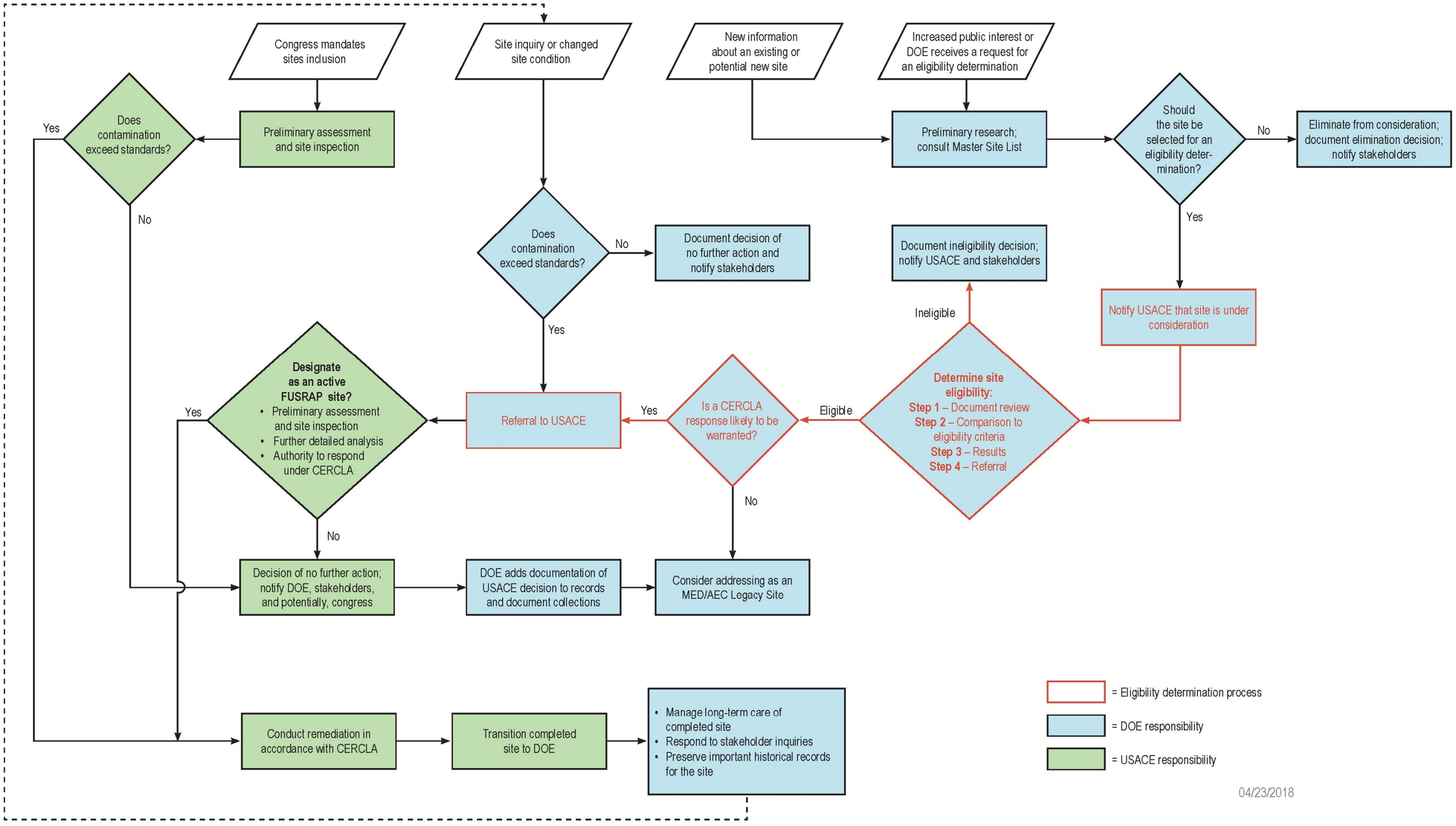
Criterion 1 Work was conducted in support of Manhattan Engineer District (MED) and/or AEC activities

Criterion 2 There is a reasonable, credible expectation that the activities resulted in residual radioactive contamination (primarily uranium, radium, and thorium and their daughter elements) that exceed current cleanup criteria

Criterion 3 The site is not subject to remedial action under any other remedial action program nor is residual radioactive contamination addressed under an AEC, U.S. Nuclear Regulatory Commission (NRC), or state radioactive materials license

Criterion 4 The authority to request appropriations to perform remedial action activities at the site is prescribed within existing legislation and guidelines

[1] All of the criteria are implicit in DOE's general authority from the AEA. Although not verbatim, these criteria are also found in the FUSRAP summary protocol (DOE 1986a). Criteria 1 and 4 were also first explicitly described in an early description of FUSRAP (DOE 1980b), and Criterion 2 was described in the 1972 AEC report to Congress (AEC 1973).



Abbreviations: AEC = U.S. Atomic Energy Commission; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; DOE = U.S. Department of Energy; FUSRAP = Formerly Utilized Sites Remedial Action Program; MED = Manhattan Engineer District; USACE = U.S. Army Corps of Engineers

Figure 1. Overview of the FUSRAP Process

If the site does not meet all criteria, it is deemed ineligible. Ineligible sites might later be added to FUSRAP through congressional action, but this process is separate from the eligibility determination. If new information becomes available for an ineligible site, it may be reconsidered for an eligibility determination, depending upon the nature of the information.

If DOE determines, using the process described in Section 3.0, that a site meets all four criteria, it is eligible for FUSRAP.

3.0 Eligibility Determination Process

DOE can select a site for an eligibility determination if new information about an existing site or a potential new site becomes available, if public interest in an ineligible site warrants further consideration (in case new information may become available during site research), or if DOE receives an evidence-supported request for an eligibility determination. Figure 2 summarizes DOE's eligibility determination process.

3.1 Step 1—Site Research

The eligibility determination process relies on a site-specific review of DOE documents and other resources. Records management professionals will be used as necessary to complete thorough site-specific research. The *FUSRAP Records Guidance* (DOE 2014b), a comprehensive guide to historic FUSRAP records searches, techniques, and resources, will also be consulted as needed.

In general, the following steps will be used to identify pertinent resources:

A. Review existing documents available in LM document collections.

B. Research publicly available resources (e.g., websites; Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] databases; NRC license library).

C. Request copies of documents from other agencies (e.g., NRC or state governments).

D. Contact or visit libraries or document archives that might not be available online or through other agencies.

At any step of the review process, if enough information becomes available to determine that a site is not eligible for FUSRAP, additional research will not be necessary. For example, if a search of the LM document collections shows that levels of radiological contamination were below guidelines after MED or AEC activities were complete, and radiological survey results are provided, the site will not meet Criterion 2 and can be eliminated. Similarly, if publicly available documents show that potential contamination at a site is covered under a license, the site will not meet Criterion 3 and can be eliminated from consideration without additional research. Any decision to eliminate a site from further consideration will be documented, and stakeholders will be informed of the decision (Section 3.3.1).

Historically, systematic records, reviews, and interviews of former facility or AEC employees were part of the eligibility determination process (DOE 1986a, DOE 1986b). DOE performed extensive research to screen potential sites. Further information is unlikely to be uncovered from additional searches of this type because the results of the original research are preserved in records and DOE document collections.

Any new documents found during Step 1 will be added to LM's records and reference document collections as appropriate.

3.2 Step 2—Comparison to Eligibility Criteria

Using information compiled during Step 1, the site will be compared to the eligibility criteria described in Section 2.0. All criteria must be met for a site to be referred to USACE. If at any time a criterion is found not to be met, a site can be eliminated from further consideration and documented accordingly (Section 3.3.1).

3.2.1 Criterion 1—MED- and/or AEC-Related Work

Site-specific documents will be reviewed for evidence of MED or AEC involvement at the site.

Criterion 1 will be met if one of the following is true:

A. Documents sufficiently demonstrate that work was done by or for MED or AEC at the site.

B. Documents indicate that MED or AEC work could have been done at the site, but details of that work are not known (this includes sites where there is a proposal for work but there is no evidence demonstrating that work was or was not actually done).

Criterion 1 will not be met if any of the following are true:

A. Documentation sufficiently demonstrates that no work was done for MED or AEC (for example, if documents show that work was done only for a private enterprise).

B. The site appears in MED or AEC contractual documents, but no additional information other than site name has ever been found (such sites cannot be evaluated further).

C. The only documented work occurred at the site after 1975 (when the AEC was abolished).

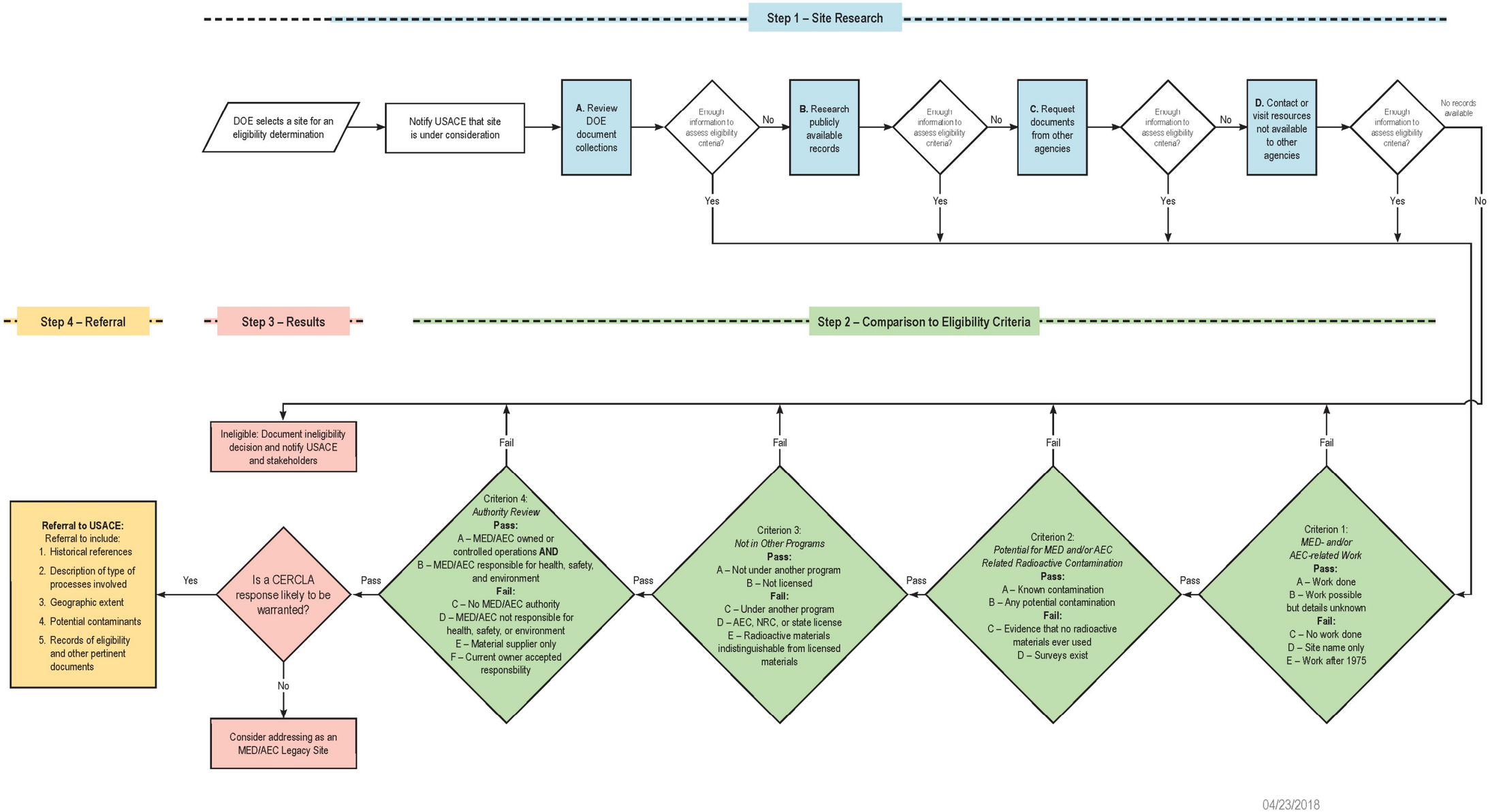


Figure 2. Summary of the Eligibility Determination Process

3.2.2 Criterion 2—Potential for MED- or AEC-Related Radioactive Contamination

Past eligibility determinations established guidelines to determine if the potential for radioactive contamination is significant (DOE 1986a). In rare cases, contamination has later been discovered at sites that were excluded on the basis of insignificant potential. Therefore, the guidelines for elimination based on Criterion 2 have become more stringent.

Criterion 2 will be met if one of the following is true:

A. There is known contamination at the site in excess of current cleanup criteria (e.g., DOE is provided with or has ordered recent radiological surveys of the site).

B. There is potential for radioactive contamination related to MED/AEC activities in excess of current cleanup criteria.

Criterion 2 will not be met if any of the following are true:

A. There is evidence that no radioactive materials were ever used at the site for MED or AEC work (e.g., site documents show that site operators supplied only non-radioactive products to AEC).

B. Results of radiological surveys demonstrate that levels are below current cleanup criteria.

If the site is ultimately referred to USACE, the designation process will confirm and determine the extent of radiological contamination at the site.

3.2.3 Criterion 3—Not in Other Programs

FUSRAP was established to address sites not addressed under other remedial action programs.

Criterion 3 is met if one of the following is true:

A. The site is not under another program such as the Uranium Mill Tailings Radiation Control Act, Superfund projects, Decontamination and Decommissioning projects, U.S. Department of Defense cleanups, or others.

B. The site has potential radiological contamination that was not covered under an AEC, NRC, or state radioactive materials license.

Criterion 3 is not met if any of the following are true:

A. The site is under another federal or state cleanup program (see above).

B. The site has or had an AEC, NRC, or state license that addressed the radioactive materials.

C. Historical MED- or AEC-related activities at the site are the same as activities that later came under a license (in these cases, the resulting contamination would be indistinguishable and would also be covered under that license).

Some completed and active FUSRAP sites are also listed on the National Priorities List, and some have NRC licenses. All of these sites were deemed ineligible for FUSRAP but were added to the program through congressional direction.

3.2.4 Criterion 4—Authority Review

Authority to include a site in FUSRAP is provided by the AEA, which directs the federal government to protect public health and safety during research and production operations. Authority has been interpreted to include decontaminating sites through remedial actions (DOE 1980a). The authority review is the most complex of the four criteria.

Criterion 4 will be met if both of the following are true:

A. MED or AEC owned or controlled all or a portion of site operations.

B. MED or AEC was responsible for maintaining the health, safety, and environment of all or a portion of the site.

Criterion 4 will not be met if any of the following are true:

A. Site activities were only performed by privately owned entities that MED or AEC had no authority over.

B. MED or AEC was not responsible for, or was excluded from, maintaining the health, safety, and environment for site activities involving radioactive materials.

C. All materials produced at the site were produced for commercial reasons and not for the federal government, even if the government later purchased those materials.

D. The current owner of the site, with knowledge of the contamination and the need for cleanup, has accepted responsibility for the site.

The authority determination can be complicated by many factors, including the extent of the AEC's ownership or control of a site, specific contractual obligations, and how those obligations have been interpreted by legal counsel over time. For example, AEC may have had ownership of only a portion of a large, commercially operated site that handled radioactive materials in another capacity.

Historically, the DOE Office of the General Counsel (GC) was consulted to provide guidance as to whether authority exists to request appropriations for remedial action (DOE 1986a). In cases where a comparison of a site against Criterion 4 is unclear, GC can be consulted to resolve the authority determination. GC will review and concur with the authority review of all sites determined to be eligible.

3.3 Step 3—Results

This section describes how the results from Steps 1 and 2 are documented and used to determine if a site is ineligible or eligible and whether or not the site will be referred to USACE.

3.3.1 Ineligible Sites

Sites that do not meet all the eligibility criteria are determined to be ineligible.[2] To document the decision, a memorandum to file will be prepared and added to LM records and FUSRAP document collections. USACE will be notified in writing of the ineligibility decision, and other stakeholders will also be notified as necessary. Sites with possible radiological contamination will be referred to the appropriate regulating agency.

3.3.2 Eligible Sites

A site that meets all the eligibility criteria may be referred to USACE or considered by LM as an MED/AEC Legacy Site. For a site to be referred to USACE, LM must determine whether a CERCLA response is likely to be warranted.

3.3.2.1 Likelihood of a CERCLA Response

Under Engineering Regulation ER-200-1-4, USACE is mandated to clean up sites under CERCLA guidelines (USACE 2014). Therefore, before referring a site to USACE, LM must determine whether a site is likely to warrant a CERCLA response. In order to warrant a CERCLA response, contamination at a site must represent a threat to public health or welfare or the environment. In addition, the amount, quantity, or concentration of contaminants released at a site must warrant a federal response. Therefore, sites with small amounts of contamination or inaccessible contamination will generally not be referred to USACE.

3.3.2.2 Referral to USACE

Sites with contamination significant enough to potentially warrant a CERCLA response will be referred to USACE for further investigation and a designation determination. In accordance with the March 1999 MOU (DOE and USACE 1999), the referral materials will contain the following, as reflected by documentation available to DOE:

A. Historical references supporting use of the site for activities that supported the nation's early atomic weapons and energy programs

B. A description of the nature of MED/AEC involvement at the site and the processes involved

C. The geographic boundaries of MED/AEC-related processes

D. The potential radioactive and chemical contaminants at the site

E. Records of eligibility determination and other files, documents, and records associated with the site

[2] Although ineligible sites do not qualify for FUSRAP, it is possible for DOE to be identified as a Potentially Responsible Party for a site during the CERCLA process. Additionally, if contamination on a site is related to source material production for the federal government, the site might qualify for Title X funding, which is separate from FUSRAP.

Figure 3 is a checklist to be used as a guideline when preparing USACE referrals. Using these guidelines, a referral letter and eligibility report will be prepared for USACE for their consideration. GC will review the referral materials, and concurrence is required before the materials are provided to USACE. When the referral is approved by GC, stakeholders will be notified as necessary, and a copy of the referral letter and report will be retained as records.

3.3.2.3 MED/AEC Legacy Sites

Although USACE is responsible for cleanups under FUSRAP, DOE has the authority under the AEA to conduct radiological surveys and remediate sites with residual contamination from MED or AEC activities. LM may investigate options to address sites that are not eligible for FUSRAP or sites that are eligible but not likely to warrant a CERCLA response. LM will consider addressing such sites as MED/AEC Legacy Sites. These are generally sites with small amounts of contamination and may include sites that have been referred to USACE but not designated as active FUSRAP sites. An example of an MED/AEC Legacy Site is the Burris Park, California, Site, which was not eligible for FUSRAP but contains radioactive materials related to AEC.

4.0 USACE's Designation Process

As shown in Figure 1, there are two ways that sites can come to USACE for designation: a site may be referred by DOE, or Congress can direct the site to be included in FUSRAP. USACE will determine whether a site becomes an active FUSRAP site using the following criteria (USACE 2014). To be remediated under FUSRAP, all of the following must be true:

A. The site was referred by DOE as eligible (or declared eligible by Congress)

B. Site contamination is sufficient to warrant a CERCLA response action (USACE usually determines this through a Preliminary Assessment and Site Inspection)

C. Contamination resulted from MED and/or AEC activities (USACE conducts further detailed analysis)

D. USACE has authority to respond under CERCLA

If a site is not accepted into FUSRAP but has been determined to be eligible by DOE, USACE notifies DOE and stakeholders of the decision, and DOE will add documentation of USACE's designation decision to its records and document collections. DOE may then decide to consider other options for addressing the site (Section 3.3.2.3). If new information about the site or changed site conditions are discovered, DOE may refer the site back to USACE for further consideration without a new eligibility determination.

Type of referral:

- New site: eligibility determination needed
- Inactive site with new information: eligibility determination needed
- Vicinity property (VP) of existing active or completed Formerly Utilized Sites Remedial Action Program (FUSRAP) site: considered to be eligible
- Within an existing active or completed FUSRAP site: considered to be eligible

Letter:

- Address the letter to the current Deputy Commanding General for Civil and Emergency Operations at the U.S. Army Corps of Engineers (USACE)
- Subject: Referral of a (city, state) property to the USACE for possible remediation under FUSRAP
- Reference: Memorandum of Understanding (MOU) between the U.S. Department of Energy (DOE) and the USACE Regarding Program Administration and Execution of FUSRAP, March 1999
- Within the body of the letter, briefly describe the type and basis of the referral
- **For new or inactive sites**, cite Article III, Section D, Part 1 of the MOU
- **For potential VPs or areas within an existing FUSRAP site**, cite both Article III, Section B, Part 1(b) and Article III, Section D, Part 1 of the MOU

Report:

Depending upon the content of the referral, it is recommended that the following sections be included in the report:

1.0 Introduction

This section defines the site and briefly explains the purpose of the report

- Cite and reference the MOU:
  - For new or inactive sites, cite Article III, Section D, Part 1
  - For potential VPs or areas within an existing FUSRAP site, cite Article III, Section B, Part 1(b)
- Provide the address of the site and describe the location (e.g., block and lot, coordinates)
- Include the current use of the property

2.0 Eligibility for FUSRAP

This section explains why the site is considered by DOE to be eligible for FUSRAP

- For new or inactive sites:
  - Provide a summary of the results of the eligibility determination:
    - Briefly explain how the site met each of the four eligibility criteria
    - Provide supporting documents and historical references as appendixes
    - If publicly available documents were used, cite as references
- For potential VPs or areas within an existing FUSRAP site:
  - Cite the name of the associated active or completed FUSRAP site
  - Provide the date that the associated FUSRAP site was included in the program
  - If the property is shown to be associated with the FUSRAP site, it will be eligible for cleanup
  - If publicly available documents were used, cite as references

Figure 3. Checklist for FUSRAP Referrals

3.0 Property-Specific Information

This section provides detailed information to help USACE investigate the site and any relevant documents available to DOE

- Provide historical references that support the use of the site for activities that supported the nation's early atomic weapons and energy programs
- Include a description of the nature of Manhattan Engineer District (MED)/U.S. Atomic Energy Commission (AEC) involvement at the site and processes involved
- Include geographic boundaries of areas where MED/AEC–related processes took place and known contamination
- Describe the potential radioactive and chemical contaminants at the site
  - Attach as appendixes the results of radiological surveys, if available
- Cite publicly available documents used as references, if any
- For potential VPs or areas within an existing FUSRAP site:
  - Include a list of evidence that contamination may be related to the FUSRAP site:
    - If applicable, describe the nature of the contamination and compare it to contamination at the FUSRAP site and any of its relevant VPs
    - If known, describe how contamination from the FUSRAP site could have been transported to the property
    - If known, describe operations involving radioactive materials at the site or in the area and explain how they are less likely sources of contamination than the FUSRAP site

4.0 References

This section contains references to publicly available documents, the MOU, and documents cited in the text for which a full copy is not required for USACE use

5.0 Appendixes

This section contains copies of relevant historical references and documents provided to USACE in accordance with Article III, Section D, Part 1 of the MOU

Figure 3. Checklist for FUSRAP Referrals (continued)

5.0 References

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