Recent Developments in DOE FUSRAP - 13014

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ABSTRACT

The DOE Office of Legacy Management assumed responsibility for the DOE FUSRAP in 2003. Since then, DOE has evaluated existing guidance and program needs to ensure that the program will remain effective in maintaining protectiveness at remediated FUSRAP sites. DOE has identified crucial elements that must be addressed to meet this goal. Knowledge of the sites and the program must be preserved and accessible to future custodians. Program processes must be defined and coordinated with other agencies. Long-term surveillance and maintenance (LTS&M) requirements for the sites must be based on human health risk and regulatory compliance, and those requirements must be well defined. Useful and accurate program information must be available to stakeholders. DOE has addressed these needs through development of a comprehensive program plan, an LTS&M plan for each completed FUSRAP site, a records finding aid, and a public information website. These developments help ensure that the current knowledge is preserved and passed on to future custodians and stakeholders.

INTRODUCTION

DOE and its predecessor agencies have operated FUSRAP since 1974. Program roles were divided in 1997, when Congress assigned responsibility for assessment and remediation of FUSRAP sites to the U.S. Army Corps of Engineers (USACE). Under this program division, DOE retains responsibility for (1) determining if a site with legacy radiological contamination is eligible for remediation under FUSRAP and (2) maintaining the protectiveness of remediated sites. Roles and responsibilities for the two agencies are further defined in a 1999 Memorandum of Understanding (MOU) [1]. [1]

[1] According to the MOU, a completed site has been remediated, certified to meet cleanup criteria, and transferred to DOE for LTS&M. An active site is in the process of remediation by USACE.

The DOE Office of Legacy Management (LM) is responsible for DOE FUSRAP activities. The primary mission of LM is to maintain protectiveness at remediated sites assigned to LM for long-term surveillance and maintenance (LTS&M). FUSRAP activities are conducted in accordance with LM guidance and policy, as well as applicable DOE orders and other laws and regulations. In addition, FUSRAP has program-specific requirements and procedures needed to operate the program.

LM is completing a years-long process to develop and codify program processes to ensure consistency in approach and coordination with USACE and provide guidance for current program practitioners and for the next generation of custodians.

Recent and ongoing developments include the following principal documents and guidance to address essential program functions:

- Define FUSRAP procedures—DOE developed program plan that establishes procedures to determine site eligibility and to guide transition of remediated sites to LM for LTS&M, as well as establish requirements for LTS&M, information management, and program operation [2] (the Program Plan).
- Conduct LTS&M—DOE developed site-specific LTS&M plans for remediated sites, which prescribe requirements for controlling residual risk and also identify documents describing site background, remedy selection and implementation, and final site conditions [3].
- Manage FUSRAP information—DOE developed a records finding aid, which captures the accumulated knowledge acquired since program inception for locating records of historical site operations, remediation data, and final site conditions [4] (the Finding Aid).
- Share FUSRAP information—DOE continues development work on a public website that presents program and site information to stakeholders [5].

FUSRAP BACKGROUND

The Manhattan Engineer District (MED) and the U.S. Atomic Energy Commission (AEC) contracted with private and public parties to provide services needed to develop the first nuclear weapons and to support subsequent weapons and nuclear power research and production. When work under a given contract was completed, MED or AEC surveyed the site for radiation and, if necessary, remediated the work site to radiological standards in effect at that time and released the site to the owner. In the early 1970s, AEC determined that these sites should be reevaluated for residual radiological contamination and, if necessary, remediated to comply with current standards. FUSRAP was established in 1974 for this purpose.

DOE FUSRAP (also referred to as the Program) is aligned with LM's mission to fulfill DOE's post-closure responsibilities at remediated sites and ensure the protection of human health and the environment [6]. The Program mission is to fulfill DOE's responsibility to conduct all actions necessary to ensure protectiveness of human health and the environment from long-lived radiological wastes associated with past support to the nation's nuclear energy, weapons, and research activities. For sites that have been remediated to allow unlimited use and unrestricted exposure (uu/ue), the Program's primary responsibility is to maintain site records in perpetuity.

DEFINING FUSRAP PROCEDURES

In 2012, DOE revised FUSRAP guidance and protocols to reflect current Program requirements. This information has been captured in the Program Plan [2], which supersedes protocols that governed FUSRAP operations and provides guidance to

- Identify and determine the eligibility of a candidate site for remediation under FUSRAP.
- Transition a remediated FUSRAP site from USACE to DOE.
- Conduct LTS&M for FUSRAP sites.
- Refer a completed FUSRAP site to USACE for re-assessment and, if required, additional remediation.

Additionally, the Program Plan incorporates LM guidance by reference for environmental compliance, project management, and other program elements.

In developing the Program Plan, DOE reviewed current and historical FUSRAP guidance from the 1970s and 1980s. These documents established past FUSRAP practices and were used to ensure that this knowledge was captured in the revised Program Plan. DOE evaluated more recent Program guidance (e.g., USACE and DOE guidance), as well as LM and DOE policy and guidance to ensure that Program guidance aligns with these other requirements.

DOE developed a flowchart of all the activities that occur during a FUSRAP site's life cycle to identify processes that need to be defined and to identify agency responsibilities (Figure 1). DOE wrote descriptions for the processes for which DOE is responsible and incorporated the provisions of DOE guidance, such as the Site Transition Framework [7], into Program processes.

In addition, the Program Plan provides information on administrative and other functions that are not site specific but are necessary for Program administration and operations. These include administrative functions such as budgeting and funding; health, safety, and environmental support; and communication with USACE and other agencies. Other functions described in the Program Plan are ongoing records management and stakeholder support.

The following sections summarize principal FUSRAP processes, which are detailed in the Program Plan.

Determining Eligibility

DOE is responsible for determining if a candidate site is eligible for remediation under FUSRAP. An eligible site must meet all four of the following criteria:

1. Work was conducted in support of MED or AEC activities (typically during the 1940s to early 1960s time frame).
2. The activities resulted in residual radioactive contamination (primarily uranium, thorium, and their daughter elements) at levels that exceed current cleanup criteria.
3. The authority to conduct remedial action at the site is prescribed within the Atomic Energy Act, as amended.

4. The site is not subject to remedial action under any other remedial action program nor is remediation of the residual radioactive contamination addressed under an NRC or state license.

If DOE determines that a site is eligible for remediation under FUSRAP, DOE assembles an eligibility package and refers the site to USACE, in accordance with the 1999 MOU [1]. If USACE determines that a CERCLA response action is needed, USACE will inform Congress that the site is designated for inclusion into FUSRAP.

Congress may add a site to FUSRAP through an appropriation. When this occurs, the eligibility determination process is not applicable.

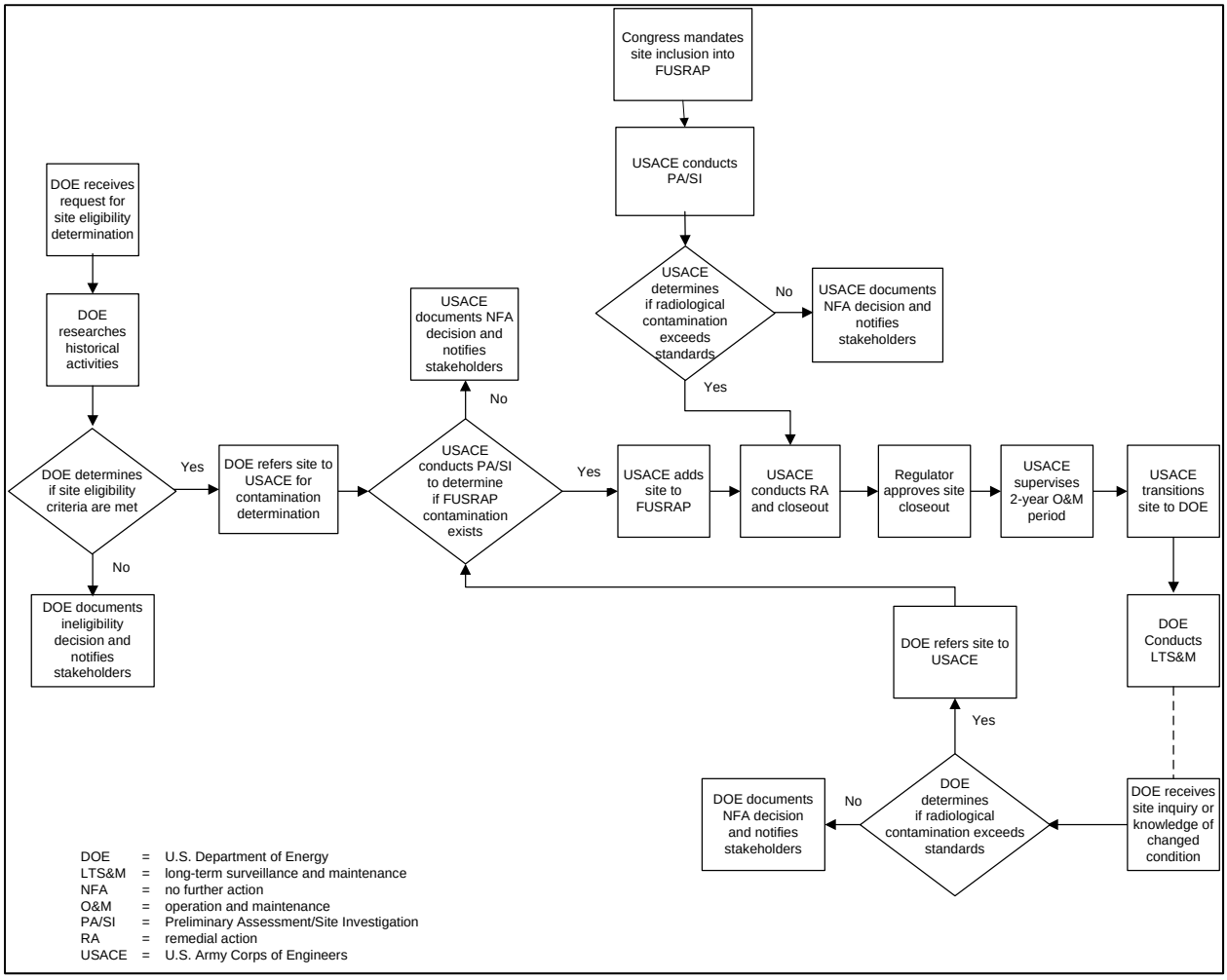

Figure 1. FUSRAP site life-cycle flowchart.

Transitioning a Remediated Site from USACE to DOE

Since 1989, LM and its predecessor organizations have been responsible for LTS&M of remediated sites. Procedures for site transition to the LTS&M phase have been refined and incorporated into the Program Plan.

As the designated long-term custodian for remediated sites, DOE seeks to conduct a seamless and transparent transition that maintains protectiveness, assesses residual risk, captures the information needed for post-closure care, and identifies the LTS&M requirements [7, 8]. To facilitate site transitions, DOE developed guidance that outlines the roles of the participants to the transition and describes the process. The Program Plan incorporates DOE guidance and Program requirements (e.g., as defined in the MOU), and describes the transition process for FUSRAP sites, consistent with USACE guidance [9]. The FUSRAP transition process includes transfer of knowledge about final site conditions and prescribes technical evaluations, real property transfer for any required easements or institutional controls (ICs), and review of stakeholder concerns and issues.

DOE will inform stakeholders of the transition status throughout the transition process.

Referring a Completed FUSRAP Site to USACE for Re-assessment

The MOU recognizes the possibility that a completed site may require evaluation for additional remediation. This can occur if unassessed contamination is found or site conditions or land use has changed. The referral process is defined in the Program Plan.

Congress directed that only USACE has authority to conduct remedial action for FUSRAP sites. Therefore, if DOE is informed that a hazard may exist on a completed FUSRAP site, DOE will confirm that the hazard exists and refer the site to USACE. USACE will determine whether the contamination is eligible for FUSRAP remediation. If appropriate, USACE will formally include the site in FUSRAP (referred to as “designation”), the site status will be changed from completed to active, and the applicable provisions of the MOU will apply.

The Program Plan outlines the steps needed for DOE to refer a site back to USACE for the analysis and determination that additional remediation is warranted, as shown on the site life-cycle flow chart (Figure 1). DOE will inform stakeholders of referral actions.

General Guidance for LTS&M

The Program Plan presents general guidance for establishing LTS&M requirements. Most completed FUSRAP sites require only records activities and stakeholder support. LTS&M requirements for sites with residual contamination may include inspections; monitoring of environmental media; managing real property instruments (e.g., access agreements and ICs); maintaining isolation structures, access controls, and other engineered controls; and communicating periodically with stakeholders.

CONDUCTING LTS&M OF FUSRAP SITES

LTS&M requirements for remediated FUSRAP sites are designed to manage residual risk from residual radiation or radiological contaminants. DOE developed the *Long-Term Surveillance and Maintenance Requirements for Remediated FUSRAP Sites* [3], which documents the results of the risk assessment and the specific LTS&M activities required at each completed site. DOE assumes that land use will change over time and that, without intervention, site knowledge may be lost. LTS&M activities address these vulnerabilities. DOE maintains and updates this document to incorporate new sites and address changes in site conditions.

DOE maintains protectiveness at completed FUSRAP sites through

- Conducting surveillance of site conditions and assessing risk.
- Performing monitoring and maintenance to maintain the implemented remedy.
- Establishing visible, durable, and enforceable ICs to control exposure to residual radioactive contamination, if needed.
- Preserving and disseminating site knowledge

The means of verifying ongoing protectiveness is established at the time of transition and is documented in the site-specific LTS&M plan.

The documentation in the Considered Sites Database (CSD) demonstrates that final radiological conditions at most completed FUSRAP sites allow uu/ue; therefore, LTS&M consists of organizing the site records collection, ensuring regulatory compliance for the remedy, and providing ongoing stakeholder support. At some sites, supplemental limits were applied to radiological contamination that exceeded the numerical limits and was left in place.[2] This contamination does not pose an unacceptable risk if the land use at the time of the certification or an acceptable land use continues. DOE will determine if surveillance is necessary to track land use and confirm that the exposure assumptions at the time of certification remain valid.

Assessing Risk

In assessing potential site risk, DOE paid particular attention to land-use assumptions and exposure scenarios used for certifying that a given site was suitable for uu/ue (this condition is often referred to in FUSRAP documentation as “unrestricted use”). Some sites were remediated to a condition that poses no unacceptable health risks to a hypothetical subsistence farmer or resident with a home garden. For uu/ue under these exposure scenarios, the DOE cleanup criteria were activity limits for radionuclides and a total effective dose equivalent of 1 mSv/yr (100 mrem/yr) [10, 11]. No ICs are needed for these sites. However, this level of protectiveness is not confirmed for all sites, and DOE has imposed surveillance requirements at sites where some land uses should be restricted; ICs are being pursued at some of these sites. DOE will reassess the need for ICs for a site if conditions change or if new information comes to light. Sites remediated by USACE after 1997 typically used 0.25 mSv/yr (25 mrem/yr) as a release criterion. At all sites, through the As Low As Reasonably Achievable process, final dose rates were typically far less than the DOE criterion of 1 mSv/yr (100 mrem/yr).

[2]Generic limits were applied for radium and thorium in soils, and site-specific limits were derived for other radionuclides.

LTS&M Requirements

After remediation is completed on an active site and the site has been transitioned to DOE for LTS&M, DOE assesses residual risk and prescribes the activities necessary to ensure that site conditions remain protective and in full compliance with applicable regulations.

For completed sites that have been released for uu/ue, there is no residual contamination that must be managed to ensure ongoing protectiveness. For sites where some residual contamination remains, protectiveness is ensured by maintaining isolation of the contamination, restricting use of the land and improvements, or enforcing any other provisions of the remedy that are necessary to control exposure and manage waste.

Surveillance and Monitoring

DOE routinely visits completed sites to establish a baseline of site conditions, detect changed conditions, identify maintenance needs, and determine appropriate future oversight actions. These trips are conducted by staff trained to evaluate site protectiveness on the basis of the physical site conditions.

For completed sites that were released for uu/ue and do *not* contain supplemental limits areas, DOE will conduct periodic site visits to monitor changes in land use and anticipate community questions about site conditions. The visit frequency for these sites will be approximately every 5 years. The site visits are generally drive-by visits to ascertain if land use has changed at the site or in the site vicinity. Physical conditions are noted, and any concerns are recorded for follow-up investigation. Many of the sites are clustered in discrete areas: western Ohio; Buffalo, New York; central New Jersey; southern New York; and the New England coast. Sites in a cluster will be visited on the same trip in conjunction with inspection trips to other sites to reduce LTS&M costs. These site visits are discretionary and are not LTS&M requirements.

DOE conducts periodic visits to sites where DOE or USACE applied supplemental limits to ensure that they remain protective. The objectives of these visits are to

- Document that land use has not changed from the assumed land use that was the basis for determining that residual radioactive contamination in supplemental limits areas poses no unacceptable risk.
- Ensure that supplemental limits areas have not been disturbed.
- Ensure that no uncontrolled recycling, disposal, or dispersal of contaminated material has occurred.

For supplemental limits sites, remedial action results in a protective end state as long as site conditions do not change. DOE inspection and monitoring activities assess the degree to which physical conditions at a site have changed. These activities can provide “negative data” to stakeholders to demonstrate that a site remedy continues to perform as designed, remains protective, and has had no violations of the ICs. DOE also will contact owners and tenants of the sites where supplemental limits were applied to ensure the parties (1) remain aware of the residual contamination and (2) will contact DOE if redevelopment or demolition is planned so DOE can properly manage the residual contamination.

If supplemental limits material is disposed of at some time in the future, disposal must conform to applicable requirements, such as waste classification and acceptance criteria. If supplemental limits material requires management as regulated waste, DOE will establish ICs for proper management and disposal of the material. The LTS&M plan for the site will be amended to ensure that these controls remain part of the site knowledge for future owners.

DOE will conduct follow-up inspections or focused monitoring as required in response to results from inspections or monitoring or to address stakeholder questions or concerns. This may be as simple as drive-by viewing of the site to check site conditions or activity, but may require more in-depth investigations, such as onsite measurements and subsequent evaluations by subject matter experts.

Monitoring of any environmental medium may be necessary. Monitoring could be required in perpetuity or for a specified time to demonstrate that performance assumptions for a given remedy remain valid. Using input from regulators and affected public agencies, USACE or DOE (depending on when the need for monitoring is identified in the site life cycle) must clearly define and document the monitoring objectives so that it will be clear when the objectives have been met and the monitoring can be terminated. Consultation with regulators and other agencies helps ensure that they support the need for monitoring and can respond to stakeholder concerns that are addressed to their agency. DOE may identify local resources for sites with routine but frequent inspection and monitoring requirements or for instances in which a site condition needs to be checked quickly to determine an appropriate response to a site concern. This has the added benefit of establishing some institutional knowledge in the local community.

Table 1 presents surveillance and monitoring requirements for completed FUSRAP sites.

Maintenance

DOE conducts maintenance activities to ensure that site conditions remain protective. Site-specific maintenance requirements are driven by features of a selected remedy, laws and regulations, and best management practices. DOE policy and guidance can impose additional requirements for maintenance activities, such as compliance with worker safety regulations and environmental laws.

DOE must maintain physical controls that are part of a remedy, which may include maintenance of engineered controls (disposal cells or other waste containment systems), configuration of supplemental limits areas, access controls (fences and gates), and notification devices such as signs and boundary monuments. Laws and ordinances that apply to landowners and other users of the property may drive other maintenance requirements, such as well maintenance, litter control, and noxious and invasive weed control.

Inspection and monitoring activities include evaluation of maintenance needs. . Maintenance may be required to ensure that all physical and engineered structures function as designed and to maintain the site appearance to assure stakeholders that DOE is managing risk. As with inspections and monitoring, DOE often uses local resources to perform maintenance functions.

Table I. Summary of LTS&M Requirements for DOE FUSRAP Sites (Source: *Long-Term Surveillance and Maintenance Requirements for Remediated FUSRAP Sites*)

Site Name	DOE LTS&M Requirements	Institutional Controls	Supplemental Limits[a]	Institutional Controls	Site Visit Frequency	Last Year Visited	Comments
Acid/Pueblo Canyon, New Mexico, Site	Records management and stakeholder support	See comments	No	Not imposed under FUSRAP	None	2006	Site managed by Los Alamos National Laboratory under an Order of Consent, no further FUSRAP involvement
Adrian, Michigan, Site	Records management and stakeholder support; owner contact and site visit every 2 years. Potential institutional controls monitoring.	None	Yes	DOE will determine if demolition debris requires disposal as regulated waste	2 years (may revise based on IC)	2010	Uranium contamination left in below-grade drains and utility chases
Albany, Oregon, Site	Records management and stakeholder support	None	Yes	None	Not necessary - government tenant	Not visited	Site is owned by the DOE Department of Fossil Energy, Th-232 in subfloor drains and soil, DOE determined that demolition debris will contain less than the authorized limit for Th-232 and no disposal restrictions will apply
Aliquippa, Pennsylvania, Site	Records management and stakeholder support; owner contact and site visit every 2 years. Potential land use monitoring.	No	Yes	DOE will determine if demolition debris requires disposal as regulated waste	2 years, may revise per result of determination if debris is regulated	2010	Uranium left on building structures; building used for warehouse
Bayo Canyon, New Mexico, Site	Records management and stakeholder support	See comments	No	Not imposed under FUSRAP	None	2006	Sr-90 contamination left in place within a 0.61 hectare (1.5 acre) area, site managed by Los Alamos National Laboratory under an Order of Consent, no further FUSRAP involvement
Berkeley, California, Site	Records management and stakeholder support	None	No	Not imposed under FUSRAP	Not necessary - State operates site under RAM license	Not visited	Health physics monitoring performed by the University of California under their State radioactive materials license, DOE will remediate contamination before terminating contract with university
Beverly, Massachusetts, Site	Records management and stakeholder support	None	Yes, see comments	None	5 years	2010	Supplemental limits were applied to surface contamination fixed on concrete slabs; rubblized demolition debris did not exceed volumetric limits; no disposal restrictions on remaining foundation materials
Buffalo, New York, Site	Records management and stakeholder support	None	No	None	5 years	2009	
Chicago North, Illinois, Site	Records management and stakeholder support	None	No	None	5 years	2006	National Guard armory

Site Name	DOE LTS&M Requirements	Institutional Controls	Supplemental Limits[a]	Institutional Controls	Site Visit Frequency	Last Year Visited	Comments
Chicago South, Illinois, Site	Records management and stakeholder support; potential monitoring of contaminated sewers for disturbance	None	No	DOE will determine if demolition debris from the sewers requires management as regulated waste	5 years	2006	University of Chicago campus, DOE found contamination in sewers serving the affected buildings and indicated that documentation should be entered into the University's permanent record, supplemental limits were not formally applied
Chupadera Mesa, New Mexico, Site	Records management and stakeholder support	None	No	None	Not necessary	Not visited	No further action taken under FUSRAP based on radionuclide levels that pose no unacceptable risk
Columbus East, Ohio, Site	Records management and stakeholder support	None	No	None	5 years	2010	Redevelopment planned
Fairfield, Ohio, Site	Records management and stakeholder support	None	Yes, see comments	None	5 years	2010	Maximum uranium concentration exceeds authorized limits beneath a concrete slab, average concentration is 0.22 Bq/g (6.1 pCi/g)
Granite City, Illinois, Site	Records management and stakeholder support	None	No	None	5 years	2011	
Hamilton, Ohio, Site	Records management and stakeholder support	None	No	None	5 years	2010	
Indian Orchard, Massachusetts, Site	Records management and stakeholder support	None	Yes, see comments	None	5 years	2008	Supplemental limits addressed uranium on building surfaces, buildings have since been demolished
Jersey City, New Jersey, Site	Records management and stakeholder support	None	No	None	5 years	2007	Site redeveloped for commercial and residential use
Madison, Illinois, Site	Records management and stakeholder support; land use monitoring and owner contact every 2 years.	None	Yes, see comments	None	2 years	2011	Alternate limit applied to uranium in hard-to-reach areas beneath roof, dose to worker near these areas would be 0.083 mSv/yr (8.3 mrem/yr), risk for residential use not assessed
Middlesex North, New Jersey, Site	Records management and stakeholder support for portion of site remediated by DOE, TBD based on implementation of remedy for additional contamination	TBD	TBD	TBD	TBD	2011	Elevated radium detected at south end of property, USACE is determining if contamination is eligible for remediation under FUSRAP
New Brunswick, New Jersey, Site	Records management and stakeholder support; biennial inspection and protectiveness certification	Excavation restriction in area containing arsenic in soil that exceeds State standards	No	Deed Notice implemented in accordance with New Jersey regulations	2 years	2011	New Jersey Department of Environmental Protection issued no further action determination for entire site (includes portion of public right-of-way), DOE-owned property sold to private party in 2009
New York, New York, Site	Records management and stakeholder support	None	No	None	5 years	Not visited	
Niagara Falls Vicinity	Records management and stakeholder support	None	Yes, see comments	None	1 year	2011	Supplemental limits applied to Ra-226 exceeding authorized limits in unexcavated

Site Name	DOE LTS&M Requirements	Institutional Controls	Supplemental Limits[a]	Institutional Controls	Site Visit Frequency	Last Year Visited	Comments
Properties, New York, Site							portion of Central Drainage Ditch, no unacceptable risk under reasonable exposure scenario or if sediment used as fill beneath a residence, USACE will complete remediation of three properties, DOE will determine if additional remediation is required on vicinity property H'
Oak Ridge, Tennessee, Warehouses Site	Records management and stakeholder support	None	No	None	5 years	2010	
Oxford, Ohio, Site	Records management and stakeholder support	None	No	None	5 years	2010	
Seymour, Connecticut, Site	Records management and stakeholder support; owner contact and site visit every 2 years. Potential institutional controls monitoring.	None	Yes	DOE will determine if disposal restrictions needed for uranium contamination left in drains	2 years (may revise based on IC)	2010	Supplemental limits applied to uranium fixed to drains that are beneath the remaining building
Springdale, Pennsylvania, Site	Records management and stakeholder support	None	No	None	5 years	2010	
Toledo, Ohio, Site	Records management and stakeholder support	None	No	None	5 years	2010	Includes one vicinity property, a residence
Tonawanda North, New York, Site, Units 1 and 2	Records management and stakeholder support	None	No	None	5 years	2010	Dose to urban farmer would be less than 0.25 mSv/yr (25 mrem/yr), adjacent to closed municipal waste landfill
Wayne, New Jersey, Site	Records management and stakeholder support; monitor institutional control	Groundwater	No	Deed restriction on groundwater use	2 years	2010	Site listed on National Priorities List, DOE will remove groundwater use restriction when delisted, USACE completed remediation of offsite contamination in public rights-of-way in 2010

[a] Visits to sites where supplemental limits were NOT applied are discretionary and are not listed as a requirement in the site chapters.
Key: RAM = radioactive materials; TBD = to be determined

Reporting

DOE provides monitoring and inspections results to stakeholders through the LM public website at http://www.lm.doe.gov.

MANAGING FUSRAP INFORMATION

Information and records management for FUSRAP sites presents challenges not associated with other programs or sites. Sites under the Program were active as early as the 1940s, and DOE needs to preserve and access the historical information for long-term management. FUSRAP began in the 1970s and has involved various DOE offices and other federal agencies as it has evolved. Records from MED and AEC operations and FUSRAP activities are distributed across many organizations and locations, including LM storage facilities and National Archives and Records Administration facilities.

One of the primary obligations of the Program is to establish a comprehensive knowledge base of information, both in LM custody and in the custody of outside parties, for use by future custodians. Records must describe site operations that resulted in waste generation, the extent of contamination, remedial action activities, final site conditions, site verification, and regulator concurrence.

LM began an evaluation of the available records in 2004 with assistance from former Program workers and determined that a focused effort was needed to identify records and preserve access to the information. DOE captured this information in *FUSRAP Historical Records: Collections, Access, Custody, and Finding Aids* [4] (Finding Aid), which was first issued in 2008. The purpose of the document is to (1) assist in identifying and retrieving records created by and assembled in support of FUSRAP since its inception in 1974, and (2) assist in identifying and retrieving records created during legacy MED and AEC activities that may be relevant to current or potential FUSRAP sites. The Finding Aid describes the records program for FUSRAP, provides guidance and tools to identify and retrieve records, and incorporates LM and DOE guidance for records management.

The most frequently requested site information concerns radiological conditions at a site, eligibility of a contaminated site for remediation, worker and public exposure during operations or remediation, and liability for remediation. The Finding Aid is revised as new records and record sources are identified. It is a controlled document restricted to internal distribution.

The Finding Aid includes descriptions of principal information collections. Some of these are described below.

Considered Sites Database: The CSD presents historical and programmatic information that documents eligibility determinations for more than 500 candidate sites. It also contains principal documents for included and completed FUSRAP sites. The CSD is accessible on the LM public website at http://www.lm.doe.gov/Considered_Sites/.

Considered Sites Library (CSL): The CSL contains records supporting eligibility determinations for FUSRAP sites. This LM collection captures the results of the records searches

that began in the 1970s and continued over the following 2 decades. By the early 1990s, the CSL included more than 16,000 documents.

Oak Ridge Remedial Action Records: Prior to 1997, DOE was responsible for FUSRAP remediation. The Oak Ridge Operations Office managed FUSRAP remediation activities. The records documenting remediation and verification activities from the start of FUSRAP through 1997 were located at Oak Ridge, Tennessee. After 1997, DOE transferred records for active sites to USACE and for completed sites to LM. LM stores the remediation records in Morgantown, West Virginia. Records Management staff in Grand Junction, Colorado, maintain indexes for the completed FUSRAP sites.

National Archives/Federal Records Centers/DOE Facilities: These locations maintain records generated by MED and AEC and include contracts, inspection and trip reports, and other documentation of site activities that are necessary for eligibility determinations. Some of these records are in Federal Records Centers or at DOE facilities and remain in DOE custody. Other historical records have been submitted to the National Archives and are in the public domain. Many historical records are classified and remain in DOE custody. The Finding Aid describes indexes to these locations and adds new indexes as they are identified. Indexes are maintained in Program records.

USACE Records: When USACE completes remediation of a site and transitions it to DOE, remedial action records will be sent to the Federal Records Center in Kansas City. USACE will retain custody of these records. The USACE site records will include active site remediation records transferred from Oak Ridge by DOE in 1997. DOE will add index materials for the USACE collections to Program records. Because the USACE collections contain proprietary and business sensitive information with the site remediation records, USACE will supervise DOE in accessing those collections.

U.S. Nuclear Regulatory Commission Records: Some FUSRAP candidate sites were operated under a license issued by AEC and NRC. Information pertaining to each license is contained in a docket. The license and docket numbers for FUSRAP sites are captured in the CSD and CSL. A list of the AEC and NRC license and docket numbers is also maintained in the Finding Aid.

Geospatial Data: In addition to historical records of FUSRAP sites, DOE maintains electronic data from recent remediation activities. When completed sites are transferred to DOE, USACE provides environmental data, geospatial data, and engineering and construction data for evaluation and archiving and for geospatial mapping applications. DOE and USACE data specialists work to identify and gather information needed to meet long-term care requirements and to obtain data for accurate property description and mapping requirements.

SHARING FUSRAP INFORMATION

One of the primary DOE goals is to provide accurate information and timely communications to stakeholders. FUSRAP utilizes a variety of public involvement activities and tools to meet this goal. DOE continues to develop tools and services to enhance stakeholder communication.

One of these services is the DOE FUSRAP website that provides public access to current and historical site documents and a direct e-mail address for public inquiries. DOE also maintains an online Geospatial Environmental Mapping System (GEMS) that provides current mapping and monitoring data for every site under DOE management. No DOE FUSRAP sites currently require active monitoring; however, it is expected that future sites transitioned from USACE may require ongoing monitoring, and data from those sites will be available on GEMS.

Many of the DOE FUSRAP sites are considered "records only" sites, where remediation is completed and no further monitoring or maintenance is required because the site can be released for uu/ue. For these sites, public affairs activities involve providing information on the site webpage and responding to stakeholder inquiries. Other sites may have land use restrictions in place and require more-active management, including periodic visits to identify whether conditions at the site have changed.

The DOE FUSRAP website is located at http://www.lm.doe.gov/default.aspx?id=866, where stakeholders will find program information, key documents, and a map showing the location of the 30 completed DOE FUSRAP sites. The map has embedded links to the individual webpages for each site. Each site page contains background information, current status, and contact information for public inquiries. Links to available USACE websites for the 23 active USACE FUSRAP sites are also posted. In addition, the CSD is posted on the website and is linked to the individual site pages. The CSD contains information and decision documents on the more than 500 sites that were evaluated for inclusion in the Program.

DOE established an e-mail address, FUSRAPinfo@lm.doe.gov, to provide direct communication to DOE. This e-mail address is included in public communications efforts, including a program overview report and periodic newsletters, which are distributed to stakeholders and other members of the public to encourage one-on-one communication and a quick response to public inquiries.

CONCLUSIONS

DOE operates FUSRAP in accordance with established procedures and in coordination with USACE. DOE has instituted multiple measures to preserve FUSRAP site and program knowledge, maintain protectiveness, and communicate information to stakeholders. These FUSRAP elements are designed to provide consistency in approach and maintain protection of human health and the environment.

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