



LM's Application of the DOE Institutional Controls

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Legacy Management

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Office of Legacy Management



Site Anticipated Sites in LM MM Through FY 2030 Requiring LTS&M					Site Category	
					Category 1 activities typically include records-related activities and stakeholder support	
					Category 2 activities typically include routine inspection (any site visit needed to verify the integrity of engineered or institutional barriers) and monitoring/maintenance, records-related activities, and stakeholder support	
					DIP = Disposal Processing DR = Decommissioned	

- LM is the designated program office to fulfill post-closure responsibilities.
- LM takes responsibility of remediated sites after EM, USACE, or NRC work is completed.
- LM works closely with tribal, state, and local governments to implement and manage remedies and controls as well as our public education and outreach.
- LM executes its mission as a High Performing Organization (HPO) with a combination of federal employees and contractor partners.

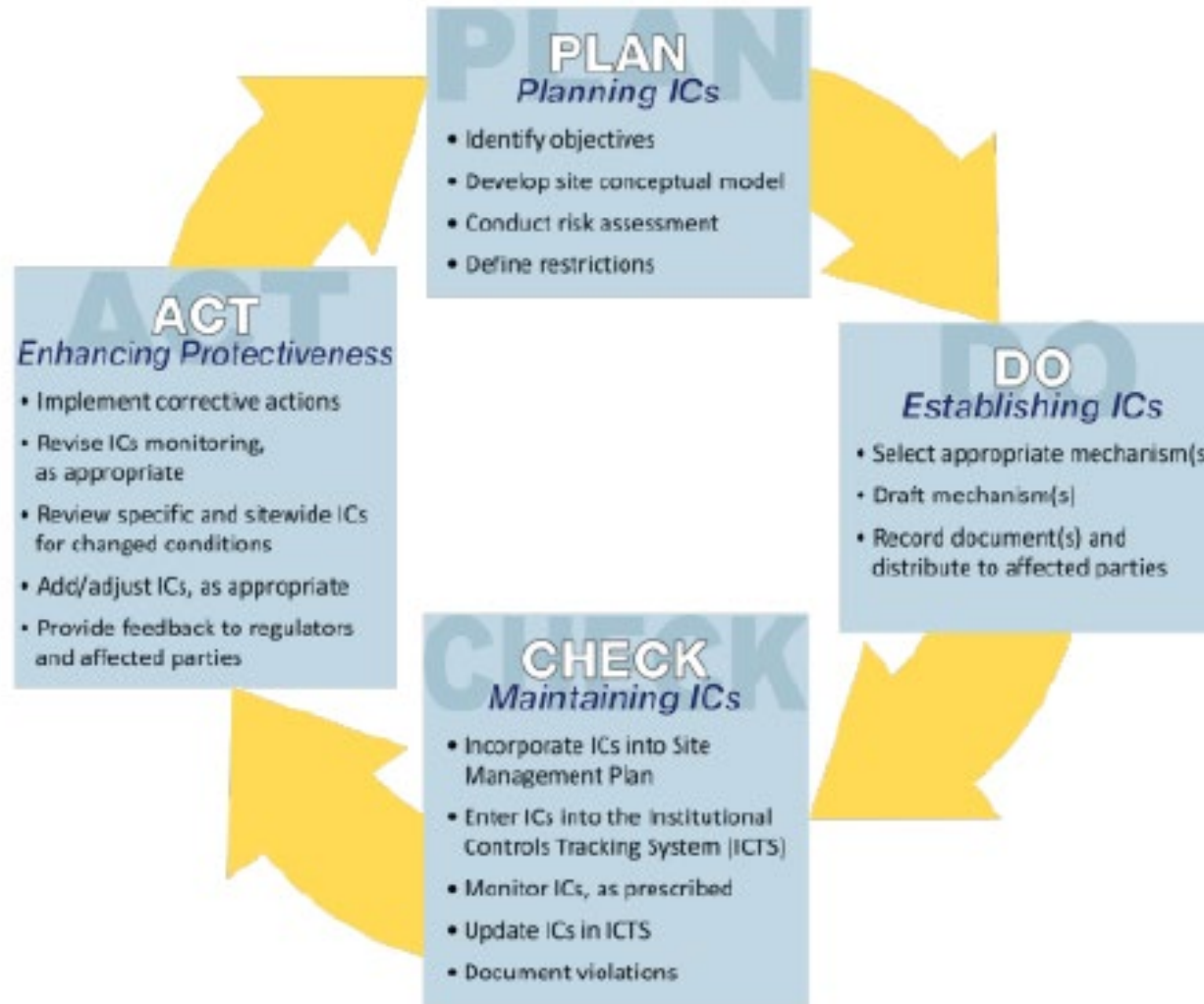


IC Program Overview

- Since LM sites are diverse in historic operations and in remaining residual contamination, the IC program is flexible in structure to address:
 - Diverse regulatory authorities
 - Requirements that support the current Long-Term Surveillance and Maintenance Strategy
 - Development, implementation, and enforcement of ICs are similar, but the actual legal instruments that are utilized are different
 - For example, Federal Facility Agreements (FFA) under CERCLA versus the general license under the Uranium Mill Tailings Radiation Control Act of 1978
 - LM has the responsibility to ensure that:
 - ICs remain in place as long as they are needed at LM sites
 - These controls and measures remain in effect even if there is a change in ownership or land use



IC Program Overview



Elements of the ICs Program

- LM Guidance Document, January 2015. To be updated by April 2017
- Data Standard, October 2015. Identifies parts of IC to capture in the database
- Institutional Controls Tracking System (ICTS)
 - Maintains list of site-specific ICs – Data Collection Utility
 - Supports annual validation process
 - Includes provisions for inspecting ICs (events) and captures the results of the inspections



Planning ICs

- **Typically occurs during remediation** – prior to transition to LM
- **LM's guidance helps ensure ICs are:**
 - **Visible** – Information regarding restrictions and areas where they are needed is readily available to the public
 - **Durable** – Documented assurance that restrictions are in effect as long as contamination is above acceptable standards
 - **Enforceable** – Provides certain entities the authority to stop any violations of required restrictions
- **Includes provisions for termination**



Considerations for Planning ICs



Risks

Future Land Use

Long Term Requirements

Stakeholders

Beneficial Reuse



Establishing ICs: Graded Approach

Site Regulatory Program

EPA

- Proprietary controls
 - Easements and covenants
 - Deed restrictions
- Governmental controls
 - Zoning
 - Well-drilling restrictions
 - Jurisdictional wetlands
- Enforcement and permit tools with IC components
 - FFA
 - Consent decree
- Informational devices
 - Deed notices
 - State registry of waste sites

LM Protectiveness Measures

DOE

- Administrative controls
 - Governmental
 - Proprietary
 - Environmental and statutory mechanisms
- Informational controls
 - Notices
 - Public access to information
- Physical controls
 - Engineered controls
 - Access controls
 - Wellhead security
- LM Protectiveness Measures
 - Fact sheet
 - Webpage





LM (left) and contractor staff (below) conduct a site inspection on Navajo Nation lands

Fernald Preserve Institutional Control Inspection		Date: 10/12/2022		Inspector: Nevein		Location: NM	
Type of Finding	Type of Finding			Description	Photo No.	Corrective Measures	Responsible Party
	Leak	Structural Damage	Other				
Institutional Control							
Petriferous Layer with Labels							
Petriferous Access Barrier				NO FINDINGS			
				NO FINDINGS			
				NO FINDINGS			
				NO FINDINGS			
Petriferous Signage				NO FINDINGS			
CLM 932				NO FINDINGS			
				NO FINDINGS			
				NO FINDINGS			
Petriferous Line and Labels with Labels				RIGHT AREA MARK CHANGED			
CANNIST				NO FINDINGS			
TRUCK				NO FINDINGS			
PAVING SUBSTRATE				NO FINDINGS			
PAVING SUBSTRATE				NO FINDINGS			
TRUCK				NO FINDINGS			
Water Access Barrier				NO FINDINGS			
				NO FINDINGS			
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Fernald Preserve Inspection Checklist.





Institutional Controls

1 - IC Site

Input IC Site Item

IC ID: Site Designator:

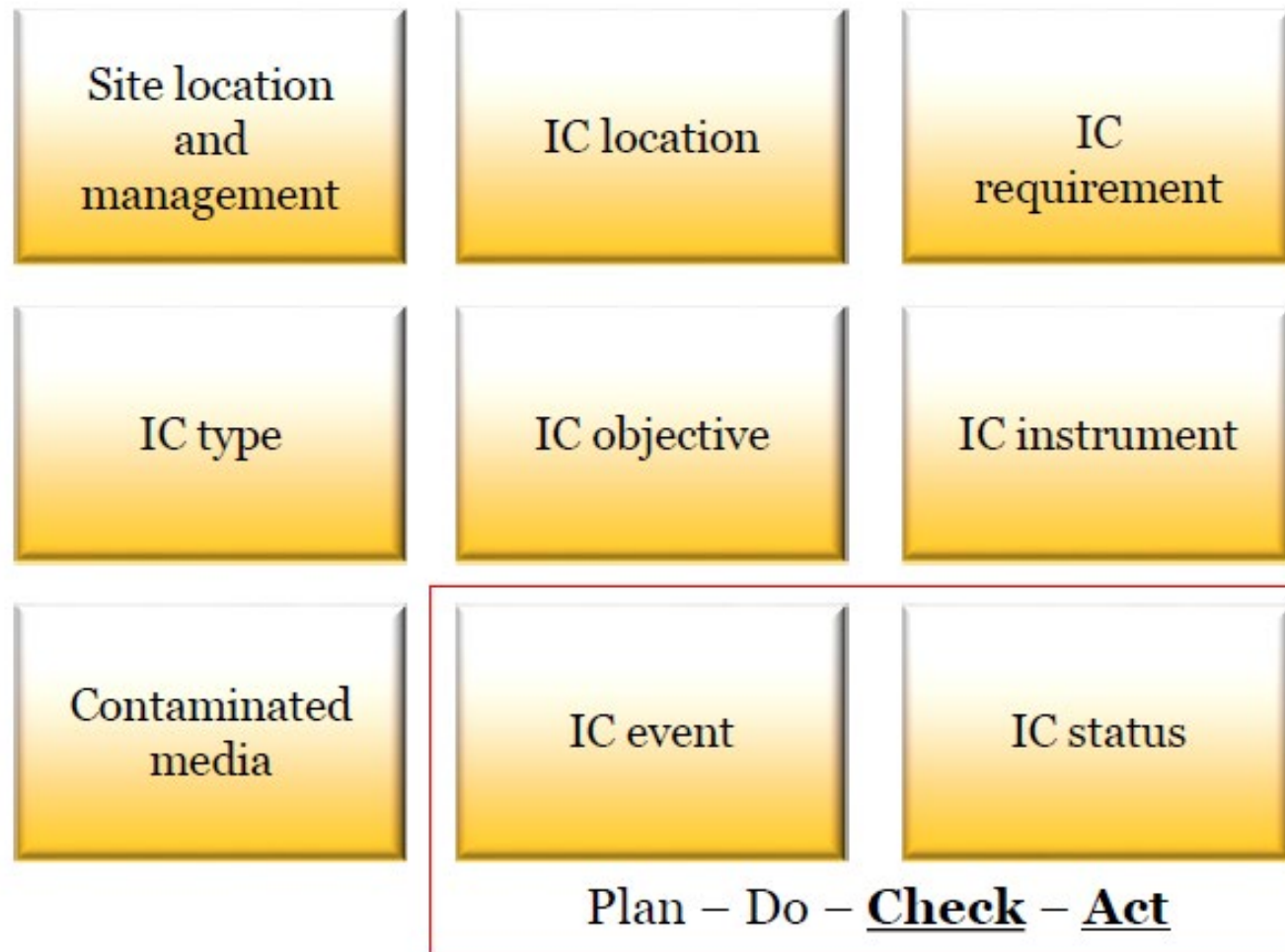
IC Description:

Notes:

Filter by Site:

	ID	Description	Site Designator	Spatial Extent	Instrument	IC Type	IC Regulator	Enforceable Instrument	IC Objective	Status	Status Date	
	ADR-PM01	Fact Sheet	Adriano, NJ Site	Sitewide		Fact sheet (Informational Control > Public Education)	DOE Imposed		Maintain awareness of site history and remaining contamination	Passive	12/12/2018	✗
	ADR-PM02	LM Web Page	Adriano, NJ Site	Sitewide	NA	LM Webpage (Informational Control > Public Education)	DOE Imposed		Maintain awareness of site history and remaining contamination	Passive	12/12/2018	✗
	ALP-PM01	Fact Sheet	Aliquippa, PA Site	Sitewide		Fact sheet (Informational Control > Public Education)	DOE Imposed		Maintain awareness of site history and remaining contamination	Passive	12/12/2018	✗
	ALP-PM02	LM Web Page	Aliquippa, PA Site	Sitewide		LM Webpage (Informational Control > Public Education)	DOE Imposed		Maintain awareness of site history and remaining contamination	Passive	12/12/2018	✗
	AMB-AD01	Federal ownership	Ambrosia Lake, NM, Disposal Site	Sitewide 287.73	Quitclaim Deed	Federal ownership (Administrative Control > Governmental Control)	U.S. Nuclear Regulatory Commission	Long-Term Surveillance Plan	Control land use	Completed	02/01/2021	✗
		There shall be										

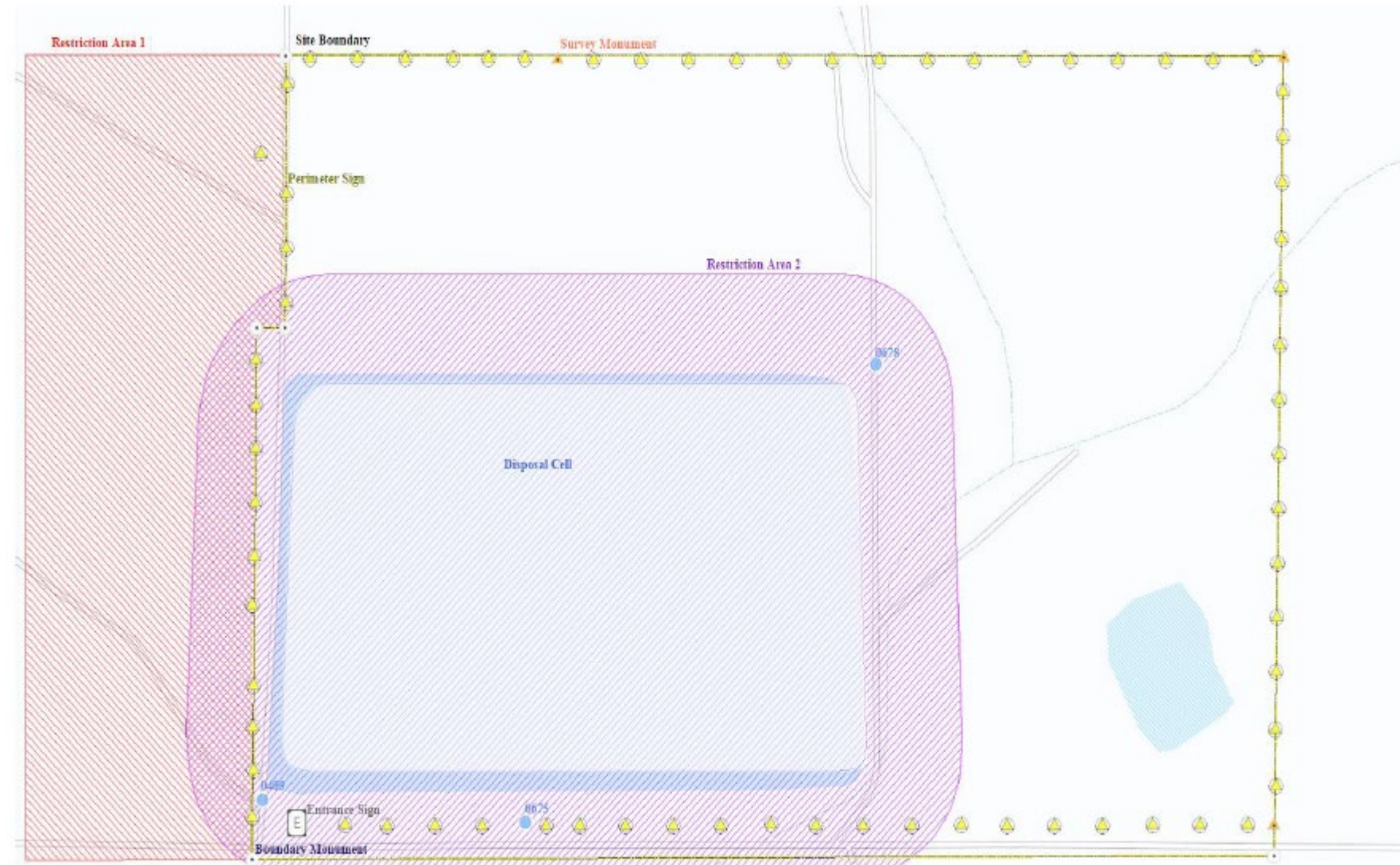




Maintaining ICs -Annual IC Validation Process

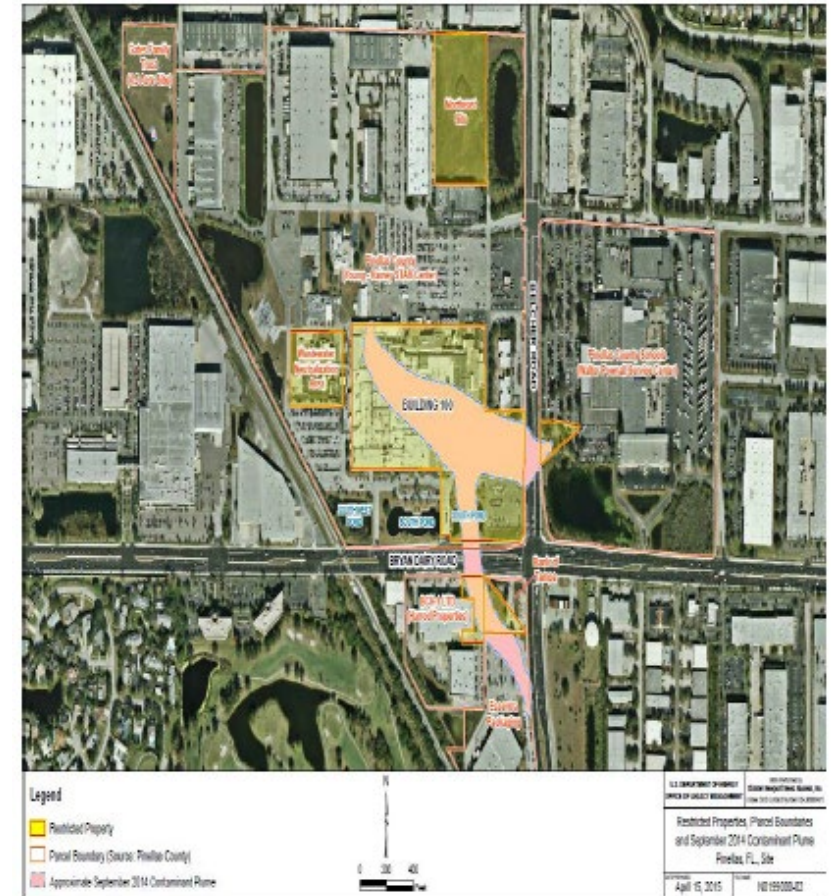


IC Example – Ambrosia Lake



Enforcement of ICs

- **Regulatory authority and the legal instrument utilized for implementation.** Starts with the LM
 - Site manager and site regulator
 - Escalates to the heads of their respective departments
- **The same IC can be enforced under multiple legal instruments/authorities.**
 - Deed Notice between property owner and DOE
 - Easement between property owner and a state
- **When enforcement is required with a private party, U.S. Department of Justice represents DOE in any legal proceedings.**



Conclusions



- Institutional Controls are vital to LM's mission.
- ICs are Implemented with a tailored and layered approach
- Start with the end in mind.
- Continuous Improvement is incorporated through the inspection and validation process.

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