



Reflections from DOE Sites on Implementing EMS 15 Years of Best Practices

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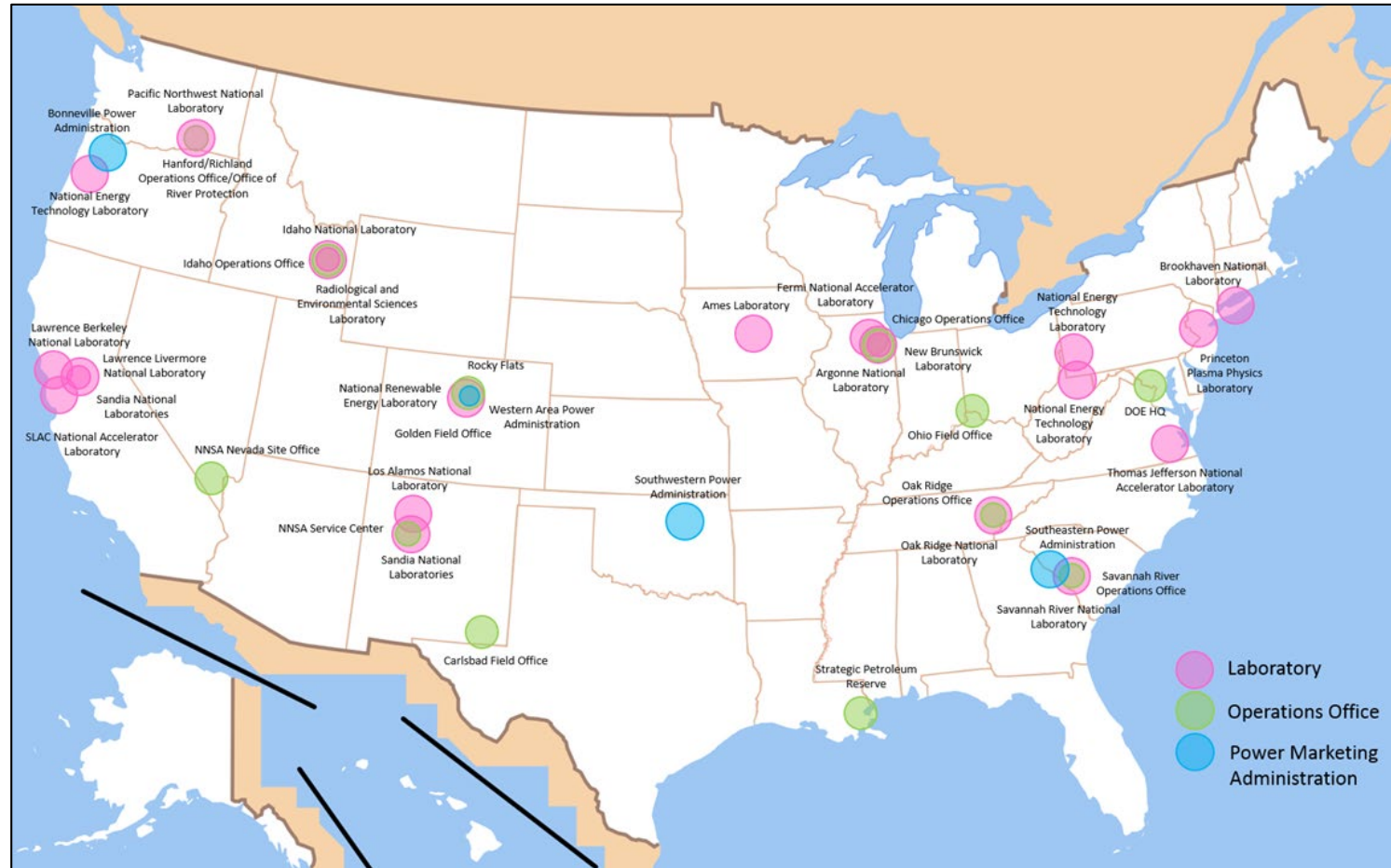
U.S. Department of Energy (DOE)

Office of Sustainable Environmental Stewardship





DOE Locations



Adapted from https://commons.wikimedia.org/wiki/File:Map_of_USA_without_state_ad.png



DOE Use of EMS and ISO 14001

- Since 2005, all DOE sites have had an ISO 14001-compliant Environmental Management System (EMS) in place
- DOE Order 436.1, *Departmental Sustainability* (2011)
 - “DOE sites must use EMS(s) as a platform for [Site Sustainability Plan] implementation and programs with objectives and measurable targets that contribute to the Department meeting its sustainability goals.”
- AU21-16-N1-0050 Memorandum for Distribution: *Departmental Use of Environmental Management Systems* (2017)
 - Clarifies EMS implementation and maintenance, in the absence of affirmative federal guidance



DOE Site Best Practices

- Placeholder – the sites will present and then I will present the rest of the slides in this deck.



DOE Office of Legacy Management

- Responsible for ensuring DOE's post-closure responsibilities are met



Sites in LM Requiring LTS&M (as of March 31, 2019)						Site Category	
CERCLA/RCRA	D&D	FUSRAP	MED/AEC Legacy Site	Nevada Offsites		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	Category 3 activities typically include operation and maintenance of active remedial action systems, routine inspection (any site visit needed to verify the integrity of engineered or institutional barriers) and monitoring/maintenance, records-related activities, and stakeholder support D/P = Disposal/Processing DR = Decommissioned Reactor
NWPA	Plowshare/Vella Uniform Program	State Water Quality Standards	UMTRCA Title I	UMTRCA Title II			



Legacy Management Challenges

- Large number of dispersed sites with varying activities
 - 94 sites in 28 states and Puerto Rico; expecting to receive approximately 32 additional sites by 2028
 - Complexity is added because regulations vary between regions, states, and tribes
 - Complexity is added because physical conditions and the climate vary from site to site
- Small work force distributed across 10 offices in 8 states
- As new sites and scope are added, LM evaluates and monitors compliance requirements, sustainability goals, and related funding and then adjusts its EMS accordingly
- Achieving sustainability goals is an ongoing challenge
 - Recent mission expansion will increase the LM activities that are subject to the sustainability goals
 - Timely collection, evaluation, and reporting of data from many sites



Legacy Management Best Practices

- Solution: one enterprise-wide EMS that covers all sites and offices
 - Compels use of virtual teams for most functions
 - As new sites and scope are added, LM evaluates and monitors compliance requirements, sustainability goals, and related funding and then adapts its EMS accordingly
- Benefits:
 - Use of team members from multiple functional areas and staffed sites improves overall breadth and depth of operational knowledge and efficiencies
 - Reduces time and materials and increases cost savings when developing, reviewing, and issuing programmatic reports covering all sites
 - Allows for implementing sustainability projects at the sites that would allow us to achieve the goals most cost-effectively



Questions

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Additional Information



Legacy Management Best Practices (continued)

- Solution: Developed/implemented a joint system between LM and Contractor
 - Collaboratively maintain the EMS
- Benefits:
 - Improves effectiveness through sound management with support from both sides
 - Allows response to changing circumstances and quick adaptation of the EMS
 - Reduces time and materials and increases cost savings when developing, reviewing, and issuing joint manuals, as well as conducting audits and assessments
 - Increases communications leading to better understanding of work scope, planning, roles, responsibilities, and authorities



Legacy Management Best Practices (continued)

- Leadership (collaboration between LM and contractor senior management)
 - Jointly signed *Workforce Environment, Safety, and Health Posture*
 - Approve over-arching manuals and reports
 - Participate in Management Review and evaluate the EMS
- Integration into business operations
 - The Contractor's Environmental Compliance Group is integrated into program/project implementation to ensure activities are performed with the highest degree of environmental protection and safety in mind
 - Established an *Environmental Review Form* to identify potential environmental impacts and concerns of proposed actions earlier in the work planning process
 - Conducts site inspections to identify changing conditions early and, if necessary, act to ensure protection of human health and the environment



Legacy Management Best Practices (continued)

- Communications
 - Regularly meets with stakeholders to provide status updates on sites
 - Enhances transparency
 - Improves external communication
 - 71 public meetings in the past year
 - Post-programmatic information and reports on the LM website
 - Site Sustainability Plans, Annual Site Environmental Reports (ASER), EMS/Facility Reports
 - Program Update newsletter sent to more than 14,000 stakeholders quarterly
- Training
 - New EMS team members are given a welcome package to assist with initial learning of their roles, responsibilities, and the EMS
- Management Review
 - Distribute materials quarterly and hold an annual meeting (trends and cumulative information) for review and evaluation