



Report to the Chairman, Subcommittee
on Energy and Water Development,
Committee on Appropriations, U.S.
Senate

February 2015

DOE REAL PROPERTY

Better Data and a More Proactive Approach Needed to Facilitate Property Disposal

Accessible Version

GAO Highlights

Highlights of [GAO-15-305](#), a report to the Chairman, Subcommittee on Energy and Water Development, Committee on Appropriations, U.S. Senate

Why GAO Did This Study

Disposing of properties that are excess to DOE's current and future needs is complicated because many are contaminated as a result of their use supporting nuclear weapons development and nuclear energy research. As part of this disposal, DOE's EM oversees the environmental cleanup and for facilities, their D&D. GAO was asked to examine DOE's management of the disposal of these types of properties.

This report (1) describes the facilities for which EM completed D&D from 2003 through 2013, (2) assesses DOE's management of the disposal of EM properties, and (3) identifies challenges DOE faced in disposing of these properties and actions taken to address those challenges. GAO analyzed DOE data, reviewed relevant policies and guidance on real property management, and interviewed DOE officials at headquarters and at seven DOE sites selected to represent a variety of sizes, locations, and experiences with property disposal. GAO also interviewed stakeholders from CROs and local governments.

What GAO Recommends

GAO recommends that DOE (1) take steps to ensure its data systems provide timely and complete data that support sound decision making and (2) develop and document an approach to property transfer—including roles and responsibilities—consistent with DOE's policy to identify and transfer properties for economic development purposes. DOE concurred with GAO's recommendations and identified steps it plans to take to implement them.

View [GAO-15-305](#). For more information, contact David J. Wise at (202) 512-2834 or wised@gao.gov.

February 2015

DOE REAL PROPERTY

Better Data and a More Proactive Approach Needed to Facilitate Property Disposal

What GAO Found

From 2003 through 2013, the Department of Energy's (DOE) Office of Environmental Management (EM)—the office responsible for the deactivation and decommissioning (D&D) of the agency's contaminated facilities—disposed of nearly 2,000 facilities across 19 sites in 13 states, according to EM data. The majority of these facilities were disposed of through demolition because of their contamination levels. During this time, EM also disposed of a limited number of uncontaminated facilities and land parcels through transfer by sale. EM transferred by sale 21 properties—13 facilities and 8 land parcels—at the Oak Ridge Reservation in Oak Ridge, Tennessee to a community reuse organization (CRO)—an organization whose purpose is to facilitate the reuse of unneeded DOE properties—and the local government.

DOE's ability to manage its decentralized property-disposal process is impeded by data limitations and an unclear policy. DOE and EM each maintain a database that contains information on facilities that are undergoing or have completed D&D. However, neither system collects all the information DOE officials would need to effectively manage this subgroup of its real property portfolio, such as when D&D of a facility started or was completed. In addition, DOE's database, which serves as the agency's source of information on all real property holdings, is not always timely or complete, a shortcoming that limits the value to officials as a source of information for decision making. Furthermore, although DOE's policy requires that excess real properties appropriate for transfer for economic development purposes be identified and disposed of, it does not identify what entity is responsible for these tasks or when it should identify such properties. As a result, almost none of the officials GAO interviewed at headquarters and at the site-level was proactively or systematically identifying or disposing of these properties. Consequently, DOE may be forgoing opportunities to reduce its overall footprint and achieve efficiencies in the disposal process.

DOE officials at headquarters and the selected sites as well as stakeholders—representatives of CROs and local governments—identified several challenges to disposing of EM properties for reuse, including:

- Facilities' characteristics, such as unique construction for a specific purpose, can limit reuse potential.
- Facilities may require significant renovation prior to reuse due to their age and condition.
- Properties located within the boundaries of secure sites may pose security concerns, making selling or leasing properties difficult.
- Property disposal processes are lengthy and may limit reuse.

EM and DOE have taken some actions, such as instituting more flexible cleanup processes, to accelerate D&D and to develop strategies to improve the property disposal process. In addition, at one site, EM transferred properties by sale to the CRO and reported using the cost savings to direct additional funds to D&D, a step that in turn, accelerated the cleanup of the remaining facilities. DOE also established a task force in 2011 that provided sites an opportunity to share information about ways to improve property disposal processes and timelines.

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Abbreviations

AEA	Atomic Energy Act of 1954
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRO	community reuse organization
D&D	deactivation and decommissioning
DOE	Department of Energy
EM	Office of Environmental Management
ETTP	East Tennessee Technology Park
FIMS	Facilities Information Management System
FRPP	Federal Real Property Profile
GSA	General Services Administration
IPABS	Integrated Planning, Accountability, and Budgeting System
NDAA	National Defense Authorization Act for Fiscal Year 1998
NNSA	National Nuclear Security Administration
RCRA	Resource Conservation and Recovery Act

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February 25, 2015

The Honorable Lamar Alexander
Chairman
Subcommittee on Energy and Water Development
Committee on Appropriations
United States Senate

Dear Mr. Chairman:

In fiscal year 2012, the Department of Energy (DOE) reported that it held approximately 1,000 excess facilities totaling 13.7 million square feet. In addition, DOE holds land that may be excess to DOE's current and future mission needs. We have long noted problems with the federal government's management of its real property portfolio and have designated federal real property management as a high-risk area.¹ One area of particular concern is that the government maintains costly excess properties that are no longer needed because of significant changes in the size and mission needs of federal agencies. Even with long-standing efforts to improve the management of excess properties, federal agencies continue to face many of the same challenges that we have reported for over a decade. For example, property disposal costs can outweigh the financial benefits of property disposal. In addition, legal requirements—such as those related to the environment—can make the disposal process lengthy. In holding these properties—facilities and land—the government forgoes potential revenue from sale proceeds or savings from reduced maintenance costs. Even in those cases where costs to the government are negligible—for vacant land parcels, for example—it is possible that property could be disposed of through the process of transferring it by sale or lease to the surrounding community and used for economic development purposes. For DOE, however, disposing of these properties, by demolition² or transfer by sale or lease, is complicated in part because many are highly contaminated as a result of their use in supporting the development of nuclear weapons and nuclear energy

¹GAO, *High Risk Series: An Update*, [GAO-15-290](#) (Washington, D.C.: February 2015).

²When a facility is demolished, DOE only disposes of the structure. There is no transfer of ownership and the government remains responsible for the land on which that facility was built.

research. As part of their disposal, DOE's Office of Environmental Management (EM) becomes responsible for these properties and oversees their environmental cleanup; for facilities, that cleanup process is referred to as deactivation and decommissioning (D&D).³

You asked us to examine issues related to DOE's disposal of excess properties that were EM's responsibility, particularly those facilities that have required D&D. This report (1) describes the number and characteristics of facilities for which EM completed D&D from 2003 through 2013, (2) assesses DOE's management of the disposal of properties that were EM's responsibility, and (3) identifies the challenges DOE faced in disposing of these properties and actions it has taken to address those challenges.

To determine the number and characteristics of facilities for which D&D was completed, we obtained and analyzed DOE and EM data about the size, location, and disposal method of the facilities for which D&D was completed from 2003 through 2013.⁴ We interviewed DOE and EM officials about the completeness and limitations of the data. We determined that the data were sufficiently reliable to use, in concert with other sources, to describe the size, location, and disposal method of the facilities of interest. We also collected information from DOE to describe the number and location of properties that have been disposed of through transfer by sale for reuse and reviewed relevant laws and regulations. To assess DOE's management of the disposal of facilities and land for which EM was responsible, we reviewed relevant DOE policies and processes on real property management and compared those processes against DOE's guidance and our standards for internal control in the federal government.⁵ We also interviewed DOE officials at headquarters and

³EM is responsible for the D&D of process-contaminated facilities—facilities with chemical or radioactive contamination resulting from the operations and processes of that facility's mission. For the purposes of this report, we refer to process-contaminated facilities as contaminated facilities. In addition to facilities that require D&D, EM is responsible for the disposal of some uncontaminated facilities and land at certain DOE sites. As the same disposal processes typically apply to those properties, we also assessed DOE's management of their disposal.

⁴Facilities include buildings, trailers, and other structures, as well as site utility systems used to generate or distribute services such as heat, electricity, sewage, gas, and water.

⁵GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

seven sites, four of which we visited in person, about their property disposal practices. We selected the sites to provide variation in attributes, including size, location, whether they were “closure” or “non-closure” sites,⁶ and the extent to which the site’s property had been transferred for reuse. Observations made from these sites are not generalizable to all DOE properties; rather, they provide specific, detailed examples of issues that were described in general terms by agency officials. To determine challenges DOE faced in disposing of facilities that were EM’s responsibility and actions to address those challenges, we interviewed DOE officials at headquarters and the seven selected sites. We also interviewed stakeholders—representatives of six community reuse organizations (CRO), which are the primary non-federal recipients of these properties, representatives of an organization that represents multiple CROs, and officials from two local governments that acquired DOE properties—about challenges to reusing DOE property.⁷ See appendix I for more detailed information on our scope and methodology.

We conducted this performance audit from March 2014 to February 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

DOE established EM in 1989 to address the environmental legacy of 50 years of nuclear weapons production and government-sponsored nuclear energy research. The office is responsible for the cleanup of large amounts of radioactive wastes, spent nuclear fuel, excess plutonium and uranium, and contaminated soil and groundwater, as well as for the D&D of thousands of excess contaminated facilities. Excess facilities are those deemed by DOE program offices such as the Office of Science or the

⁶“Closure” sites are those sites where DOE’s active mission has ceased and DOE is conducting D&D or other cleanup activities. “Non-closure” sites are those sites where DOE’s active mission continues.

⁷The focus of this report was DOE’s management of the disposal of facilities that required D&D. We did not assess or examine DOE’s management of the D&D process itself in this report. For example, we did not assess the process or DOE’s decision making regarding the prioritization of individual D&D projects.

Office of Nuclear Energy, or the National Nuclear Security Administration (NNSA), a separately organized agency within DOE, as not required to support respective program missions and by DOE as excess to the agency's needs.⁸ EM may be responsible for the disposal of an entire site or of one or more facilities on a site managed by another program office or NNSA. For example, at the Mound Site in Miamisburg, Ohio, where DOE's active mission had ceased, EM was responsible for disposing of the entire site, including the uncontaminated facilities that did not require D&D. On the other hand, at sites where DOE still has an active mission, such as the Los Alamos National Laboratory site in Los Alamos, New Mexico, managed by NNSA, EM is responsible for disposing of individual excess contaminated facilities.⁹

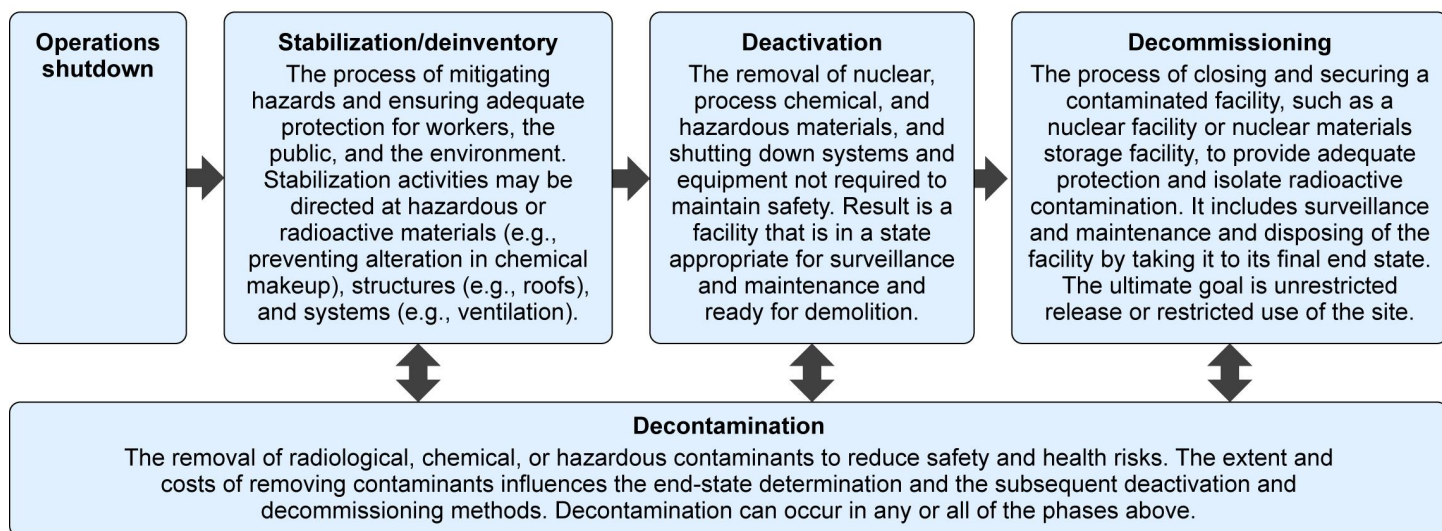
The D&D process encompasses the many stages of taking a facility to its final end-state (see fig. 1). As such, disposal is one of the last steps in the D&D process. Some of the initial steps in the process—operations shutdown and stabilization, for example—may be completed before EM takes responsibility for the facility. For example, NNSA may stabilize a facility while it waits for EM to accept it.¹⁰ The D&D process can take from several months to several years to complete.

⁸As described in table 1 below, DOE has authority to dispose of some real property, including the property within the scope of this report. According to DOE officials, DOE is not required to report to the General Services Administration—the government agency typically responsible for the disposal of federal real property—property disposed of under DOE's disposal authority.

⁹According to DOE officials, EM is expected to establish a field office at the Los Alamos National Laboratory site during fiscal year 2015.

¹⁰For the 12 years of EM's existence, certain excess DOE facilities—and, in some cases, entire sites—were transferred to EM as a general policy, whether contaminated or not. However, in 2001, EM stopped accepting facilities from other program offices because the initial influx created a large backlog of facilities that required D&D. According to DOE officials, this action allowed DOE to better manage its D&D commitments and life-cycle costs. As a result of EM's suspension of acceptance of facilities, a facility that requires D&D may remain the responsibility of other program offices for years before EM accepts it to begin D&D work. GAO is currently examining the process for transferring facilities from NNSA to EM for D&D.




Figure 1: Department of Energy’s Deactivation and Decommissioning Process



Source: GAO. | GAO-15-305

The potential end-states of facilities that require D&D include demolition, entombment, and reuse (see fig. 2). In *demolition*, all structures and waste are removed, and the facility is demolished. The land underneath the facility may be remediated to *brownfield*, in which it is suitable for limited, controlled, or industrial uses; or to *greenfield*, in which it is suitable for unlimited reuse. *Entombment*, also referred to as in-situ decommissioning, takes advantage of the facility’s structure as a containment mechanism to ensure chemicals and reactive wastes are encapsulated. For facilities that may be *reused*, contaminated systems are removed and structural materials are decontaminated, but the building remains and may be disposed of by transfer.

Figure 2: Department of Energy (DOE) Facilities in Selected End-States

Demolition	Entombment	Reuse
 <p>Demolished Heavy Water Components Test Reactor at the Savannah River Site with a concrete slab covering its footprint as an environmental protection measure.</p>	 <p>Entombment of a reactor at the Savannah River Site. Underground and interior components were filled with a specially developed grout to prevent contamination in the surrounding area.</p>	 <p>The T-Building is a formerly contaminated facility at the Mound Site. The facility, a two-story bunker with 16-foot thick walls, had been used by DOE to process radioactive materials for nuclear weapons. It is currently available for reuse.</p>

Source: GAO. | GAO-15-305

EM must clean up radioactive and hazardous substances in accordance with specified standards and regulatory requirements under federal environmental laws, such as the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA) and the Resource Conservation and Recovery Act (RCRA), as well as state laws.¹¹ Environmental Protection Agency officials, as well as officials with environmental agencies in the states where EM sites are located, enforce applicable federal and state environmental laws and oversee and advise EM on its cleanup efforts. In some circumstances, tribal nations, community groups, and the public provide input into cleanup decisions.

¹¹CERCLA requires EM to evaluate the nature and extent of contamination at the sites and determine what cleanup remedies, if any, are necessary to protect human health and the environment into the future. Under the CERCLA process, EM analyzes proposed remedial action alternatives according to established criteria, invites and considers public comment, and prepares a Record of Decision that documents the selected agency action. RCRA governs the treatment, storage, and disposal of hazardous waste and the non-radioactive hazardous waste component of mixed waste, and requires EM to conduct a variety of assessments and monitoring activities.

To dispose of real property—facilities and land—with reuse potential, DOE may engage the General Services Administration (GSA) or, under certain conditions, exercise its own authorities to transfer the property by sale, lease, or other mechanism to a new owner (see table 1). The Atomic Energy Act (AEA) of 1954 authorizes DOE to sell, lease, and dispose of property.¹² The National Defense Authorization Act for Fiscal Year 1998 (NDAA) required DOE to promulgate regulations for a process of transferring by sale or lease defense nuclear facilities for the purpose of economic development of the property.¹³ The NDAA also authorized DOE to offer indemnification—protection against claims of injury resulting from the release or threatened release of hazardous substances—to the transferee. Other statutory provisions, referred to by DOE as “special” or “specific” legislation, also authorize the disposition of DOE’s real property at specific sites. For example, DOE was required to convey to the County of Los Alamos certain properties at the Los Alamos National Laboratory, as well as transfer to the Secretary of the Interior, in trust for the Pueblo de San Ildefonso, administrative jurisdiction over certain parcels of land without compensation.¹⁴

¹²Pub. L. No. 83-703, § 161(g) (1954), codified at 42 U.S.C. § 2201(g).

¹³Pub. L. No. 105-85, § 3158 (1997).

¹⁴Pub. L. No. 105-119, § 632 (1997). According to DOE officials, pursuant to the law, DOE developed a list of properties suitable for conveyance and most of those have been transferred. Those that have not include an area that requires environmental cleanup prior to transfer.

Table 1: Select Legal Authorities Available to the Department of Energy (DOE) for the Disposal of Real Property

Authority	Summary
Federal Property and Administrative Services Act of 1949, as amended	Each federal agency will report excess real property under its control to the General Services Administration (GSA). DOE would report facilities that require deactivation and decommissioning (D&D) as “excess” to GSA after the D&D process has been completed. Property disposed of by GSA follows a process that includes screening for use by other federal agencies, by homeless assistance providers, and for public uses or negotiated sale to public entities, before being offered for competitive sale.
Atomic Energy Act (AEA) of 1954	DOE, under authority originally granted to its precursor—the Atomic Energy Commission—is authorized to sell, lease, grant, and dispose of real property. DOE has interpreted the authority to extend to property that was acquired, used, or disposed of in connection with carrying out the objectives of AEA. The National Defense Authorization Act for Fiscal Year 1998 (NDAA) required DOE to promulgate regulations governing the process for completing disposals through transfers by sale or lease of defense nuclear facilities for the purpose of permitting economic development of the property. Additionally, the NDAA authorized DOE to offer indemnification—protections against claims that result from the release or threatened release of hazardous substances.
Atomic Energy Community Act of 1955	DOE is authorized under certain terms and conditions to transfer real property directly to private owners within the communities of Oak Ridge, Tennessee; Richland, Washington; and Los Alamos, New Mexico that were owned and managed by the Atomic Energy Commission. According to DOE, this authority has not recently been used to dispose of real property.

Source: GAO analysis of DOE disposal authorities. | GAO-15-305

The primary non-federal recipients of properties for which EM was responsible are CROs, though some local governments have also received EM property. To minimize the negative social and economic impacts of the downsizing and closure of DOE sites, DOE is required to develop a plan for restructuring the workforce at those sites in consultation with various stakeholders such as community groups in affected areas.¹⁵ DOE encouraged the affected communities to participate through the creation of CROs which can receive assistance from DOE for programs that mitigate the impacts of DOE’s workforce restructuring. The principal purpose of the CROs is to facilitate the reuse of former defense nuclear facilities and other unneeded property for industrial, economic, commercial, or civic purposes. Today there are eight active CROs, six of which are pursuing or are interested in pursuing real property transfers at DOE sites (see table 2).

¹⁵National Defense Authorization Act for Fiscal Year 1993, Pub. L. No. 102-484, § 3161 (1992).

Table 2: Active Community Reuse Organizations (CRO) and Associated Department of Energy (DOE) Site, 2014

CRO	DOE site
Tri-City Development Council	Hanford (Richland, Washington)
Mound Development Corporation	Mound (Miamisburg, Ohio)
Community Reuse Organization of East Tennessee	Oak Ridge Reservation (Oak Ridge, Tennessee)
Southern Ohio Diversification Initiative	Portsmouth (Piketon, Ohio)
Paducah Area Community Reuse Organization	Paducah (Paducah, Kentucky)
Savannah River Site Community Reuse Organization	Savannah River (Aiken, South Carolina)

Source: DOE. | GAO-15-305

Note: In addition to the above, there are active CROs associated with the Idaho National Laboratory (Idaho Falls, Idaho) and the Los Alamos National Laboratory (Los Alamos, New Mexico). However, the former does not currently plan to pursue real property transfers by sale or lease and the latter has been uninvolved in property transfers at the site as those that have taken place were completed under special legislative authorities.

The Vast Majority of the Nearly 2,000 Facilities for Which EM Completed D&D Were Demolished

From 2003 through 2013, Most Facilities That Completed D&D Were Demolished Because They Were Highly Contaminated

According to EM data, from 2003 through 2013 EM disposed of 1,962 facilities across 19 sites in 13 states (see fig. 3). These data includes all facilities—those that were contaminated and went through the D&D process as well as uncontaminated facilities—EM disposed of through demolition, entombment, sale or lease for reuse, or other means.¹⁶

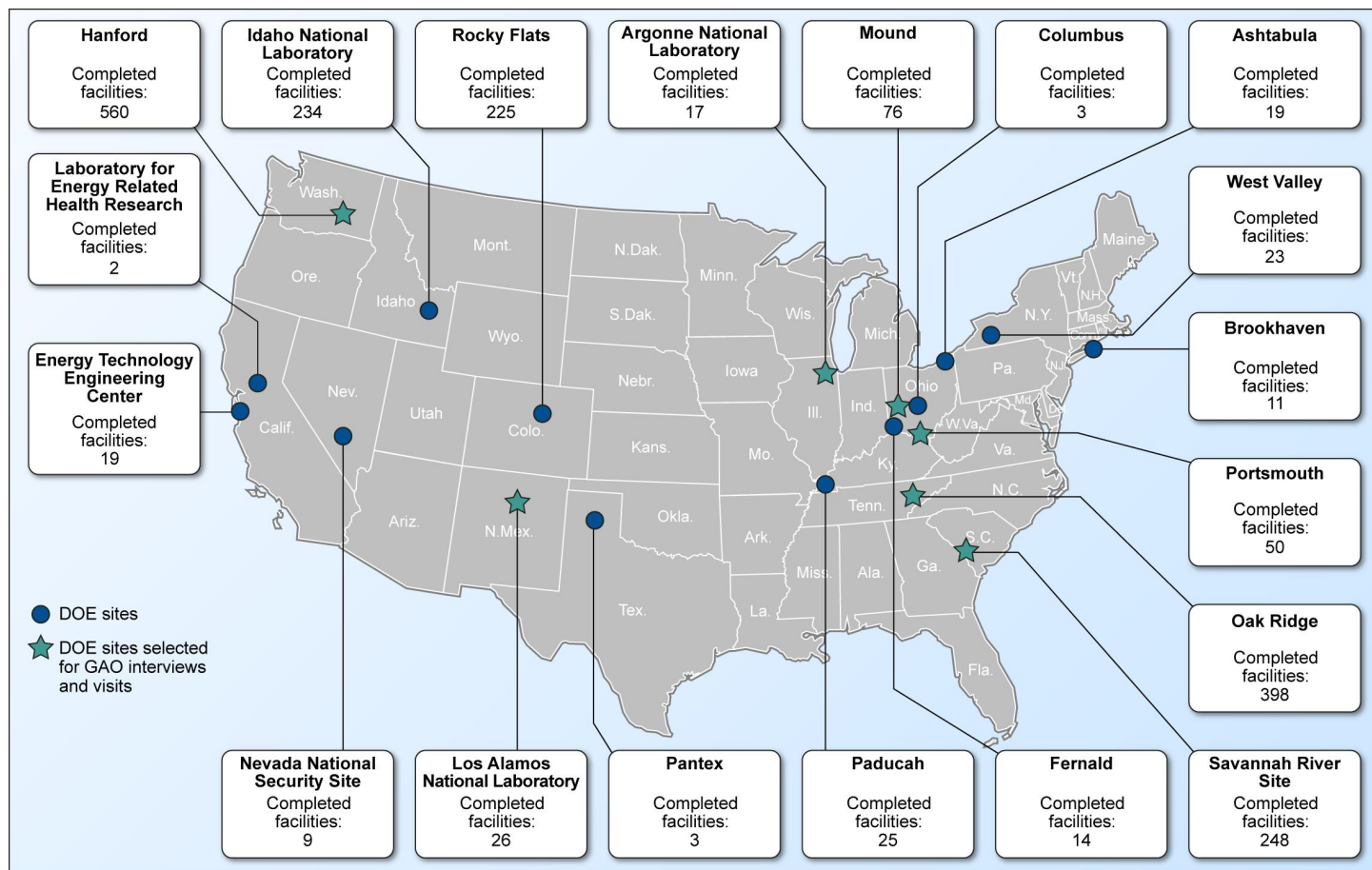
¹⁶Some facilities for which EM completed D&D were located on sites not owned by the federal government, but were used to support DOE activities. For example, DOE completed the D&D of 19 facilities at the Energy Technology Engineering Center site in California where DOE leased property from a private entity for government-sponsored activities.

Approximately 85 percent¹⁷ of those facilities were located at 5 sites: the Hanford Site in Washington (29 percent); the Oak Ridge Reservation in Tennessee (20 percent); the Savannah River Site (13 percent) in South Carolina; the Idaho National Laboratory in Idaho (12 percent); and Rocky Flats in Colorado (12 percent). EM is also responsible for completing the disposition of approximately 2,900 additional facilities across 9 of the 19 sites. Approximately two-thirds of the facilities remaining are located at two sites—the Hanford Site (38 percent) and the Savannah River Site (28 percent). By the end of fiscal year 2015, EM projects that it will have completed the disposition of approximately half of the facilities for which it accepted responsibility as of 2001.¹⁸

¹⁷Numbers do not sum due to rounding.

¹⁸As previously mentioned, in 2001, EM stopped accepting facilities from other program offices. EM had projected that it would begin assuming responsibility for facilities requiring D&D again by fiscal year 2017; however, that date has been pushed out to 2030 due to funding constraints.

Figure 3: Number and Location of Facilities of Which the Department of Energy's (DOE) Office of Environmental Management Completed Disposal, 2003 through 2013



Sources: DOE and Map Resources. | GAO-15-305

According to DOE data, more than 94 percent of facilities—totaling more than 19.6 million square feet—for which EM completed D&D from 2003 through 2013 were demolished.¹⁹ The remaining facilities were disposed

¹⁹As we will discuss later in this report, DOE's database of information on real property does not indicate whether D&D was completed. DOE identified for us facilities that had completed D&D by identifying those facilities for which EM had initiated D&D and were disposed of in a subsequent year. For additional information on our methodologies, see appendix I.

of through other mechanisms such as transfer to federal entities or sale to local governments. Disposed facilities can also show statuses that reflect other means of disposition, such as by entombment. As we will discuss later in this report, DOE and EM maintain separate databases with information on facilities for which D&D was completed. DOE's data contain information on the disposal method that is not captured in EM data, but does not have records for a number of facilities that completed D&D over this time period. As a result, information presented in this report about disposal methods is for the 1,347 facilities DOE identified from its data as having completed decommissioning from 2003 through 2013. Nevertheless, according to EM officials, the vast majority of facilities for which D&D was completed were demolished because they were highly contaminated. EM officials as well as representatives from CROs we interviewed told us that reusing facilities that required D&D was either not possible or highly impractical due to high contamination levels and poor condition. For example, EM officials at the Oak Ridge Reservation initially identified facilities for reuse that they later determined should be demolished. In addition, according to DOE officials, most of DOE's excess contaminated facilities are between 40 and 60 years old, have had few, if any, upgrades since their construction, and are not conducive to being remodeled for alternate uses. For example, one CRO representative said it can be challenging to justify the high costs of upgrading a facility's infrastructure to make it usable, while another concluded that the difficulties involved in redeveloping some properties made reusing them not cost-effective.

EM Transferred by Sale a Limited Number of Uncontaminated Facilities and Land Parcels for Reuse

EM completed 21 property disposals through the process of transfer by sale from 2003 through 2013, at no cost and with the provision of indemnification.^{20,21} According to EM officials, from 2003 through 2013, 13 facilities totaling more than 331,000 square feet were transferred by sale from the Oak Ridge Reservation in Oak Ridge, Tennessee to the CRO or local government for economic development. (See appendix III for information on completed facility transfers identified by EM.) None of the facilities, which had been used for a variety of purposes including office buildings and a warehouse, was contaminated and as a result did not require D&D. For example, in addition to transferring 6 office buildings totaling approximately 200,000 square feet to the CRO for reuse as commercial office buildings, EM transferred to the City of Oak Ridge a water treatment plant, which provides potable water and sewer services to the East Tennessee Technology Park (ETTP)—an area of the Oak Ridge Reservation that DOE designated for commercial reuse and set aside for redevelopment. EM was responsible for disposing of these 13 facilities because they were located at ETTP.

According to DOE officials and CRO representatives, land held by DOE, particularly uncontaminated land on or near buffer areas—large areas of land meant to protect the public from hazardous incidents—generally has more reuse potential than facilities or land located in operational areas on sites being used to support DOE missions. According to EM officials, from 2003 through 2013, DOE transferred by sale 8 land parcels totaling approximately 659 acres to non-federal entities for economic development. Again, all 8 were located at ETTP which accounts for approximately 2,200 acres of the approximately 34,000 acre Oak Ridge Reservation and sits just inside its borders. ETTP can be accessed via a

²⁰As previously mentioned, to dispose of real property—facilities and land—DOE may engage GSA or, under certain conditions, exercise its own authorities to transfer the property by sale, lease, or other mechanism to a new owner. In certain cases, when DOE disposes of property for the purpose of economic development, DOE may transfer property by sale for less than fair market value, and in these cases, DOE has determined that the appropriate sale price was \$0. 10 C.F.R. § 770.8.

²¹The property transfer numbers provided by EM did not include certain property transfers, including, for example, more than 45 acres of land at the Los Alamos National Laboratory site that was transferred in 2005 pursuant to the site-specific transfer authority that applies to Los Alamos National Laboratory. See Pub. L. No. 105-119, § 632 (1997). Nor do they include property transferred at the Mound Site, the terms of which were agreed upon prior to 2003.

public road. (See appendix III for information on completed land transfers identified by EM).

Data Limitations and an Unclear Policy Impede DOE's Ability to Effectively Manage Its Decentralized Property Disposal Process

DOE Does Not have Timely and Complete Data to Oversee Its Property Disposal Process

Limitations in its data on facilities that are undergoing or have completed D&D may impede DOE's ability to effectively manage its real property assets, including their disposal. DOE and EM each maintain a database that contains information on facilities that are undergoing or have completed D&D. However, neither system collects all the information DOE would need to effectively manage this subgroup of its real property portfolio. Furthermore, the information that is collected is not always timely and complete—data characteristics that we have previously found necessary for successful asset management and sound decision making.²² According to internal controls standards, only appropriate, complete, relevant, and timely data can help the agency make informed decisions regarding the allocation of resources and effectively manage its assets.²³

The Facilities Information Management System (FIMS) is DOE's central database for managing its real property inventory. It includes information on a facility's size, location, annual maintenance costs, operating status, and, for those facilities for which D&D has been completed, the facility's end-state—for example, whether the facility was demolished, transferred to another federal agency, or sold. FIMS is used to prepare DOE's

²²GAO, *Executive Guide: Leading Practices in Capital Decision-Making*, [GAO/AIMD-99-32](#) (Washington, D.C.: December 1998).

²³[GAO-14-704G](#).

submission to the Federal Real Property Profile (FRPP)—the federal government’s database that was developed to describe the nature, use, and extent of federal real property holdings.²⁴ In addition, according to DOE policy, officials are to use FIMS data in day-to-day decision making to support DOE’s short- and long-term strategic goals. However, according to one DOE official, FIMS’s primary function is as an inventory of DOE’s property holdings and it is used, for example, to assess DOE’s position with regard to the Freeze the Footprint Initiative and determining how much office or warehouse space DOE may acquire or of which it must dispose.²⁵ Officials may not find the data in FIMS support sound decision making, in part, due to the following limitations.

Data are not timely. FIMS data do not provide officials with reliable and up-to-date information on the facilities in DOE’s portfolio, as intended. In particular, while FIMS documents a facility’s status (e.g., whether it is operating, shutdown, etc.), the status codes overlap and do not correspond directly with the steps in the D&D process, such as whether the facility is undergoing deactivation or decommissioning. For example, based on our review of FIMS user guidance and a DOE presentation, during the deactivation phase, one official may categorize a facility under

²⁴In 2004, the President issued an executive order establishing a real property council and directing it to work with GSA to establish and maintain a single, comprehensive database describing the nature, use, and extent of all real property under the custody and control of executive branch agencies, except when otherwise required for reasons of national security. The council developed the FRPP to meet this requirement. Federal Real Property Asset Management, Exec. Order No. 13327, 69 Fed. Reg. 5897 (Feb. 6, 2004). We have previously reported that the council has not ensured that key data elements—including buildings’ utilization, condition, annual operating costs, mission dependency, and value—are defined and reported consistently and accurately, raising concerns that the database is not a useful tool for describing the nature, use, and extent of excess and underutilized federal real property. In 2012, we made recommendations aimed at improving the FRPP, including ensuring that data collection requirements were clearly defined and data reporting was consistent across agencies. Those recommendations still remain unaddressed. GAO, *Federal Real Property: National Strategy and Better Data Needed to Improve Management of Excess and Underutilized Property*, [GAO-12-645](#) (Washington, D.C.: June 20, 2012).

²⁵In May 2012, the Office of Management and Budget issued a memorandum directing agencies to not increase the size of their civilian real-estate inventory, stating that increases in an agency’s total square footage of civilian property must be offset through consolidation, colocation, or disposal of space from the inventory of that agency. In March 2013, the Office of Management and Budget issued a memorandum establishing implementation procedures for the *Freeze the Footprint* policy. This memorandum clarified that agencies were not to increase the total square footage of their domestic office and warehouse inventory compared to a fiscal year 2012 baseline.

the status code “deactivation” while another official might categorize the facility under the broader status of “D&D in progress.” As a result, FIMS may not provide DOE officials with enough information to identify where such facilities are in the D&D process. Furthermore, in the FIMS data we reviewed for facilities for which EM completed D&D, most status codes were outdated. Specifically, approximately 84 percent of the facilities that DOE identified in FIMS as being disposed of after EM completed its D&D had a final status that did not accurately reflect that D&D had taken place. Instead, those records indicated that the facilities were being deactivated or were shutdown for the purpose of eventual D&D.²⁶ In those cases, decision makers using FIMS would not have accurate, reliable, or timely information about the status of those facilities. DOE’s policy on asset management states that FIMS data must be maintained as complete and current throughout the life cycle of a real property asset, but according to DOE officials, FIMS data are often only updated as necessary to support the agency’s annual FRPP submission. With regard to updating status information, those officials explained that if EM started and completed D&D of a facility within a single reporting year, FIMS may never indicate that D&D of the facility was underway. Instead, FIMS would likely indicate that the facility was awaiting D&D and then demolished. In April 2014, the DOE Inspector General similarly found that sites were only adhering to the minimal FIMS requirement of validating data annually or on an as-requested basis by DOE throughout the fiscal year.²⁷ As a result, FIMS may only provide decision makers with a snapshot of information on a facility based on the prior year’s data and relying on prior year’s data could impede DOE’s ability to make well-informed real property planning and budgeting decisions.

²⁶There is no status in FIMS to indicate that D&D has been completed. Instead, a facility would be categorized as “D&D in Progress,” indicating that it is undergoing D&D, and then the record would be archived, indicating that DOE disposed of the property and thus implying that the D&D process had been completed. However, in the data we reviewed the final status for 84 percent of the facilities was something other than “D&D in Progress.”

²⁷The Inspector General did not make any recommendations because DOE was undertaking a review and validation process related to FIMS data at the time; however, the Inspector General did note that given the importance of realizing planned cost savings and the magnitude of DOE’s real property assets, the relevant offices should remain vigilant to ensure the accuracy of real property data in its FIMS system. DOE Office of the Inspector General, *Department of Energy’s Management of Unneeded Real Estate*, OAS-L-14-07 (Washington, D.C.: Apr. 14, 2014).

In addition, FIMS does not contain certain key information that DOE officials at headquarters may find useful to provide real property management oversight of facilities that require D&D. For example, FIMS does not contain information on when EM assumed responsibility for the facility, started D&D, completed D&D, or started disposal activities. According to DOE officials, FIMS was not created to and does not function as a D&D management tool. Rather, it is a property management tool and additional information is not collected because it is not required to support the agency's FRPP submission. Nevertheless, according to one DOE official, such information could provide an added level of insight and a more complete record of the facilities that comprise DOE's real property portfolio. Ready access to information about D&D work across sites could allow DOE officials to better manage real property at an agency level, collect information on timeframes for disposing of contaminated excess properties that might be used to improve management practices, and ensure that real property assets support long-term plans.

Data are not complete. Finally, the information that FIMS should maintain is not always recorded. For example, the system does not contain records for all of the facilities for which EM completed D&D from 2003 through 2013. According to federal regulations, agencies must certify the accuracy of real property information submitted to GSA for the Annual Real Property Inventory program;²⁸ however, according to DOE officials, FIMS does not contain records for all facilities. For example, recent validation efforts found that inventories of facilities were incomplete. Specifically, in 2014, DOE identified facilities at the Hanford and Savannah River Sites—both of which EM is responsible for disposing of in their entirety—which were missing from FIMS.²⁹ Incomplete information about real property holdings impedes DOE's ability to manage its portfolio at a site and agency-wide level.

²⁸The Annual Real Property Inventory program requires federal agencies to submit an annual report of all federally-owned and leased property to the GSA. 41 C.F.R. § 102-84.30.

²⁹In October 2013, DOE issued new validation procedures to identify properties that were not inventoried in FIMS. It was as a result of this effort that DOE learned of facilities at those sites that had not yet been inventoried.

EM maintains a separate database with information on facilities for which it has completed D&D and for which it is currently responsible.³⁰ The Integrated Planning, Accountability, and Budgeting System (IPABS) is EM's system for tracking and maintaining information about its activities. According to EM officials, IPABS is a project management system that tracks work—including D&D—and provides the data for EM's annual performance metrics. Data in IPABS are tracked by project units, which summarize the major characteristics of a cleanup project, including key performance, scope, and cost information. One project unit may include the D&D of one or more facilities on a site, or it may describe non-facility projects, such as the remediation of groundwater. For performance management purposes, IPABS notes how many facilities are in each project unit and when those project units are completed. According to an EM official, IPABS is the most accurate source of information on the number of facilities EM has completed.

However, neither DOE nor EM officials can use IPABS data to gain further insight into the facilities that require D&D or to oversee the property-disposal process because the system does not provide information at a sufficiently granular level to provide a basis for real property decision making. Specifically, IPABS does not contain facility-level information; it does not track the status of work at individual facilities, nor does it maintain information on an individual facility's end-state or expected end-state. This is because IPABS is a project management system and not a property management system. As a result, EM could not tell us definitively how many of the facilities for which it completed D&D from 2003 through 2013 had been demolished, entombed, or made available for reuse. In addition, IPABS could not be used in concert with FIMS to develop a more complete understanding of the status of D&D activities—including disposal—because until 2013, the project units in IPABS did not contain enough detailed information to identify the specific facilities in each unit. Though that information was added for many project units, in order to provide information such as the expected end-state of the facilities that are undergoing D&D, EM officials would still have to manually compile information from IPABS, FIMS, and site-level field reports. In 2010, when EM undertook an effort to provide DOE management with an overview of EM's D&D activities across sites, officials compiled information from these sources, but noted that doing so

³⁰As previously mentioned, EM's system includes contaminated facilities that require D&D and uncontaminated facilities that do not.

was resource intensive and not an efficient way to track a complex program. Without up-to-date information on the status and projected end-states of facilities undergoing D&D, DOE officials may not have a complete understanding of the status of disposal activities and may not be able to make well-informed real property decisions, including those aimed at reducing DOE's overall footprint.

DOE Has Developed Guidance for Property Management but Does Not Have a Proactive Approach to Property Transfer

DOE has a decentralized approach for managing its real property assets. According to DOE officials, each site is unique; even those sites with similar missions are located in different geographic areas and have varying relationships with the surrounding communities. As a result, according to DOE officials, site-level officials are best situated to make many real property decisions. Under this decentralized process, DOE developed a common approach for sites to manage assets agency-wide by issuing an order entitled, *Real Property Asset Management*, ("the Order"), as well as a series of related guides and policy documents.³¹ The Order's objective is to define a consistent and shared approach across sites by establishing the requirements and responsibilities for the individuals and offices involved in real property management. For example, officials at the site-level are responsible for preparing budget requests, declaring property as excess, developing near- and long-term real property plans, and disposing of excess properties. Officials at headquarters are responsible for developing policies and procedures for asset management—from planning to disposition—and for providing oversight of tasks executed at the site level.

The Order also states that excess real properties that are appropriate for economic development transfer must be identified and disposed of; however, the policy is unclear as it does not identify who is responsible for these tasks or when they should identify such properties. We found that almost none of the officials we interviewed at the site-level nor officials at headquarters was proactively or systematically identifying and disposing of these properties. For example, neither all sites we selected nor DOE maintain an inventory of properties suited for economic

³¹DOE, *Real Property Asset Management*, DOE O 430.1B (April 2011). Relevant guidance includes: *Implementation Guide for Surveillance and Maintenance During Facility Transition*, DOE G 430.1-2; *Deactivation Implementation Guide*, DOE G 430.1-3; *Decommissioning Implementation Guide*, DOE G 430.1-4; *U.S. Department of Energy Real Estate Desk Guide*, Revised May 2013; and *Cross-Cut Guidance on Environmental Requirements for DOE Real Property Transfers*, March 2005.

development transfers. Instead, according to DOE and CRO officials, transfers by sale or lease of EM properties that did take place from 2003 through 2013 were generally initiated by the recipient—the CRO or local government. According to DOE officials and CRO representatives we interviewed, the transfer process generally began with an informal inquiry or request from the CRO or local government, at which point site-level officials determined whether the property was appropriate and should be made available for transfer. According to CRO representatives, most have a good working relationship with site-level officials and are relatively knowledgeable about the properties that may be available for transfer; however, this was not the case at all sites. For example, representatives from one CRO described learning that a facility it may have been interested in acquiring was to be demolished only after demolition was underway. Even representatives from CROs who were satisfied with their relationship with DOE officials noted that they have different goals and, as a result, different priorities regarding property disposals and transfers. Specifically, the CROs sought to create economic development opportunities for their communities whereas EM's focus was the cleanup of the contaminated properties for which it was responsible. At times, this has caused frustration on the part of the CROs that have requested that DOE make D&D decisions that support eventual reuse and sought DOE assistance for funding economic impact studies. EM's mission, though, is not to promote economic development at the sites for which it is responsible, but rather to safely clean up the environmental legacy of nuclear weapons and energy production. Furthermore, according to DOE officials, there is no funding available to support the transfer of EM property holdings for economic development purposes. Nevertheless, according to EM officials, they are the appropriate office to work with the CROs given their extended interaction throughout the D&D process.

By not taking a proactive approach to identifying and transferring property that is suitable for economic development purposes, DOE may forgo opportunities to reduce its overall footprint and achieve efficiencies in the disposal process. In particular, given the scope of DOE's real property holdings, it is possible that the land on which demolished facilities were built as well as land that surrounds a site's central campus may be appropriate for sale or lease for the purpose of economic development. For example, according to a representative we interviewed from one CRO, most of the several hundred-square-mile site that his organization is interested in reindustrializing is wilderness and has never been used for

operational purposes.³² In addition, there may be potential for additional economic development transfers as EM continues to D&D facilities and DOE closes sites. Furthermore, if site-level officials proactively identified unneeded land that was appropriate for transfer, they could potentially bundle several land parcels together and conduct the required environmental reviews for larger areas, thus avoiding multiple costly environmental reviews. Officials at one site we visited said that the cost of the necessary environmental reviews DOE must complete prior to transfer was approximately the same regardless of the parcel size, and as a result, bundling land parcels for transfer could be a cost effective approach. However, DOE does not know the extent to which it could decrease its real property holdings through economic development transfers because it has not identified those properties that fit the criteria.

DOE Has Taken Some Actions to Address Property Disposal Challenges

Stakeholders Cited Renovation Costs, Security Restrictions, and Lengthy Processes as Challenges That Limit Property Disposals

DOE officials at headquarters and the site level, CRO representatives, and local government officials we interviewed identified several challenges to disposing of EM properties. For example, DOE officials from headquarters and six of the seven selected sites, as well as four of the nine stakeholders we interviewed reported that limited funding for D&D and, related, long cleanup time frames were challenges to disposing of these properties.³³ We have previously found that when disposition is deferred on excess contaminated facilities, their deterioration results in continued surveillance and increased maintenance costs that can further

³²As we will discuss further in the next section, because of agreements between DOE and state regulators regarding the site's security perimeter, according to site officials there are no plans in the near-term to allow transfers of land on the site. However, the site is not completely closed to the public; annually, members of the public are allowed on the site for purposes including deer and hog hunting.

³³We refer to representatives we interviewed from the six CROs, the organization that represents a coalition of CROs, and representatives from two local governments we interviewed collectively as "stakeholders."

stress already limited budgets.³⁴ In addition, a 2011 EM report found that the longer facilities sit idle, the further they degrade, and the more dangerous and costly they are to maintain or dispose.³⁵ Though these are more directly challenges to completing D&D, they are inextricably linked to property disposal in that disposal is the conclusion of the D&D process.

DOE officials and stakeholders we interviewed also identified several challenges to disposing of EM properties through reuse—some specific to contaminated DOE properties and some that we have identified previously as challenges to property disposal generally across the federal government. For example, DOE officials and stakeholders identified challenges related to the condition of facilities for which EM is responsible and the potential stigma associated with a property at a nuclear site. Officials and stakeholders also noted that the location of the facilities on secure sites can be a challenge for reuse—an issue that we have previously found was an impediment to reuse of excess properties at DOE sites.³⁶ The following are challenges identified by DOE officials and stakeholders we interviewed as potential impediments to reuse of EM properties:

- *Facility characteristics limit reuse potential of some properties.* According to DOE officials at headquarters and all seven of the selected sites, as well as all nine stakeholders we interviewed, facility characteristics limit the reuse potential for some EM facilities. Specifically, many of these facilities were built for a unique purpose and their construction makes reuse for other purposes difficult. For example, the K-31 complex is a 1.5 million-square-foot facility formerly used for uranium enrichment processing at ETTP on the Oak Ridge Reservation (see fig. 4). According to an EM site official, its size and location—accessible via public roads—theoretically make it attractive as a commercial warehouse; however, specialized, densely packed steel support beams needed to support heavy enrichment equipment would make reuse as a warehouse difficult. As such, DOE decided not to pursue reuse options and is in the process of demolishing the

³⁴GAO-12-645 and GAO, *Federal Real Property: Strategic Focus Needed to Help Manage Vast and Diverse Warehouse Portfolio*, GAO-15-41 (Washington, D.C.: Nov. 12, 2014).

³⁵U.S. Department of Energy, Office of Environmental Management, *Facility Deactivation & Decommissioning (D&D): Executive Overview* (June 13, 2011).

³⁶GAO-12-645.

facility. In addition, according to some CRO representatives, EM properties may have limited reuse potential because of the stigma associated with their prior use in developing or housing nuclear or radiological materials. For example, according to one CRO representative, a German manufacturing company that initially expressed interest in land held by DOE later decided it did not want to be associated with a former nuclear site. Similarly, one CRO representative said that financing and insurance for projects in formerly contaminated areas can be difficult to obtain without the protection of indemnification, which can make selling property for reuse challenging.³⁷

Figure 4: The K-31 Complex at the East Tennessee Technology Park, Oak Ridge Reservation, 2014



Source: GAO. | GAO-15-305

³⁷As stated earlier in this report, the NDAA authorizes DOE to extend protections to the transferee against claims based on the release or threatened release of hazardous substances attributed to DOE, referred to as indemnification. Pub. L. No. 105-85, § 3158 (1997).

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- *Facilities require significant renovation prior to reuse.* DOE officials from headquarters, EM officials from six of the seven selected sites, and four of nine stakeholders we interviewed stated that facilities held by EM were generally old, in poor condition, and would require significant renovations prior to reuse. In many cases, facilities would need extensive improvements to meet modern building-code standards. According to one CRO representative, though EM transferred them by sale at no cost, his organization spent more than \$1.5 million on necessary aesthetic and mechanical improvements to four facilities before it could market them to private sector entities. A representative from another CRO also noted that his organization had to renovate the interiors of EM facilities his organization acquired in order to attract commercial tenants.
 - *Selling or leasing properties within the boundaries of secure sites may pose security concerns.* DOE officials from headquarters, EM officials from four selected sites, and three stakeholders reported that security restrictions at some sites reduce opportunities for non-federal entities to reuse both land and facilities. According to EM officials at one site we visited, previous DOE commitments to state environmental regulators stipulated that for security and safety reasons, there would be no modifications to the site's perimeter. As a result, no facilities or land parcels located within the existing fence-line, other than portable structures such as trailers, were suitable for transfer by sale to non-federal entities. Though officials also said while there have been preliminary discussions about the future possibility of moving the fence to allow access to some uncontaminated facilities via public roads—potentially making them available for reuse to non-federal entities—DOE did not foresee doing so in the near future. According to an official from the associated CRO, it was for this reason his organization has not requested any non-portable facilities for transfer and reuse at the site.
 - *Lengthy property-disposal process limits reuse.* According to DOE officials from four of the selected sites and all nine stakeholders we interviewed, the length of the process was a challenge to transferring properties available for economic development purposes. According to EM-provided information, on average, it took 2.8 years between the date when a CRO or local government submitted a formal request for property and when it assumed ownership for the property. Long and uncertain disposal timeframes made it difficult for some CROs to secure tenants. For example, one CRO representative we interviewed reported that he is often unable to give potential tenants a reliable estimate of the time it will take for the CRO to acquire a property. As a

result, some potential commercial partners have lost interest, and the community has lost economic development opportunities. In one instance, the CRO and DOE initially considered approximately 25 facilities to be appropriate for reuse at the outset of the D&D process, but the condition of those facilities deteriorated as they proceeded through D&D, and the companies on whose behalf the CRO had been seeking approximately 8 of those properties sought options elsewhere.

DOE officials and CRO representatives said the length of the transfer process for economic development purposes was related to (1) implementation of environmental requirements and (2) reviews by DOE headquarters of the conditions of proposed transfers by sale or lease. Before a property can be disposed of, certain environmental reviews and radiological surveys must be completed, certifying the safety of the property for reuse. According to three stakeholders we interviewed, the steps involved in meeting environmental requirements contribute to the length of the transfer process. In particular, the scope of cleanup analysis is determined by the intended use of the site—for example, whether the site will be used for industrial or residential purposes. Completing these reviews can be difficult, particularly if the future use of the site is unknown. According to one CRO representative we interviewed, the organization's request to lease DOE property for economic development did not advance due in part to difficulties in negotiations with DOE over the scope of the cleanup review necessary. Specifically, to appropriately scope the cleanup review, site officials wanted information on the type of industry that would be using the property.³⁸ However, the CRO could not supply that information because it was seeking to acquire the property before it had a tenant, and as part of that effort was pursuing different types of industrial clients based on a reuse study that had previously identified several potential uses for the property, including nuclear-related projects.

³⁸Certain government property that is transferred must contain a warranty that all remedial action necessary to protect human health and the environment with respect to hazardous substances has been taken. 42 U.S.C. § 9620(h)(3). However, remedial action can be deferred—a condition referred to as “covenant deferral”—with the agreement of the governor of the state in which the facility is located, if the property is found to be suitable for transfer for the use intended and the intended use is consistent with the protection of human health and the environment, among other things. 42 U.S.C. § 9620 (h)(3)(C).

In addition, the DOE headquarters' reviews of the proposals for transfers by sale or lease can lengthen the disposal process. Site-level officials propose the terms and conditions of the real property transaction, which is then forwarded to headquarters for approval.³⁹ According to DOE officials, the duration of the disposal process is highly situational, and if DOE needs more information from the site or the requesting CRO or if the CRO amends its original request, the process may be delayed. For example, in response to a 2010 CRO proposal request for the transfer by sale of 1,300 acres for economic development, DOE headquarters responded that the requester had not provided all the documentation needed to process the proposal request. In another instance, in response to a 2008 proposal to transfer by sale a parcel of land in a buffer area at the Oak Ridge Reservation to the CRO, DOE headquarters requested in 2013 that the site consider using disposal authorities other than DOE's, including by using GSA as the disposal agent. During the review, according to EM officials at Oak Ridge, officials at headquarters began to reconsider the practice of transferring uncontaminated properties by sale at no-cost and providing indemnification.⁴⁰ According to site-level officials, similar properties—land from the site's buffer areas—had previously been approved for disposal through the process of transferring property by sale for the purpose of economic development at no cost and with the provision of indemnification. According to site-level officials, the absence of established practices on disposing of this type of property slowed the disposal process. Since then, officials at the site-level, in concert with officials at headquarters have developed a site-specific strategy enumerating when property will be disposed of using DOE's authorities and when property will be disposed of by engaging GSA. Ultimately, the property that prompted the review was transmitted to GSA for a targeted asset review in May 2014, more than 6 years after it was formally

³⁹Following the headquarters review, in the case of transfers by sale or lease for economic development purposes, officials provide a recommendation to the Secretary who makes the final determination.

⁴⁰According to DOE officials, this shift was the result of a June 2010 Presidential Memorandum that encouraged federal agencies, including DOE, to generate cost savings by the sale of unneeded real estate. Consequently, they identified GSA as a potential alternative option that they had not widely employed. Presidential Memorandum, *Disposing of Unneeded Federal Real Estate – Increasing Sales Proceeds, Cutting Operating Costs, and Improving Energy Efficiency*, 75 Fed. Reg. 33987 (June 16, 2010).

requested for transfer by the CRO.⁴¹ According to DOE officials, following that review, in which cultural resource issues were identified, the requesting organization indicated it was no longer interested in the property. DOE plans to continue maintaining the property, and as of December 2014, disposing of it was not a priority for the site.

Finally, some CRO representatives expressed concern that DOE reviews of transfer requests may take longer due to the removal in November 2013⁴² of a 90-day response time requirement from the regulations governing DOE transfers by sale or lease for economic development.⁴³ DOE officials told us that they do not expect the removal of the regulatory requirement will extend overall time frames to transfer properties by sale or lease—rather, the steps of the process are reordered. Prior to the change, a CRO would request a property and within 90 days DOE would respond whether it thought the transfer could potentially occur. At that point, DOE would start the environmental and radiological safety review process and the two parties would develop transfer documents to create a package for headquarters review. Now that the response requirement has been removed, DOE may respond to a request after the required environmental and radiological safety reviews have been completed. According to DOE officials, the response-time requirement was removed because it was unclear to which part of the process it applied⁴⁴ and to allow DOE to complete the required reviews. This could potentially allow DOE to make better-informed transfer decisions. Since the length of time necessary for completing the environmental and radiological reviews

⁴¹Targeted asset reviews are a service provided by GSA to promote the effective utilization of federal real property assets as well as the repositioning of real property that is no longer mission critical to federal agencies. Specifically, targeted asset reviews are real-estate utilization studies used by GSA to assist agencies with real property asset management by, for example, collecting and organizing title, environmental, historic, and cultural information.

⁴²78 Fed. Reg. 67927 (Nov. 13, 2013). DOE made revisions to clarify the conditions regarding economic development and reuse.

⁴³Property may be disposed of for purposes other than economic development. However, as previously mentioned, all transfers of EM properties from 2003 through 2013 were completed pursuant to the process of transferring property for the purpose of economic development.

⁴⁴According to DOE officials, in practice DOE officials applied the 90-day limit to the initial DOE response as to whether to pursue a proposed transfer; however, the regulation did not explicitly state as such.

remains unchanged, DOE officials said DOE does not expect the overall transfer time frames to be affected.

EM and DOE Have Taken Steps to Address Some Cited Disposal Challenges

EM and DOE have taken some actions to accelerate the D&D and property disposal processes. Officials at some sites have instituted processes to allow for accelerated D&D, steps that they said saves on maintenance and other costs, and have created more flexible cleanup processes that they said have resulted in quicker disposal. For example, at one site, EM reprioritized its project list to more quickly complete D&D on a facility with a collapsing roof. Officials said that taking the building down sooner than planned allowed EM to avoid spending operating funds maintaining a facility that would later be demolished. Similarly, as part of a reindustrialization program at ETTP, EM transferred by sale 13 facilities and 8 land parcels to the CRO for economic development. The intent of the reindustrialization program was to establish a commercial industrial park at ETTP and to accelerate cleanup of DOE facilities at a reduced cost by making facilities that had previously been leased to the CRO available for transfer by sale. DOE reported that the reindustrialization program has resulted in cost savings that have allowed EM to direct additional funds to clean up, and therefore accelerate D&D at Oak Ridge. Specifically, DOE reported in May 2013 that the program resulted in about \$110 million in cost savings from, among other things, \$37.1 million in avoided facility surveillance and maintenance and \$12.6 million in avoided facility demolition. Finally, by instituting the “Mound 2000” process at DOE’s former Mound Site, DOE and site regulators focused cleanup efforts on small parcels of land and individual buildings identified for industrial reuse. EM officials and representatives of the CRO said this allowed groups of properties to be strategically transferred as they were deemed clean, resulting in quicker reuse time frames than would have been accomplished by transferring the whole site only after it was cleaned in its entirety.⁴⁵

DOE has also taken steps to develop strategies to improve property disposal, but does not plan to require implementation or changes to its processes. DOE established the Asset Revitalization Initiative Task Force in 2011 to identify opportunities to promote more efficient business

⁴⁵As previously mentioned, the number of facility and land transfers provided by EM did not include property transferred at the Mound Site, because the terms of the agreement were settled prior to 2003, though some transfers did take place from 2003 through 2013.

practices and encourage public-private collaboration for the reuse of assets on and near DOE sites. Task force members developed proposals for improving the property disposal approval and notification processes, as well as disposal timelines, and for exploring additional steps DOE could take toward improvement in these areas. According to DOE officials, there was never the intention to require implementation of the task force's proposals about potential ways to address challenges across DOE. Instead, DOE officials described the task force, with members from several DOE sites as well as headquarters and NNSA, as an effort for sites to learn from one another.

Conclusion

Though federal agencies have taken steps to improve the management of excess properties, they continue to face many of the same challenges that we have reported for over a decade. For DOE, those challenges are compounded by the fact that some of its excess properties have been contaminated as a result of their use in supporting the development of nuclear weapons and nuclear energy research. DOE's ability to manage the disposal of these properties is impeded by its reliance on data that are not always timely or complete. Without up-to-date information on the status of all facilities undergoing D&D, of their projected end-state, or major milestones DOE may not be able to make well-informed decisions about this subgroup of its property holdings.

In addition, though the vast majority of these contaminated facilities are disposed of via demolition, there is potential for other facilities—such as the uncontaminated facilities for which EM is responsible—and some land that EM holds to be disposed of via transfers by sale for economic development. While disposing of unneeded land may not produce significant cost-savings since it does not require large amounts of resources to maintain, continuing to hold real property that may no longer be needed does not present a positive image of the federal government in local communities, particularly if another entity may be able to put the property to better use. Although DOE's policy is to identify and dispose of properties that are appropriate for economic development, currently, neither officials at headquarters nor the site-level have taken a proactive or systematic approach to implementing this policy. As a result, DOE does not have a consolidated inventory of properties that might be appropriate for this type of disposal. A fuller understanding of the size and scope of the properties that fit this category could facilitate a more proactive disposal approach and reduce DOE's overall property holdings as well as assist economic development in selected areas.

Recommendations for Executive Action

To help DOE make more informed decisions regarding its management and disposal of real property held by EM, we recommend that the Secretary of Energy take the following actions:

- DOE should take steps to ensure that its real property data systems provide timely and complete data on the status and major milestones of facilities undergoing D&D at a level of detail that supports sound decision making.
- DOE should develop and document an approach to property transfer consistent with DOE's policy to identify and transfer properties appropriate for economic development, including clearly defining who is responsible for identifying those properties, when they should be identified, and how.

Agency Comments

We provided a draft of this report to the Secretary of Energy for review and comment. DOE concurred with our recommendations and provided technical clarifications, which we incorporated as appropriate. DOE's comments are discussed below and the written response is reprinted in appendix II.

DOE agreed with our recommendation that it should ensure that its real property data systems provide timely and complete data on the status and major milestones of facilities undergoing D&D. DOE stated that it intends to address this recommendation by (1) making revisions to its data system to ensure that the range of status options covers the entire lifecycle of an asset and does not overlap; (2) proposing to its data system governance bodies new data elements for each asset, where applicable; and (3) applying data entry processes consistent with internal accounting guidance.

With regard to our recommendation that DOE develop and document an approach to property transfer consistent with its policy to identify and transfer properties appropriate for economic development purposes, DOE responded that it will issue a policy memorandum that will (1) assign responsibility for identifying such properties and (2) include the timeframe and manner of identification and any resulting notification. DOE indicated it will include portions of the guidance, as appropriate, in future updates to any related directives.

We are sending copies of this report to the appropriate congressional committees and the Secretary of Energy. In addition, the report will be available at no charge on GAO's website at <http://www.gao.gov>.

If you or your staff have any questions, please contact me at (202) 512-2834 or wised@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

Sincerely Yours,

A handwritten signature in black ink that reads "David J. Wise". The signature is written in a cursive style with a large, stylized "D" and "W".

David J. Wise
Director, Physical Infrastructure Issues

Appendix I: Objectives, Scope, and Methodology

Our objectives were to (1) describe the number and characteristics of facilities for which the Department of Energy's (DOE) Office of Environmental Management (EM) completed the deactivation and decommissioning (D&D) process from 2003 through 2013, (2) assess DOE's management of the disposal of properties that were EM's responsibility, and (3) identify the challenges DOE faced in disposing of these properties and actions it has taken to address those challenges. The focus of this report was DOE's management of the disposal of facilities that required D&D once they had reached their end-state. We did not assess or examine DOE's management of the D&D process itself in this report. For example, we did not assess the process or DOE's decision making regarding the selection of a facility's end-state or prioritizing D&D work.

To describe the facilities for which EM completed D&D from 2003 through 2013, we obtained and analyzed DOE and EM data for that period. From DOE, we obtained data from the Facilities Management Information System (FIMS), the agency's central real property database. To identify facilities for which EM completed D&D from 2003 through 2013, DOE officials queried FIMS for facility records that met two criteria: (1) the record indicated that the facility was deactivated, shutdown pending the start of D&D, or that D&D was in progress at any point during that time period and (2) the record for that facility was archived in a subsequent year, which indicated that the facility had been disposed of and thus implying D&D was complete. Using data from this query we developed summary statistics to describe the facilities of interest. We posed questions to knowledgeable DOE officials about data collection and reporting practices and reviewed related documentation. We identified a number of shortcomings of FIMS data related to their completeness and use as a management tool; however, we determined that the data were sufficiently reliable to use, in concert with other data sources, to describe the size and disposition of the facilities of interest. To supplement information gathered from FIMS, we also obtained and analyzed data from EM's Integrated Planning, Accountability, and Budgeting System (IPABS). We used the annual performance metrics produced from that system to develop a comprehensive understanding of the total number of facilities for which EM had completed disposal from 2003 through 2013 and their location, as well as the scope and location of future disposal efforts. Similarly, we posed questions to knowledgeable EM officials about data collection and reporting practices and reviewed related documentation, and we determined that the data were sufficiently reliable for the descriptive purposes for which they were used. To gather additional information about these facilities and DOE's approach to their

disposal, we reviewed relevant laws and regulations and interviewed DOE officials at headquarters and seven sites (see table 3). We visited four of those sites in person and collected and reviewed supporting documentation as necessary. We selected sites to visit that would provide variation in site attributes, including size, location, whether it was a closure or non-closure site,¹ and the extent to which property at the site had been transferred by sale for reuse. Observations made from these sites are not generalizable to all DOE properties; rather, they provide specific, detailed examples of issues that were described in general terms by agency officials.

Table 3: Select Department of Energy Site, Location, and Interview Method

Site	Location	Interview method
Argonne National Laboratory	Argonne, Illinois	Telephone
Hanford	Richland, Washington	Telephone
Los Alamos National Laboratory	Los Alamos, New Mexico	Telephone
Mound	Miamisburg, Ohio	In person
Portsmouth	Piketon, Ohio	In person
Oak Ridge Reservation	Oak Ridge, Tennessee	In person
Savannah River Site	Aiken, South Carolina	In person

Source: GAO. | GAO-15-305

To assess DOE’s management of the disposal of properties that were EM’s responsibility, we analyzed DOE’s policies and guidance related to real property management and interviewed officials at headquarters and at the site level about the disposal of these properties in practice. We also interviewed representatives of the six active community reuse organizations (CRO) that received, requested, or were interested in requesting EM properties—the primary non-federal recipients of these properties—as well as an organization that represents a coalition of CRO’s and two local governments that had been the recipients of DOE properties (see table 4). We then compared those practices with (1) GAO’s *Standards for Internal Control in the Federal Government*² and (2)

¹Closure sites are those sites where DOE’s active mission has ceased and DOE is conducting D&D or other cleanup activities. Non-closure sites are those sites where DOE’s active mission continues.

²GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

DOE's policies on real property management, including *Real Property Asset Management*.³

Table 4: Select Community Reuse Organizations and Local Governments, Department of Energy (DOE) Site Affiliation, and Interview Method

Stakeholder	DOE site affiliation	Interview method
City of Oak Ridge	Oak Ridge Reservation	In person
Community Reuse Organization of East Tennessee	Oak Ridge Reservation	In person
Energy Communities Alliance	Multiple	In person
Los Alamos County	Los Alamos National Laboratory	Telephone
Mound Development Corporation	Mound	In person
Paducah Area Community Reuse Organization	Paducah	Telephone
Savannah River Site Community Reuse Organization	Savannah River Site	In person
Southern Ohio Diversification Initiative	Portsmouth	In person
Tri-City Development Council	Hanford	Telephone

Source: GAO. | GAO-15-305

To identify the challenges, if any, that DOE faced in disposing of EM properties and the actions it was taking to address those challenges, we interviewed officials at DOE headquarters and at the seven selected sites and conducted 9 stakeholder interviews with representatives from the active CROs and local governments. As previously mentioned, we also conducted four site visits to observe the properties of interest and gather additional context for the challenges DOE faced.

³DOE, *Real Property Asset Management*, DOE O 430.1B (April 2011).

We conducted this performance audit from March 2014 to February 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the Department of Energy



Department of Energy

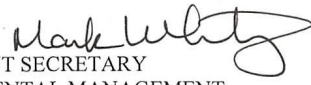
Washington, DC 20585

February 11, 2015

MEMORANDUM FOR DAVID WISE

DIRECTOR, PHYSICAL INFRASTRUCTURE
UNITED STATES GOVERNMENT
ACCOUNTABILITY OFFICE
OFFICE OF INSPECTOR GENERAL

FROM:

MARK WHITNEY 
ACTING ASSISTANT SECRETARY
FOR ENVIRONMENTAL MANAGEMENT

SUBJECT:

Government Accountability Office Report GAO-15-305, DOE REAL
PROPERTY: *Better Data and a More Proactive Approach Needed to
to Facilitate Property Disposal*

This memorandum provides the Department of Energy's (DOE) response to the two primary recommendations identified in the report. The DOE respects the findings of the Government Accountability Office (GAO), and concurs with both recommendations:

1. DOE should take steps to ensure that its real property data systems provide timely and complete data on the status and major milestones of facilities undergoing deactivation and decommissioning (D&D) at a level of detail that supports sound decisionmaking.
2. DOE should develop and document an approach to property transfer consistent with its policy to identify and transfer properties appropriate for economic development, including clearly defining who is responsible for identifying those properties, when they should be identified, and how.

Attachment 1 provides the actions DOE plans to implement to address GAO's recommendations. DOE believes that implementation of these actions will improve the management of its excess, process-contaminated real property, while also more fully engaging the public on these matters. Furthermore, DOE appreciates GAO acknowledging past efforts to improve the quality and completeness of its data, as well as its previous property transfers, which have supported local economic development. Lastly, attachment 2 contains management comments DOE wishes to offer, in order to clarify several points made in the report.

DOE appreciates the opportunity to review the subject report. Should you have any questions or comments please contact Mr. Mark Gilbertson, Deputy Assistant Secretary for Site Restoration, at (202) 586-0755.

cc:

Nancy Lueke
Assistant Director, Physical Infrastructure



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ATTACHMENT 1

Response to Recommendations:

***DOE REAL PROPERTY: Better Data and a More Proactive Approach
Needed to Facilitate Property Disposal (GAO-15-305)***

GAO Recommendation #1:

DOE should take steps to ensure that its real property data systems provide timely and complete data on the status and major milestones of facilities undergoing D&D at a level of detail that supports sound decisionmaking.

DOE Response:

Concur. The Department of Energy maintains its real property inventory of record in the Facilities Information Management System (FIMS). DOE intends to revise status options and definitions in FIMS to ensure that the range of options covers the entire lifecycle of an asset, and that the definitions no longer overlap. DOE sites will continue to review and update status entries as frequently as they conduct data validations and also following major lifecycle milestones. The Department will propose to its FIMS governance bodies new data elements for collecting dates for each real property asset, where applicable.

The Office of Environmental Management (EM) will improve its FIMS entries by applying requirements from 41 C.F.R. § 102-84, and from internal accounting guidance. The report notes that in 2013, the EM Integrated Planning, Accountability, and Budgeting System (IPABS) began storing data that identifies specific facilities in each project unit. EM is developing a plan to continue to improve, complete and maintain this information from IPABS to better leverage the data in FIMS.

GAO Recommendation #2:

DOE should develop and document an approach to property transfer consistent with its policy to identify and transfer properties appropriate for economic development, including clearly defining who is responsible for identifying those properties, when they should be identified, and how.

DOE Response:

Concur. The Department's Senior Real Property Officer will issue a policy memorandum that will assign responsibility for identifying properties appropriate for economic development. This policy memorandum will also include the timeframe and manner in which the identification and any resulting notifications should occur, with the intent that future updates to any related Department directives, including DOE Order 430.1B, *Real Property Asset Management*, will incorporate salient portions of the guidance.

Appendix III: Completed Facility and Land Transfers by the Department of Energy’s Office of Environmental Management, 2003 through 2013

We asked officials from the Department of Energy’s Office of Environmental Management (EM) to provide information on real property—facilities and land—held by EM that was transferred by sale to non-federal entities from 2003 through 2013 (see table 5). All 21 properties that were transferred by sale during this time period were at the East Tennessee Technology Park, a collection of facilities designated for commercial reuse and land set aside for redevelopment that is EM’s responsibility at the Oak Ridge Reservation in Tennessee.¹

Table 5: Completed Facility and Land Transfers by the Department of Energy’s (DOE) Office of Environmental Management, 2003 through 2013

Site, property name, and size	Date request proposal submitted to DOE Site Office and transfer completed	Transferee
Facilities		
Site: Oak Ridge Reservation Property: K-1400 Office Building Size: 13,000 sq. ft. on approximately 0.15 acres	Submitted: June 2003 Completed: 2/14/2006	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1036 Warehouse Size: 80,100 sq. ft. on approximately 2.92 acres	Submitted: June 2003 Completed: 2/14/2006	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1330 Size: 14,400 sq. ft. on approximately .19 acres	Submitted: 8/26/2002 Completed: 6/7/2005	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1007 Size: 113,000 sq. ft. on approximately 2.32 acres	Submitted: 8/26/2002 Completed: 6/7/2005	Community Reuse Organization of East Tennessee

¹Given the focus of this report on the disposal of properties that were EM’s responsibility, we only included transfers of those properties in the list, though additional real property transfers involving facilities and land that were the responsibility of other DOE offices or the National Nuclear Security Administration—a separately organized agency within DOE—occurred during this timeframe.

Appendix III: Completed Facility and Land Transfers by the Department of Energy's Office of Environmental Management, 2003 through 2013

Site: Oak Ridge Reservation Property: K-1580 Size: 38,211 sq. ft. on approximately .32 acres	Submitted: 12/24/2002 Completed: 6/7/2005	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1225 Size: 23,500 sq. ft. on approximately .33 acres	Submitted: 12/24/2002 Completed: 6/7/2005	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1652 Fire Station Size: 23,232 sq. ft. on approximately 2.22 acres	Submitted: 4/11/2006 Completed: 1/4/2008	City of Oak Ridge
Site: Oak Ridge Reservation Property: K-1515 Complex; Wastewater Treatment Plant Size: 8,900 sq. ft. on approximately 4.99 acres	Submitted: 12/4/2006 Completed: 5/29/2008	City of Oak Ridge
Site: Oak Ridge Reservation Property: K-1000 Visitor Center Size: 1,883 sq. ft. on approximately 0.11 acres	Submitted: 10/31/2005 Completed: 2/13/2009	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1501-H+L Maintenance Shop Size: 2,683 sq. ft. on approximately 0.05 acres	Submitted: 5/31/2005 Completed: 6/26/2009	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-1008-F Office Building Size: 6,266 sq. ft. on approximately 0.26 acres	Submitted: 5/23/2007 Completed: 9/8/2009	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-792/K-791-B Size: 6,800 sq. ft. on approximately 19.91 acres (in combination with K796A)	Submitted: 9/1/2006 Completed: 9/2/2010	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: K-796-A Size: 6,800 sq. ft. on approximately 19.91 acres (in combination with K-792/K-791-B)	Submitted: 9/1/2006 Completed: 9/2/2010	Community Reuse Organization of East Tennessee

Appendix III: Completed Facility and Land Transfers by the Department of Energy's Office of Environmental Management, 2003 through 2013

Land		
Site: Oak Ridge Reservation Property: ED-1 Vacant Land Size: approximately 491 acres	Submitted: 2/20/2002 Completed: 5/1/2003	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-5 East Vacant Land Size: approximately 17.65 acres	Submitted: 8/26/2002 Completed: 10/19/2007	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-7 Vacant Land Size: approximately 4.93 acres	Submitted: 8/9/2004 Completed: 2/27/2008	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-5 West Vacant Land Size: approximately 28.17 acres	Submitted: 8/26/2002 Completed: 12/22/2008	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-4 Vacant Land Size: approximately 14.01 acres	Submitted: 2/8/2008 Completed: 7/9/2009	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-8 Vacant Land Size: approximately 77.74 acres	Submitted: 2/8/2008 Completed: 7/27/2010	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-9 Vacant Land Size: approximately 13.06 acres	Submitted: 2/8/2008 Completed: 3/31/2011	Community Reuse Organization of East Tennessee
Site: Oak Ridge Reservation Property: ED-10 Vacant Land Size: approximately 12.63 acres	Submitted: 8/4/2010 Completed: 12/12/2011	Community Reuse Organization of East Tennessee

Source: DOE. | GAO-15-305

Note: As property requests are made directly to the sites, EM does not keep a comprehensive consolidated list of real property requests that have not yet been submitted to headquarters for review. EM requested the sites provide the information on those for the purposes of this report.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

David Wise, (202) 512-2834 or wised@gao.gov

Staff Acknowledgments

In addition to the contact named above, Nancy Lueke, Assistant Director; Gary Guggolz, Delwen Jones, Joshua Ormond, Alexander Ray, Jack Wang, Crystal Wesco, Jessica Wintfeld, and Elizabeth Wood made key contributions to this report.

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