

RECORDS MANAGEMENT FOR BUILDING CLOSURE PROJECTS: FEDERAL FACILITY BEST PRACTICES

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ABSTRACT

This paper presents the results of a benchmarking analysis of the methods and processes used by several federal facilities to disposition records during building closure projects. The analysis reviews the records management process used at the Rocky Flats Environmental Technology Site, presents records management process data collected from other Department of Energy (DOE) and Department of Defense (DoD) sites engaged in building closure projects, and identifies opportunities for process improvement based on the best practices employed by these facilities. Records management personnel from five DOE facilities and one DoD facility participated in this benchmarking study. The analysis sought to identify process improvement opportunities based primarily on a qualitative “lessons learned” approach. No facility was found to be superior in all facets of records management; however, unique insights were gained from each organization.

INTRODUCTION

The Rocky Flats Environmental Technology Site (RFETS) is required to manage its records according to federal laws, regulations, and DOE mandates. Disposition of these federal records is performed under guidelines established by the National Archives and Records Administration (NARA). In addition, various moratoriums on the destruction of records are currently in force at the site. These numerous requirements, coupled with the technical and administrative challenges inherent in dispositioning large volumes of historical records, has placed a significant burden on the current RFETS records management system.

In coordination with ongoing reengineering efforts at RFETS, the Records Management (RM) organization conducted a benchmarking analysis of the work processes used by site personnel to disposition records during building closure projects. This benchmarking analysis documented the records management process in place at RFETS, compared records management process data collected from other DOE sites and federal facilities engaged in building closure projects, and identified opportunities for process improvement based on the best practices employed by those other federal facilities.

METHODOLOGY

Benchmarking is a method of process analysis in which superior practices are identified and evaluated as models for improvement. More specifically, benchmarking employs comparative analyses with other organizations, called benchmarking partners, to generate creative solutions to process inefficiencies. The Building Closure Records Management Benchmarking Study was

conducted using the methodology presented in the *Environmental Management Benchmarking Guide*, a DOE manual published by the Office of Environmental Management (EM) in 1996. The *EM Benchmarking Guide* presents four distinct phases—Planning, Data Collection, Analysis, and Action—for identifying and implementing process improvements at any organizational level. This study was intentionally limited to the first three benchmarking phases, as process improvement activities are addressed by separate, multi-disciplinary teams of site personnel established by the RFETS reengineering organization at a later date.

The planning phase of this study entailed working directly with RFETS Records Management professionals to understand the requirements, drivers, and constraints that shape the site's records management system. This included a review of federal regulations, NARA requirements, and DOE Orders governing the records disposition process, as well as interviews with site personnel responsible for managing records recovered from deactivated buildings. A narrative description and flow diagram of the RFETS records management process are provided in the following section of this paper.

After establishing the sequence of records management activities performed at RFETS, the benchmarking team developed a written survey to collect relevant process information from RM organizations at other federal facilities. Data collection was targeted at facilities performing records disposition in conjunction with building closure activities. Records Management professionals at partner sites were identified through professional contacts of the benchmarking team, and were not intended to represent the full range of federal facilities or even an "average" facility. Rather these partners were chosen to illustrate best practices employed at federal cleanup sites engaged in activities similar in scope and mission to those at RFETS. Also, this study was designed to capture process information primarily on a case study basis rather than on a statistical basis. Consequently, the survey questions were presented in an open-ended manner to elicit responses from RM professionals performing a variety of functions within different organizations.

Contractor personnel from four DOE facilities and one DoD facility agreed to participate in this benchmarking study. To assist in normalizing the survey data, participants were encouraged to clarify their responses by elaborating on specific situations or requirements they believed to be unique to their facilities. The survey was careful to query participants on their own experiences rather than those of their peers or what they considered to be standard practice in their profession. Details that were not adequately captured in the written survey were clarified during subsequent telephone conversations with the benchmarking team.

The analysis phase of this study sought to identify process improvement opportunities for RFETS based on a "lessons learned" approach. The relative merits of each partner facility were evaluated independently, then combined to develop a set of recommendations for improving the records management system as it relates to the building closure process. In addition, the benchmarking analysis considered records management practices that were found to be unsuccessful at other facilities, as these offered valuable lessons as well. The analysis was outcome-oriented and focused ultimately on providing useful findings and recommendations for implementing process improvements within the Records Management organization at RFETS.

RECORDS MANAGEMENT PROCESS DESCRIPTION

The process used by the Records Management staff to disposition building records at RFETS is depicted by the flow diagram in Figure 1. Each of the steps in Figure 1 is briefly explained below.

Step 1. Notify Records Management That Building Will Be Deactivated

The RM organization is notified of building deactivation in advance of any closure activities. It is important that RM be made aware of building deactivation before it has begun, as a lack of early involvement in the closure process can result in a loss of records information needed to determine if materials recovered from a building are in fact records. Loss of records information occurs when staff knowledgeable about the records are unavailable, when records are improperly stored or indexed, or when outgoing building occupants disposition records without understanding the relevant requirements and responsibilities of the RM organization.

This step has the greatest influence on the cost of dispositioning a box of records. Disposition costs can vary between \$50 and \$1,200 per box depending upon the amount of information available about the records. The availability of useful records information is largely determined by how early RM is involved in building closure activities. Records Management staff at RFETS are implementing a formal strategy of early involvement in the closure process to ensure outgoing building occupants understand the requirements and responsibilities of records disposition.

Step 2. Perform Initial Building Walkdown

Records Management staff perform a building walkdown with outgoing occupants to estimate the amounts of record and non-record materials, as well as the potential for contamination of those materials, present in a building awaiting deactivation. In addition to this initial walkdown, RM personnel rely on multiple sources for gathering records information. These sources may include building occupants knowledgeable about the records, record inventories, disposition schedules, and building histories. The availability of existing information sources again depends upon how early RM is involved in the building closure process. In cases when abandoned materials may include records, RM staff must review the content of those materials individually to determine if they are records. This process of manually evaluating abandoned materials substantially increases the cost of dispositioning building records.

Step 3. Is Material A Record?

Outgoing building occupants are trained by the Records Management staff to determine which types of materials are records and which are non-records. With assistance from the RM staff, outgoing building occupants evaluate the materials identified in Step 2 to identify whether they are records that must be retained for periods specified in approved retention schedules, or whether they are non-records that may be disposed of during building closure. This evaluation is based on applicable regulatory requirements and moratoriums stemming from open legal cases. All records are retained in accordance with NARA and the Code of Federal Regulations (CFR).

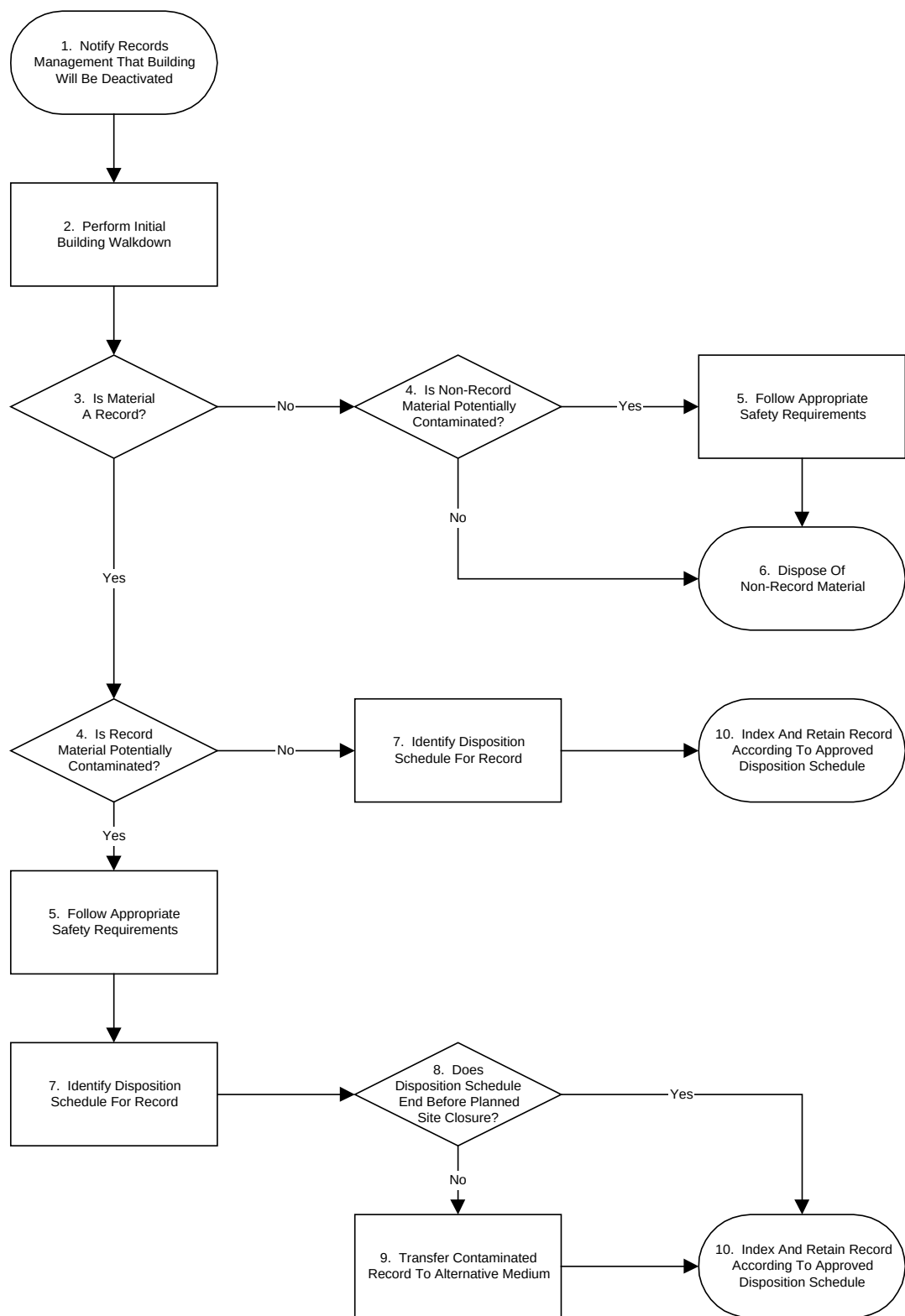


Fig. 1. RFETS Building Records Disposition Process

Step 4. Is Record/Non-Record Material Potentially Contaminated?

Records Management personnel first attempt to identify whether or not record and non-record materials are radiologically contaminated by interviewing knowledgeable staff and determining the historical location of the materials at the facility. If RM personnel are unable to determine that the materials are not radiologically contaminated based on existing information, then the materials are treated as being potentially contaminated. Cost estimates provided by RFETS health physics professionals for surveying record and non-record materials for radiological contamination range from \$50 to \$3,500 per box. Due to the wide variability of this cost, it is highly desirable that any contaminated records and non-record materials be identified using existing historical information whenever possible.

Step 5. Follow Appropriate Safety Requirements

Appropriate personal protective equipment (PPE) is required for all staff handling potentially contaminated materials. Records Management staff must be trained in radiation worker safety procedures before work can commence in building areas where contaminated or potentially contaminated records may exist.

Step 6. Dispose Of Non-Record Material

Non-record materials free of contamination are disposed of in recycling containers by outgoing building occupants and/or Records Management staff. These non-record materials must meet the same requirements as other recycled materials. Radiologically contaminated non-record materials are disposed of as low level waste at an approved disposal facility.

Step 7. Identify Disposition Schedule For Record

Records Management identifies a disposition schedule for all records to determine how long the record will be temporarily retained. Abandoned materials determined to be records must be assigned NARA-approved disposition schedules. In some cases, existing moratoriums on DOE records require RM personnel to extend disposition schedules beyond the retention periods established by NARA.

Step 8. Does Disposition Schedule End Before Planned Site Closure?

All records retained at offsite storage facilities must be free of contamination. Contaminated or potentially contaminated records intended for offsite retention must therefore be transferred to an appropriate alternative medium which is then indexed and retained in place of the contaminated originals. To minimize the costs associated with media transfer, contaminated records having disposition schedules that expire before the planned facility closure date are temporarily stored onsite in radiologically protected areas and are later disposed of as low level waste after their disposition schedules have expired.

Step 9. Transfer Contaminated Record To Alternative Medium

Records are transferred to an alternative medium for offsite storage by RM personnel having the appropriate radiation worker safety training. Currently, the only two record media officially recognized by DOE and NARA are paper and microfilm.

Step 10. Index and Retain Record According To Approved Disposition Schedule

Records Management requires that records sent to storage by their custodian be indexed and prepared according to approved retention and retrieval guidelines. Records are either retained onsite for a finite period of time ending prior to site closure, or they are sent to an offsite storage facility. In either case, their retention and disposition must meet NARA requirements.

PRIMARY FINDINGS

This benchmarking study provided RFETS with a means of comparing the records management resources and methods applied during its building closure process to those utilized at other DOE and DoD facilities. More importantly, however, this study was undertaken to identify records management practices that are successfully employed by other organizations and that could be adapted to facilitate accelerated building closure at RFETS. The findings discussed below are therefore intended to illuminate the lessons learned from other facilities performing building closure rather than simply to provide benchmarking metrics against which to evaluate RFETS records management activities.

Primary Finding #1: Records Management funding and staffing levels at RFETS are consistent with those of its benchmarking partners.

Three of the four DOE benchmarking partners fund their Records Management programs as part of facility overhead, while the remaining DOE partner and the DoD facility fund RM activities from individual closure projects. As shown in Figure 2, the median annual Records Management budget for organizations funded through facility overhead, including RFETS, was \$1.55 million. The overhead budget for Records Management activities at RFETS (including litigation and library support) during Fiscal Year 1998 (FY98) was \$1.4 million, a figure consistent with those found at other DOE facilities. Unfortunately, accurate budget figures for project-funded RM organizations were not available.

The five benchmarking partners and RFETS employed a median of 14 full-time staff to perform Records Management activities during FY98. The 17-person staff engaged in RM and litigation support activities on a full-time basis at RFETS also was consistent with this median figure. The number of staff needed to accomplish Records Management requirements at partner facilities did not appear to be directly related to different funding sources (i.e., facility overhead vs. projects); however, rigorous comparisons were not possible due to the small sample size and the variety of organizational structures utilized by the partners. Comparisons of individual facility RM staffing levels are displayed in Figure 3.

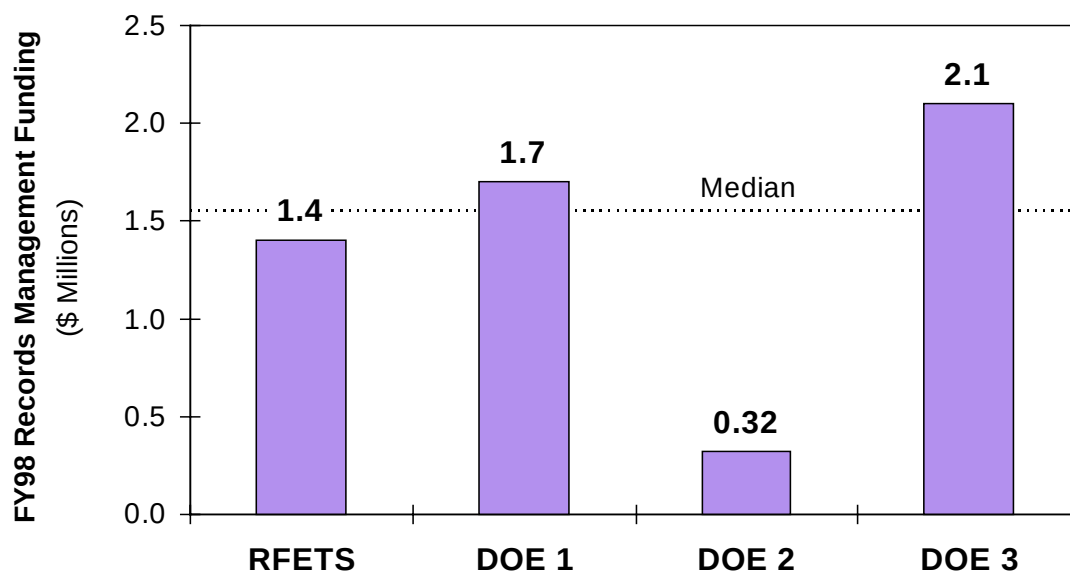


Fig. 2. Comparison of Records Management Funding Levels

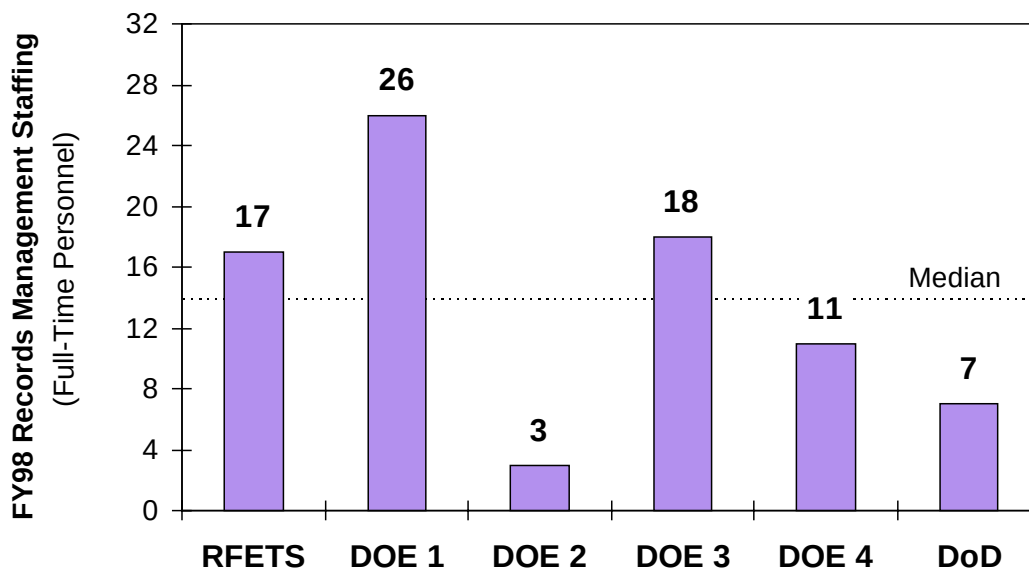


Fig. 3. Comparison of Records Management Staffing Levels

Primary Finding #2: Four of the five benchmarking partners incorporate Records Management staff directly onto their building closure teams.

A trend toward including Records Management staff in the earliest phases of the building closure process was evident at all but one of the partner facilities. The identified advantages of early RM participation in the planning and implementation of building closure projects included 1) expedited record location within occupied buildings scheduled for closure, 2) increased lead time for records disposition activities, and 3) development of closer working relationships with site personnel from other organizations including Environmental Restoration and Health Physics. In addition, all the benchmarking partners required some form of employee training on the identification of federal records and how to distinguish various record types from non-record materials. Such training was found to be beneficial in reducing the burden often placed on RM staff to separate records from non-record materials recovered from buildings undergoing closure.

Primary Finding #3: All of the DOE benchmarking partners experience more than a one-year wait for NARA approval of disposition schedules.

Three of the four DOE partner facilities had waited more than two years to obtain approval from NARA to begin the disposition of previously unscheduled records. One site had never received approval for a disposition schedule request. Conversely, the DoD benchmarking partner reported an average wait time for NARA approval of two to three weeks. Further discussion revealed that the DoD facility engages in direct communication with NARA officials, while approval of new disposition schedules within DOE is coordinated through offices at agency headquarters. It is unclear exactly where this approval process breaks down, but it is evident that the procedure being followed by DOE is consistently ineffective.

Primary Finding #4: None of the benchmarking partners have devised a cost-effective, long-term solution for dispositioning contaminated records.

Only two of the RM organizations surveyed are currently in possession of contaminated records. At these facilities, contaminated records are maintained in radiologically controlled areas and can only be accessed by properly trained personnel wearing suitable PPE. Because of the specialized training and equipment required to handle contaminated materials, otherwise routine tasks such as locating and copying records are laborious and costly. Federal regulations currently require all records to be maintained either in hard copy form or on microfilm. As a result, transferring contaminated records to digital media for efficient storage and retrieval is often impracticable. Furthermore, the costs associated with producing "clean" copies of radiologically contaminated records often are prohibitive due to safety requirements and existing technological constraints.

A promising new technology being evaluated by one DOE partner facility is digital copying. By using a digital copier to duplicate contaminated records, it is possible to simultaneously create a clean hard copy and a digital image of each copied page. This would provide RM personnel with the capability to produce multiple copies of records quickly and remotely using digital images, while maintaining compliance with DOE requirements for hard copy records retention.

Primary Finding #5: Two of the benchmarking partners use digital media to store images of hard copy records.

Two partner facilities without contaminated records, one DOE site and the DoD site, have begun to transfer hard copy records to digital media for more efficient storage and retrieval. In both cases, this process was precipitated by a detailed cost-benefit analysis that weighed the capital expense of purchasing digital scanning and encoding equipment against the long-term productivity improvements offered by digital media. Specifically, these analyses considered 1) the reduced time and cost required to locate specific records and perform full text searches of digital images, 2) the lower onsite storage costs afforded by reduced record volumes, and 3) the reduced copying costs resulting from facility-wide access to digitized records housed on local area networks. Both facilities continue to maintain a single hard copy of their records collections in order to remain in compliance with existing federal regulations; however, it is anticipated that these requirements will be modified in the coming years as the use of digital media gains wider acceptance throughout the federal government.

OTHER FINDINGS

In addition to the five primary findings, the benchmarking study uncovered some interesting RM practices being conducted at individual partner facilities. For example, one of the DOE partners has developed an evaluation process for determining which records are microfilmed as well as which records are stored offsite. The criteria used in these evaluations include the following:

- record volume,
- frequency of retrieval,
- need for copies, and
- disposition schedule.

This partner facility does not follow absolute standards for choosing record storage media and locations, but rather the Records Management staff evaluates trade-offs (e.g., lower storage costs and higher retrieval costs for maintaining records offsite) to assess the most cost-effective records disposition strategies on a case-by-case basis. Likewise, when considering the transfer of hard copy records to microfilm, the RM staff estimates the future need for copies to determine the potential cost savings available through more efficient reproduction from microfilm. In this manner, the facility attempts to minimize the life-cycle cost of storing, retrieving, and copying records for the duration of their disposition schedules.

Another DOE partner related that as the building closure program has accelerated at that facility, the need for Records Management involvement has increased dramatically. While this need has placed additional burdens on the RM organization, their earlier participation in building closure activities has allowed them to minimize the number of abandoned records recovered during the closure process, thus improving their ability to disposition records more quickly in the long term. Staff at this site reported that they are now routinely consulted in the development of proactive systems aimed at reducing the number of records being held in buildings by their originators.

SUMMARY

Although the findings identified in this study are not statistically representative of DOE or DoD Records Management activities as a whole, they did provide RFETS with a means to 1) evaluate its building closure records management system relative to those applied at other federal facilities, and 2) identify several key areas with significant potential for improved process performance. In summary, this study found that RFETS and its benchmarking partner facilities together exhibit the following characteristics:

1. Records Management funding and staffing levels at RFETS are consistent with those of its benchmarking partners,
2. Four of the five benchmarking partners incorporate Records Management staff directly onto their building closure teams,
3. All of the DOE benchmarking partners experience more than a one-year wait for NARA approval of disposition schedules,
4. None of the benchmarking partners have devised a cost-effective, long-term solution for dispositioning contaminated records, and
5. Two of the benchmarking partners use digital media to store images of hard copy records.

It is evident from these findings that RFETS is in a similar position to other facilities across the DOE complex with regard to dispositioning records recovered during building closure projects. This relatively new mission has created substantial records management challenges that have not yet been met comprehensively by any single benchmarking partner. In its mode of accelerated site closure, DOE faces acute resource constraints in performing records disposition activities during building deactivation. As more sites begin to implement their closure plans, the need to realize improvements in the efficiency and effectiveness of building records disposition will only increase. Recent technological advances such as digital imaging and copying offer potential solutions to the numerous problems surrounding the management of contaminated records. In addition, proactive teaming mechanisms are proving to be successful in initiating records management efforts earlier in the building closure process. Finally, as demonstrated by the DoD benchmarking partner, rapid approval of disposition schedules is possible through direct communication with NARA officials. Although this would require a restructuring of DOE procedures, it appears to be in the agency's best interest to consider doing so.