



D&D Lessons Learned from the Mound Plant: The Facility 'Binning' Process



Office of Environment, Safety & Health

July 1999

The Department of Energy's Mound Environmental Management Project (DOE-MEMP) is working to exit the Mound site by 2005. As part of that mission, DOE-MEMP must disposition all of its facilities, either through demolition or through preparing a facility to be transferred with the property. If site regulators do not agree that a facility is protective at the time that DOE-MEMP is ready to exit, transfer of the property will be delayed and DOE-MEMP will have to conduct additional work to comply with regulatory requirements. Further, in order to leave any demolition debris onsite as fill, site regulators must concur that the material is clean. By increasing regulator involvement in disposition projects through its *Facility Binning Process*, DOE-MEMP has decreased the amount of time required to make facility disposition decisions. Regulators now spend less time reviewing and approving the plans and documentation associated with facility disposition projects. This regulator involvement has provided an additional benefit: DOE-MEMP does not have to guess what type and level of data the regulators require. Consequently, data collection is focused only on obtaining specific data required to make decisions and to implement facility disposition.¹

ISSUE

The Department of Energy Mound Environmental Management Project (DOE-MEMP) is working to exit the Mound site by 2005. In order to obtain approval for site closure, USEPA Region V and state regulatory agencies must concur that all facilities have been dispositioned in a manner that is protective of human health and the environment. Disposition, as referred to in this document, includes all activities taken to prepare a facility, once the facility's mission has ended, for its final end state, including dismantling of the facility, decontamination, demolition and disposal, recycling of materials, or transfer of the facility intact.

DOE-MEMP recognized that it is possible to decrease the cost and schedule of facility disposition projects by reducing the risk of regulator non-concurrence. If regulators do not agree that a facility is protective at the time that DOE-MEMP is ready to exit, transfer of the property will be delayed and DOE-MEMP will have to conduct additional work to comply with regulatory requirements. Further, in order to leave any demolition

debris onsite as fill, site regulators must concur that the material is clean. DOE-MEMP has also recognized that, because of the potential for decreased funding, it is necessary to involve the regulating agencies early to ensure that technical activities (e.g., characterization) are performed as efficiently as possible.

APPROACH

In order to safely disposition facilities as quickly and cost-effectively as possible, DOE-MEMP formed a core team of decision-makers for facility disposition projects. This core team, which includes representatives from DOE-MEMP, USEPA, and Ohio EPA, reaches consensus on all decisions necessary to determine the scope of disposition for each facility. By including regulators in decision-making from the start of the project, DOE-MEMP ensures, at each step of the evaluation process, that its disposition approach addresses regulator concerns and fulfills their requirements.

¹*Facility Disposition Lessons Learned from the Mound Site* provides detailed descriptions of each of the innovative facility disposition approaches developed by DOE-MEMP and presents guidelines that may be followed in implementing similar approaches at other sites.

In order to optimize data collection and expedite decision-making, the facility disposition core team has developed the Facility Binning Process. (See Figure 1.) Prior to the binning process, DOE-MEMP prepares a Building Data Package that includes all existing information on the level and extent of contamination in the building, physical conditions, etc.

If DOE-MEMP and the Miamisburg Mound Community Improvement Corporation (MMCIC), the future landlord of the site, determine that a building is not going to be reused, the building follows the building demolition process (See Figure 2). There are two possible paths for building demolition: demolition as a CERCLA removal action and demolition as a construction project. When environmental conditions in a building justify a removal action according to 40 CFR 300.415(b)(2), the building is demolished as a removal action under CERCLA.

If DOE and MMCIC determine that a building will likely be reused, the binning process is employed. The core team evaluates the Building Data Package and tours the facility in order to decide if:

1. ***The facility is protective of human health and the environment in its current state.*** The core team may agree that existing information is sufficient to demonstrate that the facility is protective and therefore conclude that no further assessment is required. DOE-MEMP then evaluates for cost-effectiveness to determine if the facility should be left intact or demolished for disposal.
2. ***The facility is not protective and action is required.*** Based on existing information, the core team may determine that the facility poses a threat to human health and the environment and therefore conclude that a response action is needed to achieve protectiveness. The core team then focuses on determining the most appropriate approach for dispositioning the facility and achieving protection.
3. ***Existing information is insufficient to determine if the facility is protective.*** If the core team is unable to determine whether or not the facility is protective based on existing information alone, it identifies the specific data needed to make this determination. The core team thereby identifies the data that will be required to support disposition prior to beginning characterization. This step eliminates unnecessary data collection; only data

needed to support decision-making and implement the approach are collected.

Once it is determined whether or not action is needed, the core team signs a recommendation documenting its consensus. Rather than characterizing the facility prior to evaluating existing information with the core team, as DOE-MEMP used to do, this upfront analysis and agreement allows DOE-MEMP to focus its additional data collection efforts. Data collection is only conducted when existing information is not sufficient to make decisions. Also, the focus of these data collection efforts has changed. Data are collected to answer specific questions identified by the core team, to ensure protectiveness, and to plan disposition activities. Data collection efforts are not conducted simply to characterize a facility in hopes of obtaining information that regulators may require.

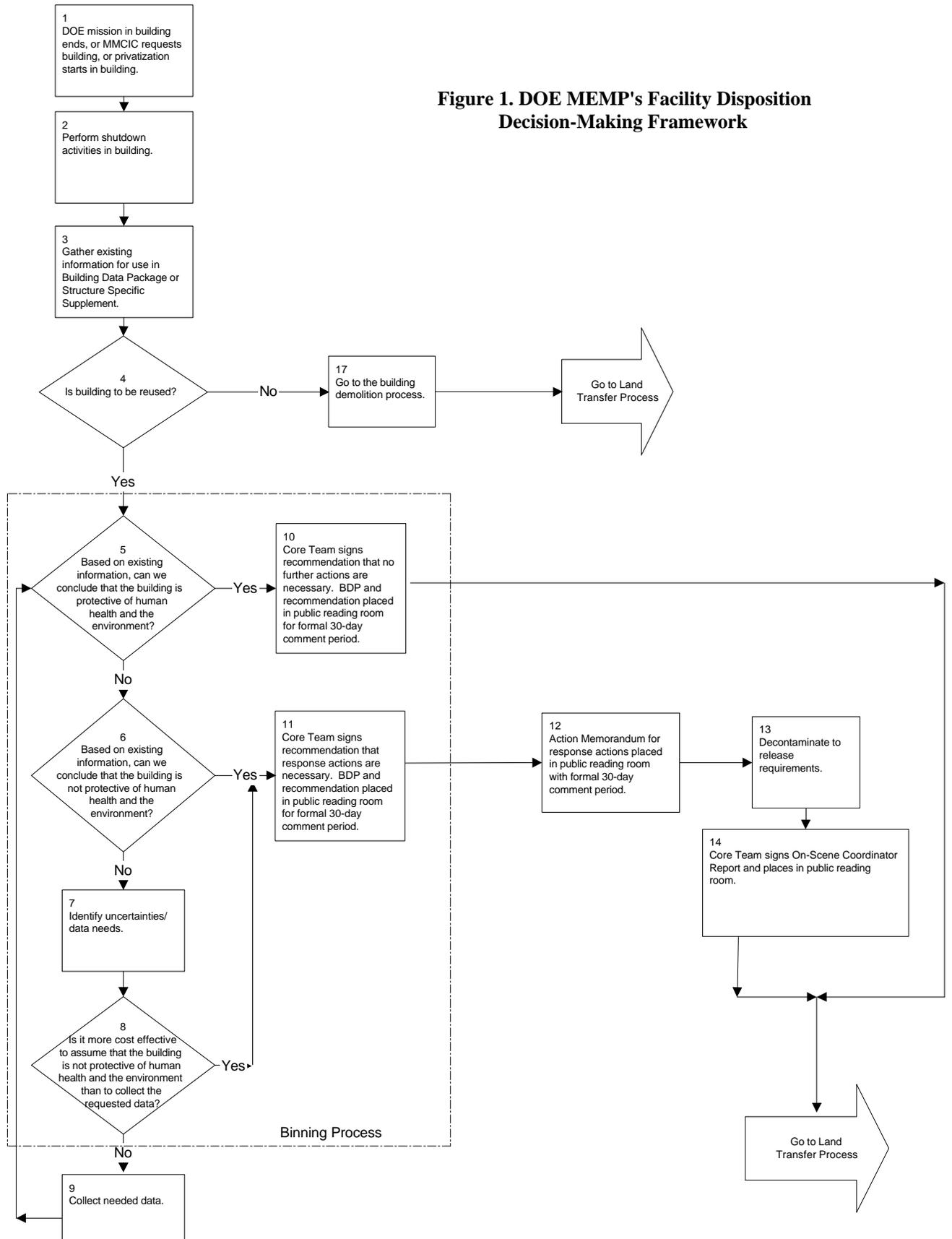
Under the Facility Binning Process, DOE-MEMP produces the documents that the core team determines are needed to record and explain its recommendations and places these documents in a reading room to allow for public review and comment.

BENEFITS

By increasing regulator involvement at the onset of facility disposition projects, DOE-MEMP has decreased the amount of time required to make facility disposition decisions. Because regulators are involved throughout the process, less time is needed for them to review and approve plans and documentation. Similarly, because regulators are involved in reviewing existing information and categorizing facilities at the beginning of the process, DOE-MEMP can focus additional data collection efforts on obtaining any needed data to make decisions and implement facility disposition. Finally, DOE-MEMP has been able to reduce its documentation of facility disposition projects because the regulators express the level of detail required. As of June 1999, DOE-MEMP has used this process to “bin” 21 buildings and estimates that the process has saved DOE approximately \$1.8 million.

For more information about how DOE-MEMP applies the binning process, please contact Art Kleinrath (DOE-Mound Environmental Management Project) at (937) 865-3597, Timothy Fischer (USEPA) at (312) 886-5787, Brian Nickel (Ohio EPA) at (937) 285-6468, or Richard Dailey (DOE-EH-413 at (202) 586-7117.

Figure 1. DOE MEMP's Facility Disposition Decision-Making Framework



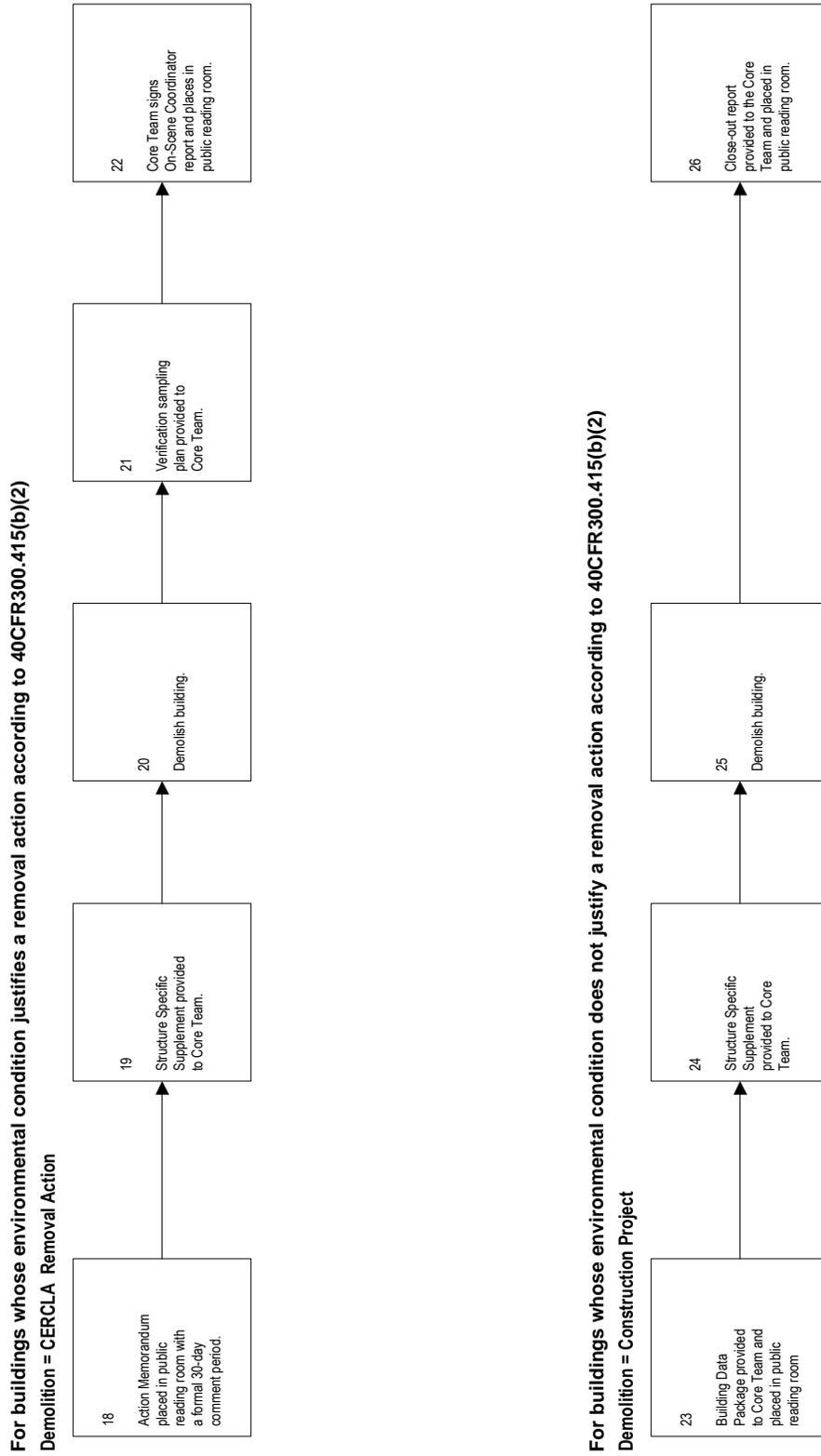


Figure 2. DOE-MEMP's Building Demolition Process

