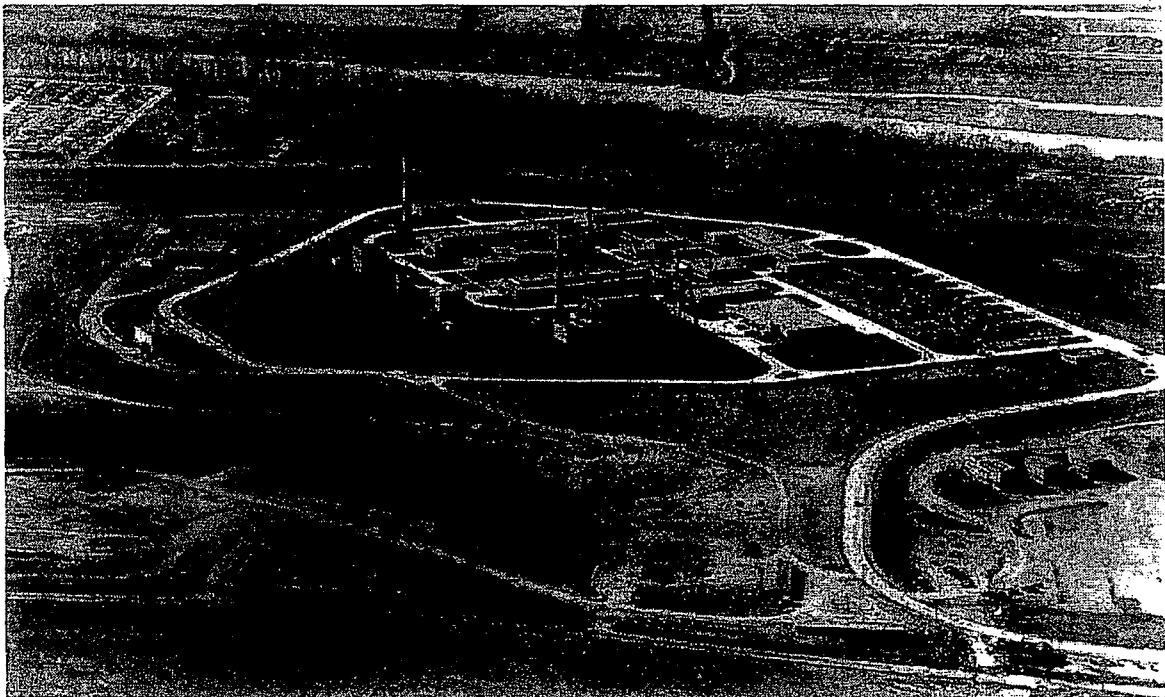


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MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN



THE MOUND FACILITY AS CONSTRUCTED (CA. EARLY 1949)

**PREPARED BY
BWXT OF OHIO
ENVIRONMENTAL SAFEGUARDS AND COMPLIANCE
FEBRUARY, 2000**

**CULTURAL RESOURCE MANAGEMENT PLAN
DEPARTMENT OF ENERGY MOUND FACILITY
MIAMISBURG, OHIO**

EXECUTIVE SUMMARY

Cultural resources are artifacts, sites, and/or historic properties that are important to history. This plan is based upon a DOE guidance document that incorporates the appropriate cultural resource management statutes, regulations, and guidelines into a prescribed format for a Cultural Resource Management Plan (CRMP).

There have been three cultural resources-related studies conducted at Mound. Two of these studies were archaeological surveys. The first study titled *An Archeological Survey of Portions of the Mound Facility, Montgomery County, Ohio* was conducted in 1987. The second study, conducted in 1991, was titled *Literature Review Update and Archeological Survey of the EG&G Mound Facility and Adjacent Areas, City of Miamisburg Miami Township, Montgomery County, Ohio*. The studies, when combined, address all of the plant property. Based upon field observations, surveys, and testing, the reports concluded that no areas of the site are eligible for placement on the National Register of Historic Places and that no further archaeological work is warranted.

The third study, conducted in 1998, was an evaluation of plant site buildings and mission activities. This study was titled *Determination of the Historical/Archeological Significance of the Mound Facility*. It was conducted in order to determine if any Mound buildings were eligible for placement on the National Register of Historic Places. Based upon their review of this study, the Ohio Historic Preservation Officer concluded that the only areas eligible for placement on the National Register were those structures associated with Mound's original mission of polonium production. This determination was based upon the role of these buildings in polonium processing, and because of the contributions of polonium processing to the early development of nuclear energy.

The 17 buildings identified as historically significant are:

1. A Building the Administration Building
2. B Building the Biological Building
3. C Building the Cafeteria Building
4. E Building the Electronics Laboratory Building
5. G Building the Garage Building
6. GH Building the Guard House Building
7. H Building the Change House and Laundry Building
8. HH Building the Hydrolysis Building
9. I Building the Isolated Laboratory
10. M Building the Maintenance Building
11. P Building the Power House
12. PH Building the Pump House
13. R Building the Research Building
14. SD Building the Sewage Disposal Plant
15. T Building the Technical Building
16. W Building the Warehouse
17. WD Building the Waste Disposal Plant

The planned demolition and/or transfer of these buildings under the Mound Exit Plan is considered to be an adverse impact as defined by historic preservation guidelines and regulations. Based upon requirements in the National Historic Preservation Act, DOE negotiated a Memorandum of Agreement (MOA) with the OHPO. The MOA stipulates the actions necessary to mitigate these impacts. Mitigation consists of the development of a documentation package including structural and process history and including historic

and current photographs of each of these buildings. These packages will preserve an accurate record of these buildings that can be used by members of the public interested in research and historic preservation. Based upon building function (process or administrative) there are two levels of documentation.

The administrative structures (A, C, G, GH, H, P, PH, SD, W, and WD Buildings) will be documented with packages developed using OHPO guidelines (including C and SD Buildings that have been demolished). These packages will include a written description of the building function, how it has evolved through time, engineering drawings, and historic and current or recent color photographs. This document will be submitted to the OHPO for archiving at their office. Packages for A, G, GH, P, PH, and W Buildings have been completed.

The process buildings (B, E, HH, I, M, R, and T Buildings) will be documented under the National Park Services Historic American Building Survey (HABS) guidelines, using level II documentation guidelines. An additional package, an overview package, will document site history, including the dates of initial development, the changes in plan and evolution of the plant, individuals associated with the plant. The overview package will also address historical events or developments associated with the plant. Currently packages are being prepared for B, E, I, and M Buildings. The site overview package is also being prepared. These packages will be submitted to the National Park Service for incorporation into the National Library of Congress; copies will also be submitted to the OHPO.

The CRMP also incorporates a program to evaluate project and site activities to determine if there will be any adverse impacts to known cultural resources by ensuring that Mound Exit Plan project and activities affecting the 17 original structures are consistent with the terms of the MOA.

The combined results of the 1987 and the 1991 studies conclude that no archaeologically significant cultural resources, artifacts, or sites exist on the Mound property. To verify the consistency of this conclusion with Mound Exit Plan projects, CRM staff will assess project work plans and project activities to verify that the conclusions presented by the 1987 and 1991 studies continue to apply. CRM staff will also monitor those activities to determine if any discoveries of a previously unidentified cultural resource occur. The CRMP includes the administrative processes that outline the procedures that must be implemented 1) in the event a cultural resource is discovered and 2) in the event something not covered by the MOA is impacted.

The CRMP also addresses the administrative requirements, such as stakeholder involvement, reporting, record keeping, and curation of artifacts as established by the cultural resource related regulations.

February 15, 2000

CULTURAL RESOURCE MANAGEMENT PLAN
DEPARTMENT OF ENERGY MOUND FACILITY
MIAMISBURG OHIO

TABLE OF CONTENTS

PREFACE	vii
ACRONYMS	viii
 SECTION 1 INTRODUCTION	 1-1
 SECTION 2 CRM GOALS	 2-1
2.1 Short-Term Goals	2-1
2.2 Long-Term Goals	2-1
 SECTION 3 EXISTING CONDITIONS	 3-1
3.1 Facility and Program Descriptions	3-1
3.1.1 Current Physical Setting	3-1
3.1.2 Current Operational Context	3-2
3.1.3 Potential Impacts to Cultural Resources	3-3
3.1.3.1 Past Practices	3-5
3.1.3.2 Planned Activities	3-9
3.1.4 Summary of Current Planning Procedure	3-10
3.1.5 Funding	3-12
3.2 Cultural and Historical Setting	3-12
3.2.1 Historic and Prehistoric Natural Environments	3-14
3.2.2 Prehistory and History	3-16
3.2.3 Traditional Lands and Resource Uses	3-16
3.2.4 Treaties, Executive Orders, and Land Grants	3-16
3.2.5 Recent Scientific Significance	3-16
3.3 Known Cultural Resources	3-16
3.3.1 Prehistoric Properties	3-17
3.3.1.1 Districts, Sites, and Structures	3-17
3.3.1.2 Objects	3-17
3.3.1.3 Other Important Properties	3-17
3.3.2 Historic Properties	3-17
3.3.2.1 Districts, Sites, Buildings, and Structures	3-17
3.3.2.2 Objects	3-22
3.3.2.3 Other Important Properties	3-22
3.3.3 Resources of Ethnic Importance	3-22
3.3.3.1 Sacred Sites	3-22
3.3.3.2 Traditional-Use Resources	3-22
3.3.3.3 Native American Cultural Items	3-23
3.3.3.4 Other Resources of Ethnic Importance	3-23
3.3.4 Properties of Recent Scientific Significance	3-23
3.3.4.1 Districts, Sites, Buildings, Structures, and Other Facilities	3-23
3.3.4.2 Objects	3-23
3.3.4.3 Other Properties	3-23
3.4 CRM Accomplishments	3-23

3.4.1	Cultural Resource Records and Reports	3-24
3.4.1.1	Cultural Resource Site Records	3-24
3.4.1.2	Cultural Resource Project Records	3-24
3.4.1.3	Other Cultural Resource Records	3-25
3.4.1.4	Cultural Resource Reports	3-25
3.4.1.4.1	Standardized Report Outlines	3-25
3.4.1.4.2	Report Library	3-25
3.4.2	Inventory	3-25
3.4.3	Excavation	3-25
3.4.3.1	Test Excavations	3-25
3.4.3.2	Large-Scale Excavations	3-25
3.4.3.3	Excavation Status	3-26
3.4.4	Structure and Facility Management	3-26
3.4.4.1	Structure and Facility Documentation	3-26
3.4.4.2	Structure and Facility Maintenance	3-26
3.4.4.3	Structure and Facility Mitigation	3-26
3.4.4.4	Structure and Facility Management Status	3-26
3.4.5	Laboratory Treatment	3-26
3.4.5.1	Processing	3-26
3.4.5.2	Analysis	3-27
3.4.5.3	Laboratory Treatment Status	3-27
3.4.6	Curation	3-27
3.4.6.1	Curation Facilities and Procedures	3-27
3.4.6.2	Curation Status	3-27
3.4.7	Preservation	3-27
3.4.7.1	Protection from Natural Forces	3-27
3.4.7.2	Protection from Human Forces	3-28
3.4.8	Research	3-28
3.4.9	Outreach	3-28
3.4.9.1	Activities on the DOE Site	3-28
3.4.9.2	Activities Not on the DOE Site	3-29
3.4.9.3	Outreach Status	3-29
3.4.10	Other CRM Accomplishments	3-30
3.5	Legal Compliance Accomplishments	3-30
3.5.1	NHPA, Executive Order 11593, and 36 CFR Part 800	3-30
3.5.1.1	NHPA, Sections 106 and 110(f), and 36 CFR Part 800	3-30
3.5.1.2	NHPA, Sections 110(a)-(e) and (g)-(j), and Executive Order 11593, Section 2	3-31
3.5.2	AIRFA	3-31
3.5.3	ARPA	3-31
3.5.4	NAGPRA	3-31
3.5.5	36 CFR Part 79	3-31
SECTION 4 CRM METHODS		4-1
4.1	Records and Reports	4-1
4.1.1	Cultural Resource Site Records	4-1
4.1.2	Cultural Resource Project Records	4-1

4.1.3	Other Cultural Resource Records	4-1
4.1.4	Cultural Resource Reports	4-1
4.1.4.1	Standardized Report Outlines	4-1
4.1.4.2	Report Library	4-1
4.2	Inventory	4-1
4.2.1	Archival Searches	4-1
4.2.2	Ethnographic Fieldwork	4-2
4.2.3	Structure and Facility Surveys	4-2
4.2.4	Archeological Surveys	4-2
4.3	Excavation	4-2
4.3.1	Test Excavations	4-2
4.3.2	Large-Scale Excavations	4-2
4.4	Structure and Facility Management	4-2
4.4.1	Structure and Facility Documentation	4-2
4.4.2	Structure and Facility Maintenance	4-2
4.4.3	Structure and Facility Mitigation	4-3
4.5	Laboratory Treatment	4-3
4.5.1	Processing	4-3
4.5.2	Analysis	4-3
4.6	Curation	4-3
4.7	Pr��servation	4-3
4.7.1	Natural Forces	4-3
4.7.2	Human Forces	4-3
4.7.2.1	Authorized Actions	4-3
4.7.2.2	Illegal Acts	4-3
4.8	Outreach	4-4
4.8.1	Activities on the DOE Site	4-4
4.8.2	Activities Not on the DOE Site	4-4
4.9	Interagency Information Exchange	4-4
SECTION 5 CRM PROCEDURES AND ADMINISTRATION		5-1
5.1	Compliance Procedures NHPA, Executive Order 11593, 36 CFR Parts 60, 63, 65, 79, and 800	5-1
5.1.1	Initiation of Compliance Procedures for Undertakings	5-1
5.1.1.1	Preconstruction Project Planning and Evaluation	5-2
5.1.1.2	Identification of Projects That May Affect Cultural Resources	5-2
5.1.1.3	Notification of CRM Staff	5-2
5.1.1.4	Consultation to Assess Information Needs	5-3
5.1.1.5	Authorizing, Funding, Planning, and Scheduling Archeological Surveys and Other Field Studies	5-3
5.1.2	Identification of Cultural Resources That May Be Affected	5-3
5.1.2.1	Identification of Known Cultural Resources	5-3
5.1.2.2	Surveys and Other Field Studies	5-3
5.1.2.3	Report Preparation and Review	5-3
5.1.3	Consultation When No Cultural Resources Are Identified	5-4
5.1.4	Evaluation of Cultural Resources Identified	5-4
5.1.4.1	Evaluation	5-4

5.1.4.2	Consultation	5-5
5.1.5	Assessing and Avoiding or Reducing Effects on Cultural Resources	5-5
5.1.5.1	Assessing Effects	5-5
5.1.5.2	Identifying Ways to Avoid or Reduce Effects	5-8
5.1.5.3	Consultation and Documentation	5-8
5.1.6	Unanticipated Discoveries of Cultural Resources	5-9
5.1.7	National Register of Historic Places Nominations	5-9
5.1.8	National Historic Landmarks Designation and Recognition	5-12
5.1.9	Future Location, Inventory, and Nomination of Cultural Resources to the National Register	5-14
5.2	ARPA Compliance Procedures	5-14
5.2.1	Increasing Public Awareness	5-14
5.2.2	Planning and Scheduling Archaeological Surveys	5-14
5.2.3	Reporting Suspected Violations	5-14
5.3	AIRFA Procedures	5-15
5.4	NAGPRA Compliance Procedures	5-16
5.4.1	Intentional Excavation and Removal of Native American Cultural Items	5-16
5.4.1.1	Consultation or Consent	5-17
5.4.1.2	Ownership and Right of Control Procedures	5-17
5.4.2	Inadvertent Discovery of Native American Cultural Items	5-18
5.4.2.1	Discovery	5-19
5.4.2.2	Disposition and Control	5-19
5.4.3	Inventory for Native American Human Remains and Associated Funerary Objects	5-19
5.4.3.1	Inventory Compilation	5-22
5.4.3.2	Consultation	5-22
5.4.3.3	Supplemental Documentation	5-22
5.4.3.4	Notification	5-22
5.4.4	Summary of Native American Unassociated Funerary Objects, Sacred Objects, and Cultural Patrimony	5-22
5.4.4.1	Summary	5-24
5.4.4.2	Consultation	5-24
5.4.4.3	Access	5-24
5.4.5	Repatriation of Native American Cultural Items	5-24
5.4.5.1	Repatriation of Culturally Affiliated Native American Human Remains and Associated Funerary Objects	5-26
5.4.5.2	Repatriation of Culturally Affiliated Native American Unassociated Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony	5-26
5.4.5.3	Repatriation of Culturally Unaffiliated or Uninventoried or Native American Human Remains and Funerary Objects	5-26
5.4.5.4	Sharing of Information	5-26
5.5	36 CFR Part 79 Compliance Procedures	5-26
5.5.1	Management and Preservation of Collections	5-27
5.5.1.1	Pre-existing Collections	5-27
5.5.1.2	New Collections	5-27
5.5.1.3	Administrative Records	5-28

5.5.2	Methods to Secure Curatorial Services	5-28
5.5.3	Methods to Fund Curatorial Services	5-29
5.5.4	Terms and Conditions of Contracts, Memoranda, and Agreements for Curatorial Services	5-30
5.5.5	Repository Standards	5-30
5.5.6	Use of Collections	5-32
5.5.6.1	Scientific and Educational Uses	5-32
5.5.6.2	Religious Uses	5-32
5.5.6.3	Terms and Conditions of Uses	5-33
5.5.6.4	Written Agreements for Use	5-33
5.5.7	Conduct of Inspections and Inventories	5-34
5.6	Protection Procedures	5-35
5.6.1	Natural Forces	5-36
5.6.1.1	Monitoring	5-36
5.6.1.2	Consultation	5-36
5.6.1.3	Restoration and Repair	5-36
5.6.2	Authorized Actions	5-36
5.6.2.1	Project Screening and Tracking	5-36
5.6.2.2	Monitoring	5-36
5.6.2.3	Consultation	5-37
5.6.2.4	Restoration and Repair	5-37
5.6.3	Illegal Acts	5-37
5.6.3.1	Detection	5-37
5.6.3.2	Investigation	5-37
5.6.3.3	Prosecution	5-37
5.6.3.4	Consultation	5-37
5.6.3.5	Restoration and Repair	5-37
5.6.3.6	Prevention	5-37
5.7	Treaty Rights Procedures	5-38
5.7.1	Technical Actions	5-38
5.7.2	Regulatory Compliance	5-38
5.7.3	Administrative Procedures	5-38
5.8	CRM Administration	5-39
5.8.1	Staffing and Contracting	5-39
5.8.2	Training	5-39
5.8.3	Permitting	5-40
5.8.4	CRM Facilities	5-40
5.8.5	Curation	5-40
5.8.6	Quality Assurance	5-41
5.8.7	Consultation on Administration	5-41
5.8.8	Other Administrative Activities	5-41

SECTION 6 PLAN ATTACHMENTS

6.0	Plan Attachments	6-1
	Attachment I Mound drawing FSE920931, Mound Site topographic map	6-2
	Attachment II Mound drawing FSE920921, Land use and land ownership around the Mound site	6-4
	Attachment III Mound site drawing from 1991, depicting 17 original structures	6-6
	Attachment IV Memorandum of Agreement Between the DOE and ACHP	6-8
	Attachment V Sources of Additional Information	6-13
	Attachment VI Applicability Matrix for CRMP Section 5 Components	6-16

TABLES AND FIGURES

Table 3-1	Planned Disposition of Mound Historic Structures	3-4
Figure 3-1	HABS Level II Documentation Standards for Polonium Mission Operational Structures at Mound	3-10

PREFACE

The U.S. Department of Energy (DOE) has stewardship responsibilities for managing the cultural resources remaining on the Mound site. BWXT of Ohio is responsible as site operator for managing Mounds remaining cultural resources. Shared interest in ensuring regulatory compliance, securing public trust, and protecting cultural resources has prompted the development of a Mound-specific Cultural Resource Management Program. The goal of the program is to identify and consolidate compliance actions associated with a number of statutory and regulatory requirements and to reflect DOE's and BWXT of Ohio's commitment to meet not only the letter but also the spirit of these laws and regulations.

One component of this program is the development of guidance documents that assist the Mound site in meeting CRMP policy goals. This document—*Mound Facility Cultural Resource Management Plan*—has been developed by the BWXT of Ohio Environmental Safeguards and Compliance group. Implementation of this document is intended to assure that the Mound site and the BWXT of Ohio Cultural Resources Management Program comply with the requirements set forth in the various executive orders, statutes, and implementing regulations governing the management of cultural resources.

ACRONYMS

ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
ARPA	Archeological Resources Protection Act
ASA	Administrative Services Act
ASM International	American Society for Metals International
BWO	Babcock & Wilcox of Ohio, Inc.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CRMP	Cultural Resource Management Plan
D&D	Decontamination & Decommission
DOE and U.S. DOE	U.S. Department of Energy
DOE FPO	U.S. Department of Energy Federal Preservation Officer
ESC	Environmental Safeguards and Compliance
EH	Assistant Secretary for Environment, Safety and Health
FBI	Federal Bureau of Investigation
FLETC	Federal Law Enforcement Training Center
FR	Federal Register
HABS	Historic American Building Survey
HABS/HAER	Historic American Building Survey/Historic American Engineering Record
IG	Inspector General
LLEA	Local Law Enforcement Agency
MAC	Mound Action Committee
MCC	Monsanto Chemical Company
MEMP	Mound Environmental Management Project
MMCIC	Mound Miamisburg Community Improvement Corporation
MOA	Memorandum of Agreement
MRC	Monsanto Research Company
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NFA	No Further Action
NPL	National Priorities List
NPS	National Park Service
OEPA	Ohio Environmental Protection Agency
OHPO	Ohio Historic Preservation Officer
PMS	Project Management System
PRS	Potential Release Site
PSO	Program Secretarial Officer
RD/RA	Remedial Design/Remedial Action
RREM	Residual Risk Evaluation Methodology
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RTG	Radioisotope Thermoelectric Generator
SAA	Single Audit Act
SHPO	State Historic Preservation Officer
USC	United States Code
US EPA	United States Environmental Protection Agency

MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN

SECTION 1

INTRODUCTION

**CULTURAL RESOURCE MANAGEMENT PLAN
DEPARTMENT OF ENERGY MOUND FACILITY
MIAMISBURG, OHIO**

SECTION 1--INTRODUCTION

This CRMP has been prepared in accordance with the DOE Guidance Manual titled *Environmental Guidelines for Development of Cultural Resource Management Plans*, Final Report (DOE/EH-0501, August 1995). As such, it includes six sections that address the following areas. Section 1 is an introduction. Section 2 discusses the overall goals of the CRMP. Section 3 discusses Mound history and its relationship to cultural resources management focusing on accomplishments and existing conditions. The next section, Section 4, provides an overview of cultural resources management methodologies. Section 5 relates the methodologies in Section 4, with the regulatory requirements, and results in a presentation of cultural resources management procedures and administration. Section 6 includes CRMP attachments.

The purpose of the CRMP is to establish a process for addressing cultural resources management issues at the site (e.g., the original 17 structures constructed to support the polonium mission). It also serves as a set of guidelines that will be used by the Environmental Safeguards and Compliance group for addressing possible cultural resources management issues that might be identified as Mound proceeds with its mission of cleanup and transitioning of usable structures and processes to the community. The CRMP organization is based upon the outline provided in the DOE guidance manual *Environmental Guidelines for Development of Cultural Resource Management Plans*, Final Report (DOE/EH-0501, August 1995). As such, it also includes requirements for monitoring of projects, an outreach program, and other elements of the CRMP as outlined in the DOE guidance.

Cultural resources management at Mound before the development of this plan had been restricted to three studies. First, there was a study in 1987, followed by a second study in 1991. The purpose of these two studies was to identify any archaeological artifacts or sites associated with unimproved properties such as the South Property, the Burn Area hillside, and the Miami-Erie Canal Area. Unimproved properties were defined in these studies as those areas where development had not disturbed the surface soils. Both of these studies concluded that the plant site and the adjacent Miami-Erie Canal, in general, including the disturbed areas where plant buildings had been constructed, did not present a high potential for the discovery of archaeologically significant resources.

The third study was conducted in 1998, in order to assess Mound structures to determine if they may be eligible for placement on the National Register of Historic Places. Based on this study, the OHPO concluded that the original 17 structures are of historical significance. Subsequently, DOE and the OHPO began negotiating a MOA to mitigate the potential negative impacts to these structures that may be caused by their transfer or demolition as outlined by the MOA. Mitigation, as defined by the MOA consists of preparing documentation packages for each of the historically significant buildings. Based upon this, ESC is currently preparing documentation packages for the original 17 structures at the site in order to document their significance, mission history, and structural history.

In addition to these studies, the Mound site was identified as a National Historic Landmark, in recognition of its contributions to the nuclear power industry. This designation is an honorary classification bestowed by ASM International for an industry's contribution to the development of engineering and science. ASM International is a professional engineering society.

Section 2 of the CRMP includes a listing of short- and long-term goals as they relate to cultural resource management. This section describes Mound's goals as they relate to the management of identified cultural resources, and their relationship with site cleanup. These goals also include Mound's goals for addressing

cultural resource issues that may arise as Mound addresses site cleanup. These goals stress regulatory compliance with the NHPA and the implementing regulations as well as compliance with the related archaeological acts and their implementing regulations.

Section 3 provides a summary of plant history and plant conditions as they relate to cultural resource management. It includes a description of what Mound has done thus far to address its cultural resources issues, including a description of the content of the MOA developed between the OHPO and the DOE.

Section 4 details the specific regulatory requirements for compliance with the cultural resources management resource laws and regulations, focusing on an explanation of the requirements for a CRMP, including records management, reporting, and inventorying. This section also prescribes the requirements for the management of excavated resources, structure and facility management, laboratory analyses, curation, and a public outreach program.

Section 5 provides, in detail, a set of regulatory based processes or procedures for addressing cultural resource issues. It includes detailed discussions of the regulatory requirements for evaluating and placing historic sites on the National Register, for designation as a historical landmark, and the evaluation of archaeological issues. It also includes procedures for compliance with the NHPA, ARPA, AIRFA, NAGPRA, and their implementing regulations. Section 5 also includes procedures for staffing, contracting, training, permitting, curation, consultation, and quality assurance for the cultural resources management program. Section 5 also summarizes the programs in place at Mound and how they relate to the requirements.

Section 6 is a collection of CRMP attachments, and includes maps and drawings referenced in the CRMP. Section 6 also includes a list of documents that provide additional information pertaining to the studies of cultural resource related issues at Mound.

MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN

SECTION 2

CRM GOALS

SECTION 2 CULTURAL RESOURCE MANAGEMENT GOALS

This section describes and discusses the goals of BWXT of Ohio's cultural resources management program at the Mound facility. The DOE guidelines include the following objectives for cultural resources management programs:

- (1) achieve regulatory compliance;
- (2) ensure that DOE stewardship responsibilities are being met;
- (3) enhance DOE managers' awareness of and appreciation for cultural resource preservation and improve the effectiveness of their decision making;
- (4) promote outreach with traditional people who are the stakeholders in local, natural, and cultural resources and ensure their access to these resources; and
- (5) adopt an approach to protection of archaeological resources that is consistent with the Department of the Interior's "National Strategy for Federal Archaeology."

2.1 Short-Term Goals

Mound's primary mission as a CERCLA site is to cleanup the Mound site in a manner that is protective of human health and the environment and to transition economically reusable buildings, structures, processes, and other resources to the MMCIC. While implementing this mission BWXT of Ohio intends to identify and protect cultural resources in a manner that is consistent with the NHPA, DOE, and NPS guidelines, to the extent that is practicable while providing for protection of human health and the environment. Short-term management goals identified for both known and unknown cultural resources at Mound include:

- Develop a MOA to address issues related to the original 17 structures that have been identified by the OHPO as being historically significant.
- Implement the MOA, ensuring protection of human health and the environment and completion of Mound's mission of transitioning economic valuable buildings and processes to the MMCIC.
- Develop and implement a Cultural Resource Management Plan and establish a cultural resources management program. Both the CRMP and the cultural resources management program would increase awareness of cultural resource issues at Mound through worker education, outreach programs, and implementation of the programs as outlined in Section 5 of this CRMP.
- Implement a program to assess ongoing and planned projects, in order to be protective of cultural resources (including any potential for archaeological and natural finds). This process would include determinations based upon reviews of project plans, training of project staff, field monitoring and other pro-active measures as described in Section 5 to identify and protect unknown and known cultural resources.

2.2 Long-Term Goals

BWXT of Ohio's mission at the Mound site is a short-term cleanup contract. Under this contract, the facility is to be cleaned up in a manner that is protective of human health and the environment. Economically usable facilities, structures, processes, and resources will subsequently be transitioned to the MMCIC for reuse and economic development. Under this exit plan, both the presence and stewardship of the DOE will diminish over time as ownership of more and more of the site properties are transferred to the MMCIC. In light of this, the primary long-term goal related to the management of cultural resources is to ensure that all property ownership transfers are consistent with the requirements as identified in the NHPA, the implementing regulations, and the MOA.

MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN

SECTION 3

EXISTING CONDITIONS

SECTION 3 EXISTING CONDITIONS

The purpose of this section of the CRMP is to provide an overview of past cultural resource related accomplishments and existing conditions at Mound. As such, the sections that follow discuss Mound site activities as related to cultural resource management, and present the available information in the recommended DOE format. This format is presented in the DOE guidance manual DOE/EH-0501, Final Report, *Environmental Guidelines for Development of Cultural Resource Management Plans*, August 1995, U.S. Department of Energy Office of Environmental Policy and Assistance.

3.1 FACILITY AND PROGRAM DESCRIPTIONS

Section 3.1 includes a discussion of the Mound site physical setting, the Mound site's current operational context, and the impacts of those factors on the site's cultural resources. Past practices and planned activities are also discussed.

3.1.1 Current Physical Setting

The predominant geographical feature in the five-county area surrounding Mound is the Great Miami River, which flows northeast to southwest through Miamisburg. The river valley is highly industrialized. The remainder of the region is predominantly farmland, dotted with light industry and small residential communities.

The Mound plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The Mound plant facility is situated on 306 acres of land that has included as many as 140 permanent buildings having over 1.4 million square feet of floor space. The number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished.

To the west is a Norfolk Southern Railroad line and the north-south trending Miami-Erie Canal. The northern property boundary abuts the residential area of Miamisburg, Ohio. Mound Road parallels and serves as the boundary for the northern half of the eastern perimeter of the facility then veers east, away from the southern half of the eastern boundary. A public golf course (belonging to the City of Miamisburg), the Miamisburg Mound Memorial Park, agricultural fields, residential lots, and vacant wooded lots border the facility along Mound Road. Benner Road forms the southern property line of the Mound plant, with agricultural fields and farms occupying the lands beyond.

Mound is situated on a high area overlooking Miamisburg, the Great Miami River, and the river plain area to the west. The property is characterized by two hills divided by a minor northeast-southwest trending valley.

The Manhattan Engineering District purchased the original site consisting of 182 acres in various tracts in 1946. A 124-acre tract, designated as the South Property, acquired in 1981, is an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired for future expansion, and to serve as a buffer. Portions of this property have been used as a staging area and parking area for contractors working on-site. Most of the site buildings are located on the northwest hill area (Main Hill). A smaller group of buildings is located in the southeast hill area (SM/PP Hill), and several buildings are located in the valley and on the valley slopes.

Buildings on the northwest hill, or Main Hill area, historically included administrative offices, a former machine tool and maintenance shop, nuclear and advanced device production and development facilities, a cafeteria, a powerhouse, and other utilities. Buildings in the valley area included former explosive production and test firing facilities, explosive storage bunkers, isotope separation facilities, waste storage units, sanitary treatment facilities, warehouses, and offices. The southeast hill, or SM/PP Hill, has been occupied by the

former plutonium processing facilities. Many of these facilities have been decommissioned and are undergoing cleanup under the Mound Exit Plan.

Bedrock bluffs overlooking the Great Miami River dominate Mound's topography. The rugged topography is a remnant of glacial erosion where glacial outwash channels formed gravel-filled valleys and the remaining bedrock highs formed hills, bluffs, and uplands. The bedrock in the Mound plant vicinity consists of mid-Ordovician shallow water deposits (i.e., interbedded lenticular limestone and shale) bearing shallow water fossils, typical of the surrounding area.

A topographic map of the Mound site property with a contour interval of 2 feet (Drawing FSE920931) is included in Section 6 (Attachment I). Drawing FSE920921 (Attachment II), also in Section 6, summarizes the land use and property ownership surrounding the site.

3.1.2 Current Operational Context

With the reconfiguration of the DOE's nuclear complex, Mound's mission shifted from its multifaceted role in support of the nuclear complex, to site cleanup. Cleanup is being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in preparation for the transition of reusable buildings and processes to the MMCIC.

The Mound plant site was identified as a contaminated site on the National Priority List (NPL) under CERCLA (Superfund) in 1989. The Mound plant site was listed on the NPL as a consequence of historic disposal practices including use of a commercial/industrial landfill, various spills, and the use of underground storage tanks, resulting in the contamination of soils and drinking water. The identified contaminants of concern were total volatile organic compounds, calcium cyanide, copper cyanide, plutonium and its isotopes and compounds, specifically plutonium-238, and uranium its isotopes and compounds.

The methodology for cleaning up the Mound site in order to transition it to the MMCIC is governed by the Mound 2000 process. The development and implementation of the Mound 2000 process is discussed below.

The Mound 2000 Process

The DOE, the US EPA, and the OEPA had originally planned to address the plant's environmental restoration issues under a set of Operable Units, each of which would include a number of Potential Release Sites. For each Operable Unit, the site would follow the traditional CERCLA process: a RI/FS, followed by a RD/RA followed by a ROD. After initiating remedial investigations for several Operable Units, the DOE and its regulators realized during a strategic review in 1995 that, for Mound, the Operable Unit approach was inefficient. The DOE and its regulators agreed that it would be more appropriate to evaluate each PRS or building separately, use removal action authority to remediate them as needed, and establish a goal for no additional remediation other than institutional controls for the final remedy documented in the Record of Decision. To evaluate any residual risk after all removals have been completed, a residual risk evaluation would be conducted to ensure the block or parcel is protective of human health for industrial reuse. This process was named the Mound 2000 process.

The Mound 2000 process established a "Core Team" consisting of one representative from the MEMP, US EPA, and OEPA. The Core Team evaluates each of the potential contamination areas and recommends the appropriate response. The Core Team uses process knowledge, site visits, and existing data to determine whether or not any action is warranted concerning the possible problem area. If a decision cannot be made, the Core Team identifies specific information needed to make a decision (e.g., data collection or investigations). The Core Team also receives input from technical experts as well as the general public and/or public interest groups. Thus, all stakeholders have the opportunity to express their opinions or suggestions involving each potential problem area. The details of this process are explained in the "Work Plan for Environmental Restoration at the Mound Plant, The Mound 2000 Approach."

The Mound property is divided into eighteen "release blocks" which are contiguous tracts of property designated for transfer of ownership. These eighteen release blocks may be reconfigured to accommodate transfer of Mound property for economic development.

The Mound 2000 Residual Risk Evaluation Methodology (RREM), Mound Plant, Final, Revision 0, January 6, 1997, was developed as a framework for evaluating human health risks associated with residual levels of contamination. The RREM is applied to a release block once necessary remediation has been completed, and the Core Team has agreed that the remaining PRSs or buildings in the release block warrant no further assessment (NFA). Once an area is determined to be NFA, the area is determined to meet the cleanup criteria established under CERCLA, and no further actions are considered necessary. Once environmental concerns have been adequately addressed by the Core Team, a residual risk evaluation is performed. The evaluation documents that the release block is acceptable for industrial redevelopment.

A ROD will be generated for each piece of property to be transferred. The ROD will document the most appropriate remedy that meets statutory requirements and ensures protection of human health and the environment. After a ROD for each piece of property transferred is finalized, DOE will submit to US EPA and OEPA documentation that shows the property meets CERCLA 120 (h) (3) requirements. This documentation must be sent to the Administrator of US EPA for concurrence on the property transfer. After concurrence is obtained, the title of the property may be formally transferred. Prior to acceptance of the deed for any discrete parcel, the Buyer shall acknowledge that it has reviewed the existing environmental reports provided by DOE for the Mound Facility. Acceptance of the deed thereby acknowledges and commits the Buyer to abiding by institutional controls specified in the ROD.

3.1.3 Potential Impacts to Cultural Resources

This section includes two parts. First, a summary discussion of past plant site practices which have been determined to have a potential impact upon cultural resources. Second, a discussion of planned site activities.

The discussion of past practice focuses on Mound's original mission, polonium production. The discussion provided is based upon a determination presented in a report titled *Determination of the Historical/Archeological Significance of the Mound Facility* (BWO, 1998). This report evaluated all of the elements of Mound's various missions, including the polonium production mission that was initially conducted at Mound. This report concluded that buildings associated with Mound's later mission activities including plutonium production, heat source program support, explosives manufacture, and tritium production would not meet the listing criteria of age and were not historically significant. The polonium mission and the structures associated with that mission were evaluated for their eligibility because they met the "50-years-old" eligibility criteria. Based upon this evaluation, the 1998 report concluded that these activities also would not meet the uniqueness of mission criteria as required in the NHPA. This report was reviewed by the OHPO, who determined that the structures associated with the polonium mission were historically significant. DOE and the OHPO have developed an MOA to mitigate negative impacts to these structures. The MOA is included as Attachment IV, in Section 6. The buildings identified as historically significant are:

- A Building the Administration Building
- B Building the Biological Building
- C Building the Cafeteria Building
- E Building the Electronics Laboratory Building
- G Building the Garage Building
- GH Building the Guard House Building
- H Building the Change House and Laundry Building
- HH Building the Hydrolysis Building
- I Building the Isolated Laboratory

- M Building the Maintenance Building
 - P Building the Power House
 - PH Building the Pump House
 - R Building the Research Building
 - SD Building the Sewage Disposal Plant
 - T Building the Technical Building
 - W Building the Warehouse
 - WD Building the Waste Disposal Plant

Table 3-1 notes the planned dispositioning of each of Mounds historic structures:

TABLE 3-1—PLANNED DISPOSITION OF MOUND HISTORIC STRUCTURES

BUILDING	PLANNED DISPOSITION UNDER THE MOUND EXIT PLAN	PLANNED PRESERVATION RELATED ACTIVITIES
A	D&D and transfer structure to MMCIC	Document structure with the OHPO and transfer structure without historic preservation related deed restrictions
B	Demolish and transfer the underlying property to MMCIC	Document structure using HABS Level II documentation standards and transfer site without historic preservation related deed restrictions
C	Demolished	Document structure with the OHPO and transfer site without historic preservation related deed restrictions
E	Demolish and transfer the underlying property to MMCIC ¹	Document structure using HABS Level II documentation standards and transfer site without historic preservation related deed restrictions
G	D&D and transfer structure to MMCIC	Document structure with the OHPO and transfer structure without historic preservation related deed restrictions
GH	D&D and transfer structure to MMCIC	Document structure with the OHPO and transfer structure without historic preservation related deed restrictions
H	Demolish and transfer the underlying property to MMCIC	Document structure with the OHPO and transfer site without historic preservation related deed restrictions
HH	Demolish and transfer the underlying property to MMCIC	Document structure using HABS Level II documentation standards and transfer site without historic preservation related deed restrictions
I	Demolish and transfer the underlying property to MMCIC	Document structure using HABS Level II documentation standards and transfer site without historic preservation related deed restrictions
M	Demolished and transfer the underlying property to MMCIC ²	Document structure using HABS Level II documentation standards and transfer site without historic preservation related deed restrictions
P	D&D and transfer structure to MMCIC	Document structure with the OHPO and transfer structure without historic preservation related deed restrictions
PH	D&D and transfer structure to MMCIC	Document structure with the OHPO and transfer structure without historic preservation related deed restrictions
R	Demolish and transfer the underlying property to MMCIC	Document structure using HABS Level II documentation standards and transfer site without historic preservation related deed restrictions
SD	Demolished	Document structure with the OHPO and transfer site without historic preservation related deed restrictions

¹ Demolition of E Building started in January 2000.

² Demolition of the M Building structure was completed in November 1999; the slab was removed in early 2000.

BUILDING	PLANNED DISPOSITION UNDER THE MOUND EXIT PLAN	PLANNED PRESERVATION RELATED ACTIVITIES
T	D&D and transfer structure to MMCIC	Document structure using HABS Level II documentation standards and transfer structure without historic preservation related deed restrictions
W	D&D and transfer structure to MMCIC	Document structure with the OHPO and transfer structure without historic preservation related deed restrictions
WD	Demolish and transfer the underlying property to MMCIC	Document structure with the OHPO and transfer site without historic preservation related deed restrictions

3.1.3.1 Past Practices

According to the DOE guidelines for a CRMP, this subsection should focus on geographic areas of the facility, program, or lands that have been used by a program and that have experienced previous ground-disturbing activities (e.g., grading, filling, tree planting, and building demolition). As noted in the DOE guidelines, this section should also describe in detail (1) locations by disturbance type, (2) current use of the disturbed lands, and (3) information management tools for overall facility or program management (e.g., data compilations, computer databases, and geographic information systems). Also this section should describe, in general terms, the impact that past practices have had upon cultural resources.

Site History

In the summer of 1942, the United States Army organized the Manhattan Energy District for the purpose of developing an atomic bomb. This undertaking became known as the "Manhattan Project." In 1943, the director of Monsanto Chemical Company (MCC) Central Research Department in Dayton, Ohio accepted the responsibility for chemistry and the metallurgy of radioactive polonium-210, and the Dayton Project was launched. MCC operated five (5) units of the Dayton Project at various locations around the Dayton area. For Dayton Unit V (more formally known as the Dayton Engineer Works under the Dayton Engineer District) a 182-acre site on the outskirts of the town of Miamisburg, Montgomery County, Ohio, was selected in 1946 as the location for a permanent research facility in support of the Manhattan Project. In July 1946, the Monsanto Research Corporation (MRC), a subsidiary of MCC, engaged the firm of Giffels and Vallet of Detroit, Michigan, to design the plant.

Construction of the new facility, with an original plan for fourteen buildings began in February 1947 by Maxon Construction Co., Dayton, Ohio. Mound Laboratory was the first permanent facility of the Atomic Energy Commission, which succeeded the wartime Manhattan Engineering District. Contractor personnel occupied the Mound Plant in May 1948. Operations involving radionuclides began in January 1949.

The site selected was actually farmland, the bulk of which was owned at the time by William Mobley, as well as several adjacent tracts of land. The site was constructed at this location for several reasons. A reasonably flat plateau of considerable size existed that could be leveled off at a reasonable cost for the site above ground. Adjacent to the plateau was a hillside of considerable height that was good for location of underground buildings. Soil conditions were good for the proposed construction. Drainage from the buildings and certain process equipment could be located on the hillside to utilize gravity flow with effluent passing to the Great Miami River. Location would permit an excellent system of roads with a good entrance off existing public roads.

In August of 1946, a crew of men from the United States Army Engineering offices in Cincinnati took boring samples on the hills and ravines west of Mound Road and south of the Mobley residence in preparation for construction of the site.

A month later the War Department announced that contracts for the construction had been awarded to the Maxon Construction Company. Temporary offices were established in a tobacco warehouse at Second Street and Linden Avenue. C.A. Budnik was the project manager of what was then known as Dayton Unit

V. He also noted that besides the necessary work force, individuals would be employed as typists, stenographers, and engineers. An effort was being made to employ individuals in the Miamisburg, West Carrollton, Germantown, and Franklin area.

On January 26, 1947, Dr. Hochwalt, Central Research Director, Monsanto Research Company, met with Miamisburg civic leaders and explained that operations at Unit 3 on Runnymede Road and Unit 4 at Bonebrake Seminary would be combined at the new location in Miamisburg. He explained that, of the 400 employees, about 95 percent already had homes locally. He also announced that Malcolm R. Haring, former chemistry professor at the University of Maryland, would be the facility's first director.

By January 1947, the W.F. Mobley farm was sold to the government for \$32,500, which included 89 acres and all of its buildings. It was also understood, at that time, that 34 acres owned by Arthur Sorrell, 20 acres owned by John Adams, and 17 1/2 acres owned by Earl C. Hoerner, were also involved.

In March 1947, it was reported that the work force was up to 460 employees. Leveling and smoothing of the land, mainly in preparation for construction work of the buildings, was underway. The buildings were scheduled to be occupied by the end of the year. The historic Indian Mound, for which the plant was later named, was closed off to the general public while construction was underway, apparently for national security reasons. At the same time, signs were posted warning against the use of cameras for photographing of the site or construction project. Meanwhile, an additional seven and a half acres of land were purchased from R.N. Heist of Mound Avenue.

Construction work continued through the remainder of 1947, but on January 4, 1948, a cave-in on the construction site left one man seriously injured and a half-dozen others were hospitalized with assorted injuries. In March 1948, it was announced that 80 percent of the work had been completed and the construction employment, which had reached a peak of 2,700, had been reduced sharply to 1,000. At that time, all but two of the planned buildings (17 were eventually built) were completed and finishing touches were being put on these buildings. The work of installing equipment in the building was beginning and administrative and clerical workers were expected to move into the facility by mid-March. It was noted in the March 11, 1948, edition of the Miamisburg News, "Much has been accomplished on Mound Hill within the past year. The entire landscape south of the city has changed. The rolling hills and deep ravine have given way to a setting of brick buildings and towering stacks, and to view the scene after dark from hills surrounding the location gives the impression that a new city has been built." With this announcement, it was also learned that the gates of Miamisburg Mound State Park would be re-opened to the public.

Polonium Production Summary

The polonium process activities that began at the Dayton Unit operations during the Second World War were transferred to the new Mound Laboratory in January 1949. Mound Laboratory was designed to be self-sufficient, including all of the necessary facilities to support the polonium production process. Polonium remained as the focal point of production into late 1949, when other radionuclides were studied as possible substitutes for polonium.

In 1954, Mound began a program using polonium-210 to convert nuclear energy to usable electric energy. This application of nuclear energy, using a thermoelectric principle, was demonstrated that same year. In February, Mound received a directive to fabricate a polonium-powered model steam-electric plant. A model was built and demonstrated in 1954. In 1956, a conceptual design to produce a mercury boiler fueled with polonium was described. By 1958, an RTG powered by polonium-210 was built.

The power density of polonium is unique and made it attractive as a power source. One pound of polonium-210 occupies a volume of approximately 3 cubic inches and produces heat at the rate of 3.6×10^6 British Thermal Units (BTUs) per minute or about 64 kilowatts of electric power. With a thermal energy output of 120 watts per gram polonium-210 was selected initially for use in the RTG. Known as SNAP, these generators convert the thermal energy generated by radioactive decay to electrical energy. The first SNAP-3A, fueled with polonium-210, provided power to a satellite radio transmitter. The use of satellites

powered by SNAP for global communication was first demonstrated under President Eisenhower in 1961, at which time the President's peace message was broadcast via a satellite containing a radio transmitter powered by the SNAP-3A RTG.

Because polonium-210 has a short half-life (138 days), its usefulness was limited for application on long duration satellite and space probe missions. Polonium research and production at Mound was eventually phased out in 1971.

Polonium Project Description

Prior to 1944, polonium had not been isolated in pure form or in any appreciable quantity. Therefore, any program involving the recovery, purification, and fabrication of polonium metal from a variety of sources required an understanding of the chemical and physical properties and the metallurgy of polonium-210. The Dayton Project's goal was to develop an understanding of the properties of polonium and its metallurgy.

Initially, the recovery of polonium was attempted from naturally occurring sources such as lead-containing wastes from uranium, vanadium, and radium refining operations. Upon investigation, it became apparent that sufficient quantities of polonium could not be recovered from these sources without processing prohibitively large amounts of material. To obtain polonium in the quantities needed, other approaches to its production were investigated, and the transmutation of bismuth metal to polonium-210 by neutron irradiation was selected for production scale operations.

Process Description

In January 1949, the polonium operations were transferred from Dayton to Mound. At this time, the process for producing polonium-210 had been decided upon. Polonium-210 would be produced by the transmutation of bismuth by neutron bombardment. All polonium processing activities at Mound involving irradiated bismuth were conducted on the first and second floors of T Building. Initially, bismuth, in the form of 12-inch by 3-3/4-inch by 3-3/4-inch bricks weighing 58 pounds, was irradiated in the Clinton reactor at Oak Ridge, Tennessee. Subsequently, bismuth metal was cast into slugs and inserted into aluminum cans. Aluminum covers were welded to the cans, sealing in the bismuth metal. This operation and the neutron irradiation were performed at the Hanford operations facility in Richland, Washington, where a higher neutron flux was achievable.

After irradiation, the aluminum cans containing bismuth were shipped to Mound in lead casks that provided radiation shielding. Upon arriving at Mound, the aluminum cans were removed from the casks and stored in a pool of water that provided further shielding until they were removed for use in the polonium recovery process. The pool was located on the second floor of T Building. The lead casks were surveyed for radiation and, if necessary, were rinsed with water to remove surface contamination. They were then shipped back to the Hanford facility for reuse. Numerous approaches to decanning were investigated including mechanical cutting, chemical dissolution, and melting the bismuth in a furnace and pouring it out of the can. In those instances where the aluminum can was separated from the bismuth slug, the aluminum can was shipped to Oak Ridge for burial.

In the polonium production process, the separation of the bismuth slug from the aluminum can was accomplished by chemical dissolution. This occurred on the second floor of T Building where the can was dissolved in a 17 percent hydrochloric acid bath. The bismuth slug did not react with hydrochloric acid and was removed from the bath and washed with water to prepare it for dissolution. The aluminum used in fabricating the can and the bismuth contained impurities such as iron, silicon, cobalt, lead, tin, zinc, silver, chromium, vanadium, and gallium. Upon irradiation, these impurities produced gamma-emitting isotopes that, at the time of bismuth processing, created a radiation health hazard.

The processing techniques for bismuth and polonium varied depending on the required form and purity and because of the research and development nature of this program. Most bismuth research and development

was performed in the R Building. As the knowledge of physical and chemical properties grew, it was applied to production techniques to meet and improve product purity requirements.

Chemical Separation of Polonium from Irradiated Bismuth

The separation of polonium-210 from bismuth took place on the second floor of the T Building. The process began with the dissolution of the bismuth metal slug in a mixture of nitric and hydrochloric acids. During this step, gaseous nitric acid, nitrogen dioxide, and hydrogen gas were generated. These gases were passed through a caustic scrubber, and the acidic components were neutralized before being exhausted through the high efficiency particulate air (HEPA) filter bank to the building's stack. After the bismuth slug was completely dissolved, the resulting solution was denitrated by the addition of formic acid and heating the solution to 100°C.

The next step in the process involved the separation of polonium from the polonium-bismuth solution. The polonium was recovered from the mixture by passing the solution over a bed of 140- to 200-mesh bismuth metal powder. The polonium was deposited on the bismuth powder and the filtrate was sent to the HH Building where it was processed as a waste. The aluminum chloride and bismuth chloride wastes were processed in the HH Building until other commitments for space required moving the waste treatment facility to the T Building in 1959. The polonium waste treatment facility was set up on the first floor of T Building, but the waste continued to be referred to as HH sludge.

The bismuth-polonium powder was redissolved in a mixture of nitric and hydrochloric acid and the resulting solution de-nitrated with formic acid. The denitrated solution was again passed over bismuth powder, and polonium was reduced on the surface of the bismuth powder. The supernatant solution, containing some polonium, was returned for recycling to the previous concentration step in the process. When a polonium concentration of approximately 15,000 parts per million (ppm) was reached, the polonium-bismuth powder was dissolved in hydrochloric acid catalyzed by hydrogen peroxide. The polonium in this solution was reduced using stannous chloride, and the polonium was filtered from the solution and washed with stannous chloride and a dilute hydrazide hydrogen chloride solution. After the polonium metal was washed, it was redissolved using hydrochloric acid and hydrogen peroxide. This solution was then treated with ammonium hydroxide, and the polonium was precipitated as the hydroxide. The hydroxide was filtered and washed to prepare it for the final step of polonium purification. The polonium hydroxide was redissolved in nitric acid, and the polonium was electroplated onto a platinum gauze electrode. The polonium metal was then ready for fabrication.

Other processes have been developed at Mound to separate polonium-210 from bismuth. Two additional processes, the silver process and the tellurium process, were actually employed on a production scale. Both processes could be used with the denitrated solution of the bismuth slugs. In the case of the silver process, the polonium spontaneously deposited onto the silver surface as polonium metal. Bismuth was not reduced by silver and therefore remained in solution. Next, the silver containing polonium was dissolved in nitric acid. This solution was treated with ammonium hydroxide, which precipitated the polonium. The silver remained in solution as a silver ammonium ion.

The tellurium process was used following the first step of polonium concentration using bismuth powder. Telluric acid and stannous chloride were added to a denitrated solution of polonium and bismuth, and the solution was heated. The tellurium precipitated and coagulated, and the polonium co-precipitated with the tellurium. This process resulted in the precipitation of some bismuth, which was eliminated by repeating the process. After the second precipitation step, the washed precipitate was dissolved in aqua regia, and the polonium recovery proceeded as in the bismuth process.

Bismuth Metal Recovery

At the beginning of the polonium program, the bismuth oxychloride sludge produced in the HH Building was stored at Mound for possible recovery of the bismuth and re-irradiation at the Hanford facility. In 1948, an electrolytic process was developed that successfully recovered bismuth, and in March 1950, seven

bismuth slugs were produced from recovered metal. These were sent to Hanford for neutron irradiation. In 1952, Mound constructed a bismuth metal recovery facility in the HH Building, with the capacity to produce 17,000 pounds of bismuth annually that would process the accumulated drums of bismuth sludge. The amount of sludge being stored at Mound in 1952 was equivalent to 62,000 pounds of bismuth. This amount of sludge represented approximately 200 55-gallon drums, which were reportedly stored inside of T Building. In 1953, a large quantity of high purity bismuth was located at the Brookhaven National Laboratory. This material, amounting to 64 tons, was made available to Mound and was sufficient to satisfy requirements for several years. This eliminated the need for the recovery facility and the recommendation was made that it be dismantled.

Separation of Polonium from Bismuth by Distillation

A major element of the polonium program was to develop improved processes for the separation of polonium from bismuth. During the period from 1949 to 1952, Mound conducted experimental work on the separation of polonium by distillation. This work turned into a materials research program; however, as of 1953, no satisfactory alloys had been found that remained inert to bismuth and polonium under the conditions required for distillation.

Post-Polonium Production Mission Summaries

Early Mound programs investigated the chemical and metallurgical properties of polonium-210 and its applications, including the fabrication of neutron and alpha sources for weapons and non-weapons use. Mound also developed and patented RTGs in the early 1950s. These units have been used on a variety of space missions including several lunar missions, weather satellites, navigational satellites, and deep space missions such as Voyager I and II. The most recent missions for use of radioisotopic thermoelectric generators have been Galileo, which is studying the planet Jupiter, and Ulysses, which is looking at the polar regions of the Sun. RTGs were developed for the Cassini mission in 1997. The units provide heat and electrical power for spacecraft.

In 1957, Mound was assigned a new mission to develop, produce, and provide surveillance of detonators for military applications. Development of explosive timers in 1959 led to their manufacture at the plant starting in 1963. The development and manufacture of ferro-electrical transducers and firing sets components that control initiation of detonators began at Mound in 1962.

The first of several programs requiring tritium-handling technology was initiated at Mound in the mid-1950s. The plant has extensive capabilities for handling and studying tritium and tritium compounds for weapon and non-weapon applications. Plant facilities exist for the recovery and purification of tritium from all types of wastes generated at Mound.

In the early 1970s, as national concerns about the environment and the conservation of resources mounted, Mound expanded its programs in environmental monitoring and waste management, as well as continuing work on detonator surveillance, energy-related activities, separation, purification, and worldwide sales of noble gas isotopes, the development of measurement technologies for nuclear materials, and RTG fabrication and testing.

Post polonium mission activities are discussed in detail in Section 2.2 of the 1998 report *Determination of the Historical/Archeological Significance of the Mound Facility*, (BWO 1998), and in the Site Overview being developed in conjunction with the HABS documentation being developed under the MOA.

3.1.3.2 Planned Activities

Some Mound facilities are to be demolished; the remaining facilities are to be cleaned up to industrial standards and eventually transferred to the MMCIC for re-use as an industrial park. The anticipated disposition of structures and properties is outlined in the Mound Exit Plan Project Plan.

In 1999, a determination was made that the RTG program would remain at Mound.

3.1.4 Summary of Current Planning Procedure

An MOA has been negotiated between the DOE and the OHPO to mitigate the impact of Exit Project activities to Mounds National Register eligible structures. As stated in the MOA, the original 17 structures associated with the polonium mission will be adversely impacted as a consequence of Mound's environmental restoration activities and subsequent transfer of the property. The MOA defines mitigation for potential adverse activities on a building disposition grouping basis, as follows:

1. The first grouping is operations related structures that will be demolished or transferred. This group includes B, E, HH, I, M, R, and T Buildings.

MITIGATIVE ACTIVITIES: Mitigation for these structures is a multi-phased process that proceeds as follows: 1) Before demolition begins, a physical description of the structure and a collection of photographs as the building exists today is compiled. 2) A "Historic American Building Survey" or HABS Level II documentation package that contains specific information pertaining to that structure is prepared. These documentation packages will be submitted to the NPS for inclusion in the HABS/HAER archive and to the OHPO. The documentation standards to be used, which are derived from the Secretary of Interior standards and guidelines for historic building documentation, are described in Figure 3-1.

2. The second grouping is support-type structures that will be (or have been) either demolished or transferred. This group includes A, C, G, GH, H, P, PH, SD, W, and WD Buildings.

MITIGATIVE ACTIVITIES: A documentation package that includes color photographs, floor plans, a physical description of the building and a description of the building's historic function within the Mound plant will be prepared. This package shall be submitted to the OHPO.

A HABS Level II documentation package that discusses the Mound site and its historic perspective is also to be prepared. This documentation package, titled the overview package, will also be submitted to the NPS for inclusion in the HABS/HAER archive and to the OHPO. The documentation standards to be used, which are derived from the Secretary of Interior standards and guidelines for historic building documentation, are described in Figure 3-1.

A video tape production of Mounds history is also to be prepared for submittal to the OHPO. DOE is responsible for preparation of this submittal.

None of Mound's National Register eligible structures will be listed in the National Register; documentation of these structures will be the mitigative act performed to offset the adverse impact of transfer without deed restrictions or demolition and transfer of the underlying property.

FIGURE 3-1—HABS LEVEL II DOCUMENTATION STANDARDS FOR POLONIUM MISSION OPERATIONAL STRUCTURES AT MOUND

**MOA MANDATED HABS LEVEL II DOCUMENTATION STANDARDS
FOR BUILDINGS B, E, HH, I, M, R, AND T AND THE SITE HISTORY**
HISTORIC AMERICAN BUILDINGS SURVEY (HABS) DOCUMENTATION
NPS Project #99-OH-001

By HABS definition, the Miamisburg Mound Plant is a complex consisting of structures that housed various activities; the combination of activities served to make the complex operational. Complexes share the same basic address and are identified with the same owner and name. The formatting or packaging requirements of HABS documentation for a complex differs from those for a single structure or structures of historic districts. The documentation shall be organized into distinct packages, one for the plant as a whole, and then a package for each of the Level II documented structures. The "Manual for Editing HABS/HAER Documentation,"

MOA MANDATED HABS LEVEL II DOCUMENTATION STANDARDS FOR BUILDINGS B, E, HH, I, M, R, AND T AND THE SITE HISTORY

and "HABS/HAER Guidelines: Transmitting HABS/HAER Documentation" provide additional directions on these packaging requirements.

I. WRITTEN DOCUMENTATION:

The written documentation shall be a combination of the "narrative format" and "short format" as described in the "HABS/HAER Guidelines HABS Historical Reports." All elements that contribute to the property's significance shall be identified. The report should follow the narrative format to establish an overview package of the Miamisburg Mound Plant as a cohesive unit, and should include the following information:

1. Physical context of the Miamisburg Mound Plant and how it relates to the surrounding environment.
2. Historical context of the Miamisburg Mound Plant and its relationship to the historical development of the surrounding area and to trends in the history of American weapons development and energy programs.
3. Specific history of the Miamisburg Mound Plant, including the dates of initial development, the changes in plan and evolution of the plant, individuals associated with the plant, and historical events or developments associated with the plant.

Following the narrative overview, the documentation should include individual packages for each operational structure documented under Level II. These packages shall include documentation using large format photography and written histories.

II. GRAPHIC DOCUMENTATION

For the overall narrative, the following graphic information is required:

1. Prepare an 8-1/2" x 11" site plan of the plant, clearly illustrating the relationship between the buildings, roads, structures, etc.
2. Prepare a site plan illustrating the relationship of the plant to the surrounding area.

For each of the buildings, the following graphic information is required:

- A. Prepare an 8-1/2" x 11" site plan, clearly illustrating the structure's location within the plant is required. The plan can use the same site plan used for the overall narrative.
- B. Prepare 8-1/2" x 11" sketch floor plans only if photographic copies of original floor plans are not available (see Photographic Documentation, below). These sketch floor plans need not be to scale but should include overall exterior dimensions. Sketch plans should follow the site plans in the preparation of the documents.

III. PHOTOGRAPHIC DOCUMENTATION

Photographs shall be archival quality and large format, following the guidelines outlined in the "HABS/HAER Photography: Specifications and Guidelines." The documentation shall include general overviews of the plant, as well as photographs of individual buildings and structures. The following shall be provided:

- 1) Index to Photographs
- 2) Key to Photographs to show location and direction of the camera for each photograph. This is a simple plan/site plan showing the location and direction of the camera for each photograph (copies of existing plans/site plans may be used). The locations must be numbered to correspond with the views in the Index of Photographs.
- 3) Exterior photographs for each of the operational structures listed above:
 - A minimum of one photograph of each structure recording its relationship to the overall plant.
 - A minimum of two photographs of each structure recording the spatial relationship between the structure and its immediate site.
 - Front elevation photograph of each structure
 - Perspective photograph of the front elevation and one side elevation of each structure
 - Perspective photograph of the rear elevation and other side elevation of each structure

**MOA MANDATED HABS LEVEL II DOCUMENTATION STANDARDS
FOR BUILDINGS B, E, HH, I, M, R, AND T AND THE SITE HISTORY**

- Photographs as required to record significant exterior architectural and construction details which are not shown in other photographs. Note: the lack of significant exterior details is also character-defining; but if this is the case, then the other exterior photographs should be adequate to capture this condition.

4) Interior photographs as applicable for each of the operational structures listed above:

- Photographs as required to record overall interior views
- Photographs as required to record typical interior spaces and spatial relationships
- Photographs as required to document significant interior architectural and construction details, which are not shown in other photographs.

5) Historic photographs. A thorough search shall be undertaken and photographic (not xerographic) copies made of existing historic photographs, if they are copyright free. The source and approximate date of the copied photograph shall be stated in the caption in the Index to Photographs. If a collection of historic photographs exist in a safe archive, the contractor shall make a sample collection of photographic copies. The contractor shall consult with the National Park Service regarding the size of the sample. Xerographic copies of the historic views shall be included as pages in the written report. Xerographic copies shall include headers and page numbers in the upper right corner of each sheet, as on other data pages. Cite the xerographic copies in the Sources of Information section at the end of the written report so researchers may recover the original. If historical views cannot be found, please list in the bibliography all the repositories searched.

6) Original design or construction drawings. If such documents exist, the contractor shall provide at a minimum, archival-quality, photographic (not xerographic) reproductions of floor plans, site plans and sections of each historic structure. Follow the guidelines outlined in the enclosed "HABS/HAER Photography: Specifications and Guidelines". Some blueprint companies can sometimes produce these large format photographs. If it is not feasible to provide negatives of this size, a 4" x 5" camera can be used, although the prints should be 8" x 10". If the original drawings are located in an archival repository open to the public, reduced xerographic copies of the drawings may be submitted instead. Include the Xerox copies as part of the narrative report, with headers and page numbers.

IV. PACKAGING REQUIREMENTS

The project shall be arranged as a HABS complex. As such, this project will include a master documentation package and separate, individual packages for each structure. The master package includes the overview history report, site plans of the complex and photographs of general views. The general history, photographs and site plans shall receive a general HABS number. Information for each individual structure (the separate Level II histories, site plans and photographs of individual structures) will be grouped with its own cover card and index to photographs, and shall be labeled with a letter subdivision. The general history report should refer to the individual structures, and, likewise, the specific structure reports should refer to the general history report.

The written histories, descriptions and photographs of the Miamisburg Mound Facility will be organized into distinct packages. The package shall be edited, catalogued and packaged according to the "Manual for Editing HABS/HAER Documentation." The information must be prepared on archivally stable materials and be readily reproducible.

One copy of the completed documentation package will be submitted to the National Park Service, and one copy to the Ohio State Preservation Office.

3.1.5 Funding

The ESC Group is responsible for administering the cultural resources management program and ensuring that sufficient funds are allocated within the Exit Plan to support the cultural resources management objectives outlined in this plan. Any changes in scope, which require additional funding will be addressed with a Baseline Change Proposal, submitted to DOE.

3.2 CULTURAL AND HISTORIC SETTING

According to the DOE's guidelines for a CRMP, this section should include pertinent introductory comments concerning the facility or the program's cultural and historical setting. As such, this section

discusses Mound's historic and prehistoric settings, including polonium related mission elements and structures requiring consideration under the NHPA.

There have been two archaeological surveys conducted at the Mound site. When combined, the two surveys address the plant property. Both surveys were directed at undeveloped, or undisturbed, acreage at the Mound site, focusing on a steeply sloping wooded tract of land that parallels the valley between the two main hills, and the area designated as the South Property. DOE acquired the South Property in 1981, as a buffer, and with the intent of future plant expansions; this area remains undeveloped, and is to be transferred to the MMCIC in the near future. Plant lands around the buildings were not considered, due to the level of disturbance associated with construction activities.

The first study was conducted in 1987 (*An Archaeological Survey of Portions of the Mound Facility, Montgomery County, Ohio*, Riordan 1987). This report presents a two-phase approach. Phase 1 consisted of a literature survey of the Mound site and surrounding areas. The second phase consisted of field reconnaissance work, and shovel test excavations.

The 1987 study noted two sites containing artifacts (33 MY 633 and 33 MY 634). Both sites were located on the South Property.

The first find at 33 MY 633 was a primary reduction flake. No other artifacts were recovered during additional testing at this location. The report concluded that this location was not regarded as having research potential to make it eligible for possible listing on the National Register of Historic Places.

The second site (33 MY 634) was the location of the David Groby Farm Site. David Groby was the occupant of the original farmstead that was located at this site, and dated to the Mid 1860's. At this site, the 1987 study noted a limestone barn foundation, and some minor artifacts associated with recent activity at the site (i.e., brown glass bottle fragment, .22 caliber shell, metal wire, rectangular nail, round nails, clear bottle base, metal spike, five pieces of clear window glass, rusted spark plug). The report concluded that none of the artifacts discovered could definitely be determined to be nineteenth century, and were likely twentieth century in origin. Additional artifacts that were assigned to recent land use (e.g., auto tires, power mower deck) were noted, but not recovered during additional testing at this location. The report concluded that this location was not regarded as having research potential to make it eligible for possible listing on the National Register of Historic Places.

The artifacts, field notes, and photographic documentation gathered during the 1987 study are curated in the Laboratory of Anthropology at Wright State University in Dayton, Ohio.

The second study, was conducted in 1991 (*Literature Review Update and Archaeological Survey of the EG&G Mound Facility and Adjacent Areas, City of Miamisburg Miami Township, Montgomery County, Ohio*, Beamer 1991). This report also included a two-phase approach. Phase 1 consisted of an update to the 1987 literature survey of the Mound site and surrounding areas. The second phase consisted of field reconnaissance work, and hand testing and mechanical excavations.

The 1991 study noted two crested shaped earthworks associated with the original plant property in a 1914 report, concluding that neither feature was evident in the current site topographical configuration, due to the amount of earthwork associated with development of those areas. This study also evaluated areas associated with the old Miami Erie Canal, including canal associated features, bridge remnant, a bridge, and a 1935 city water well. The potential for past residences evident in an 1875 county atlas and their possible historic significance were also evaluated. With respect to these areas, this report concluded that the canal features were not unique, nor of historic significance. With respect to past residences and the crested shaped earthworks, this report concluded that all evidence associated with these features has been obscured due to the degree of disturbance of soils associated with the construction of plant site buildings and structures.

The only sites inventoried were those field sites noted as those areas associated with the canal features, and this report determined these locations were not eligible for placement in the National Register of Historic Places.

Based on the studies and field observations presented in this report, the author concluded there were no areas at the plant site (and Canal site) that were eligible for placement on the National Register of Historic Places, and no further work was recommended.

In 1998, (*Determination of the Historical/Archeological Significance of the Mound Facility*, BWO 1998) Mound conducted an evaluation of plant site buildings, in order to determine if there were any Mound buildings eligible for placement on the National Register of Historic Places. This study evaluated the plant site missions, and the interaction of mission activities with plant site structures.

The following conclusions resulted from the 1998 study:

- There were no significant archaeological resources on property associated with the Mound plant. (The OHPO concurred with this determination in a reply dated July 31, 1998.)
- Excluding Mound's original mission of polonium production, the Mound plant mission elements of (1) research, development, engineering production, and surveillance of components for weapons programs; (2) separation, purification, and sale of stable isotopes; and (3) DOE programs in nuclear safeguards and waste management, heat source testing, and fusion fuel systems were not in themselves unique to the Mound plant, nor were they associated with structures that meet the standards for listing in the NHPA.
- Only the original mission, the production of polonium for use as triggers in early nuclear weapons, qualifies for consideration under the NHPA. This report concluded, however, that polonium production at the Mound plant, while important to the national defense, does not satisfy NHPA criteria for historical significance. The basis for this determination was that polonium production related to WW II was conducted at Mound plant predecessors (i.e., the "Dayton Units). As such, polonium production at the Mound plant site and the structures associated with that production did not meet the preservation criteria in the NHPA for listing on the National Register of Historic places.

In July 1998, the OHPO, the implementing state agency for the NHPA, responded that they did not concur with the conclusions of this report. The OHPO concluded that the original 17 buildings are eligible for the National Register of Historic Places, under Criterion A, for their association with early development of nuclear power. The OHPO recommended an MOA to mitigate adverse impacts to these structures. The terms of the MOA are discussed in Section 3.1.3.

3.2.1 Historic and Prehistoric Natural Environments

Prehistoric uses near the Mound plant site include a Native American ceremonial mound to the east of the site. There have been no documented incidents of Native American artifact discoveries at the site. Except for the original 17 structures at the plant site, there are no significant archaeological resources on the property associated with the Mound plant.

According to information presented in both the 1987 and the 1991 reports, the Mound plant area was not occupied by human populations until approximately 13,000 years ago, when the glaciers receded. Initially the area was settled by highly mobile peoples, who moved about on a seasonal basis, as hunters, without establishing long-term settlements. Archaeological evidence of these types of peoples is rare in the region, due to their nomadic nature and small numbers. No evidence of these peoples has been documented at the Mound site.

These nomadic peoples were replaced by a more settled population about 8,000 to 11,000 years ago (the early Archaic era). These peoples settled geographically, and functioned as seasonal hunters. They also

used farming techniques to provide foods. As their cultures expanded, so did their material wealth, and social functioning (i.e., there were more ceremonies, formalized burials, and trading). There are Archaic era archaeological sites in the Montgomery County area; however, no evidence of these peoples has been documented at the Mound site.

The Woodland (i.e., the Hopewell Culture, the Adena Culture) people followed (2000 to 3000 years ago). The life-style that is characteristic of these peoples is cultural expansion, and increased territorial permanence. The Woodland peoples manufactured pottery and used ceremonial sites. As their society expanded, so did their culture; proportionately, the evidence of these cultures also increased. Evidence of these peoples is also found in the Montgomery County area. However, other than the ceremonial mound that is located to the east of the Mound site, no evidence of Woodland peoples has been documented on the Mound site.

Late prehistoric cultures were characterized by increased development of their material belongings and social tendencies. There is little evidence of these cultures in the Montgomery County area. Likewise, there have not been any late prehistoric archaeological finds documented at the Mound site.

The Protohistoric period followed (i.e., about 500 years before the present). The development of more advanced possessions (i.e., use of wire for binding, copper items, and manufactured items) are characteristic of this culture. European trade items are characteristic of this group. There have not been any Protohistoric archaeological finds documented at the Mound site.

The primary reduction flake that was discovered at the Mound site South Property, as noted in the 1987 study, was not dated, nor was it determined to be characteristic of any of these cultures. The 1987 study concluded that the discovery site for the primary reduction flake was not regarded as having research potential to make it eligible for possible listing on the National Register of Historic Places.

The existing landscape and the pre-plant site landscape do meet the criteria for the potential for historic resources as noted in the previous section. Historic (e.g., pre-plant) activities included the land in its natural setting, being converted to agricultural use. The plant site remained as agricultural property until construction of the plant began.

Historic European culture (i.e., until about the year 1750) in the Montgomery County area was first dominated by traders and trappers. Native American cultures (i.e., the Miami, Shawnee, and Mingo) also occupied the area. These cultures were displaced (i.e., the Native Americans were driven west under treaties and the European trappers moved into the lesser populated areas to the west) as the area was settled. These later peoples were farmers, who established permanent farmsteads and established land ownership. Industries (i.e., mills) followed. Evidence of these cultures, which evolved into our modern peoples, is abundant in the Montgomery County area. The Mound plant site, including the South Property, was settled in the mid-1800's, when farmsteads were established in the area. Evidence or archaeological finds associated with the farmsteads on the original plant site (excluding the South Property) were destroyed when the original acreage was prepared for the construction of the plant buildings. Evidence of this period on the South Property is discussed in Section 3.2.

Natural Cultural Resources. Surface bedrock deposits are typical mid-Ordovician interbedded fossiliferous limestones and shale, bearing near-shore invertebrate fossils typically found in the surrounding areas (e.g., the tri-state areas of Indiana, Kentucky and Ohio). The fauna (e.g., brachiopods, bryozoan, coral) found at Mound are very common in this region. This paleontological evidence has not played a major role in the site's history, and therefore, is not of significance from a historic preservation perspective.

In undisturbed areas, the bedrock is exposed on some hillsides, and is covered by a thin layer of glacial till in the valleys and upon hill tops. The disturbed areas where plant related construction activities have resulted in the disturbance of surface geologic features consist of an unstratified mixture of glacial till and native limestone.

No historically significant natural landscapes or other physical features have been identified on the Mound site.

As such, other than the original 17 structures that were associated with the polonium mission, there has been no impact on life or condition of a resource, community, or people that would cause any one site within the Mound plant property to be of significance.

3.2.2 Prehistory and History

Discussions related to prehistory and history are presented in Section 3.2.1.

While there is a Native American mound immediately to the east of the Mound plant, there has been no documented evidence of Native American activities at the plant site. According to the Ohio Historical Society, the Miamisburg Mound is the largest conical burial mound in the state of Ohio and possibly in the eastern U. S. Archaeological investigations of the surrounding area suggest that it was constructed by the prehistoric Adena Indians (800 BC - AD 100). Built on a 100-foot-high bluff, the mound measures 877 feet in circumference. It was originally more than 70 feet high.

There are no documented events, activities, behaviors, or other activities of historic significance at the Mound plant site. There were no significant archaeological resources on property associated with the Mound plant. Recent historic uses include agricultural use of the property, until construction of the Mound plant began in 1946. Since that time, the site has operated as the Mound plant site.

3.2.3 Traditional Lands and Resource Uses

While there is a Native American mound immediately to the east of the Mound plant, there has been no evidence of Native American activities or artifacts documented as having been discovered at the site. There are no documented instances of uses of the plant site for religious purposes.

3.2.4 Treaties, Executive Orders and, Land Grants

Because there are no documented instances of archaeologically significant resources on site, there are no Native American groups that retain legal rights to the Mound site property; as such, there are no treaties, executive orders or land grants impacting Native Americans.

3.2.5 Recent Scientific Significance

The Mound plant has been an integrated research, development, and production facility that supported the U.S. Department of Energy's weapons and energy programs. Its missions have included: (1) research, development, engineering, production, and surveillance of components for weapons programs; (2) separation, purification, and sale of stable isotopes; and (3) DOE programs in nuclear safeguards and waste management, heat source testing, and fusion fuel systems.

Excluding the original mission and the original 17 buildings that were used in association with the production of polonium for use as "triggers" in early nuclear weapons, Mound's missions were part of a multi-DOE site production effort. This integrated effort incorporated redundancy between sites which was characterized by continually replacing old processes with new ones. Thus, the processes employed at Mound were not scientifically unique to Mound, nor are there any sites of recent historic significance.

3.3 KNOWN CULTURAL RESOURCES

The purpose of this section is to discuss defined cultural resources that have been noted at the Mound site. There have been three cultural resource surveys conducted on the Mound site (in 1987, 1991, and in 1998). These studies concluded that the only areas eligible for consideration for placement on the National Register were those structures associated with Mound's original mission of polonium production. Based

upon a determination by the OHPO, these 17 buildings have been determined to be National Register eligible. The DOE and OHPO have negotiated an MOA, in order to determine how these resources will be addressed; the terms of that MOA are discussed in Section 3.1.3.

In 1993, the Mound site received an honorary designation as a National Landmark from ASM International, a professional engineering organization. A plaque commemorates Mound's contribution to the development of the nuclear industry, the reason for determining Mound's eligibility as an ASM International National Landmark. The plaque is posted on the ornamental brick fence outside the OSE Building.

3.3.1 Prehistoric Properties

Based upon available information there were no prehistoric or archaeological sites on property associated with the Mound plant. The OHPO concurred with this determination in letters responding to the 1987, 1991, and 1998 reports and as such, there are no known documented prehistoric properties.

3.3.1.1 Districts, Sites, and Structures

There is a Native American burial mound immediately to the east of the Mound plant site. There are, however, no known or defined prehistoric districts, sites, or structures on Mound plant property.

3.3.1.2 Objects

There have been no other prehistoric objects discovered or known to be present on the plant property.

3.3.1.3 Other Important Properties

There have been no prehistoric properties discovered on the property.

3.3.2 Historic Properties

This section addresses the potential for historic properties (i.e., those areas of historic significance). At the time of compilation of this plan, the Mound plant site does not have, or contain, any structures or areas listed on the National Register of Historic Places. The only properties having historic significance are the 17 original polonium era buildings that are subject to the terms of an MOA between the OHPO and the DOE.

The same three studies referenced in Section 3.2 addressed the potential for historic resources at the Mound plant site.

3.3.2.1 Districts, Sites, Buildings, and Structures

As noted above, none of the Mound buildings or structures are listed on the National Register of Historic Places; nor is the site listed on the National Register. As discussed above, however, the Mound site has an honorary designation as a Historic Landmark, based upon its contribution to the nuclear industry from ASM International.

In addition, as discussed above, the DOE and the OHPO have developed an MOA to address the original Mound structures that were associated with Mound's original mission (polonium production). Attachment III is a site map that depicts the site in 1991 with the original 17 structures highlighted.

Building GIS (constructed in 1948) which was demolished in 1997, and Well House I and II, both of which were constructed in 1948, are not included in this list of historic buildings, nor are they addressed by the MOA.

A summary discussion of the original 17 structures based on information presented in a site construction completion report prepared in 1949 by Monsanto follows. This information references dimensions and floor space for the structures, as constructed. These discussions follow:

ADMINISTRATION BUILDING ("A" BUILDING)

The Administration Building is constructed of reinforced concrete frame, face brick and masonry block walls, plastered interior with steel sash. The building has an overall length of 303 feet including the end wings that project 82 feet back from the front of the building. The gross building floor area including basement is 34,785 square feet and the gross volume is 435,625 cubic feet.

The center portion consists of a basement and two floors. The end wings are one story, designed so as to permit the construction of a second story.

The two floors of the center portion originally housed the administration offices of the Monsanto Chemical Company, the guard headquarters, library, conference room, central files, and plant telephone equipment. The basement contained the mechanical service equipment, Security's communication control center, photographic department, stockroom, mailroom, and miscellaneous offices.

The west wing of the building housed the AEC's Area Manager's staff. The east wing contained the hospital and first aid facilities consisting of a doctor's office and examination rooms, x-ray room, treatment rooms, ward rooms and a clinical laboratory.

BIOLOGICAL BUILDING ("B" BUILDING)

The Biological Building is constructed with a reinforced concrete frame and roof, with face brick and masonry block walls. The building is two stories high and has an overall length of 121 feet and a width of 91 feet 10 inches with a gross floor area of 14,845 square feet and a gross volume of 256,055 cubic feet. The second story houses the air conditioning and ventilating units, filter rooms, and other building service equipment.

The building was designed and constructed for the purpose of conducting acute and chronic studies of the effects of radioactive materials on animals in the interest of safety and continuance of good health of the laboratory personnel. Due to the nature of the operations performed in the building, contamination is present in some areas. In view of this condition, the room layout, arrangement of equipment, and design of the air conditioning system is such as to provide maximum safety and health conditions for the operating personnel.

THE CAFETERIA BUILDING ("C" BUILDING)

The Cafeteria Building, which was demolished in 1998, was constructed of a reinforced concrete frame and roof, face brick and masonry block walls, and steel sash windows. The building was one story high and had an overall length of 103 feet 4 inches and an overall width of 88 feet 10 inches with a gross floor area (including the basement) of 10,920 square feet and a gross volume of 176,220 cubic feet. The dining room area was designed for an additional use as an auditorium for lectures of technical meetings to seat approximately 450 people. A small projection room was adjacent to the main entrance and a roll screen was provided at the opposite end of the room. Provision was made to wire the room for sound equipment and for control of projections from the floor by the speaker.

The dining room had a capacity for seating 240 people. The self-service counter was supplied with steam and electricity for serving hot and cold foods. Pass through boxes were provided for transferring food from the kitchen to the serving counters. Except for the steam cooker, the kitchen was also electrically equipped. Four walk-in refrigerators were built into the building to provide for storage of meats, vegetables, dairy products, and garbage. A hydraulic elevator served the basement for storage of staple food items. The

basement also housed the mechanical service equipment for the building including the refrigerating equipment for cold storage rooms.

THE ELECTRONICS LABORATORY BUILDING ("E" BUILDING)

The Electronics Laboratory Building, which was demolished in 2000, was a two-story structure of reinforced concrete frame, floors and roofs, face brick and masonry block walls. The overall length was 166 feet 10 inches, the overall width is 61 feet, and the gross floor area is 11,315 square feet with a gross volume of 189,355 cubic feet. The second floor consisted of a penthouse for mechanical and electrical service equipment.

The building was designed and equipped to provide efficient facilities for repairing, designing and building electronic equipment used in various laboratories. As the plans were developed for the building, electrostatic shielding for some of the rooms became a feature of the construction.

THE GARAGE BUILDING ("G" BUILDING)

The Garage Building is a one story steel frame building with brick and masonry block walls and pre-cast cement tile roof deck. The building is 121 feet 8 inches long and 61 feet 9 inches wide having a gross floor area of 7,520 square feet and a gross volume of approximately 147,920 cubic feet. The building contains facilities for servicing, repairing, and painting of automobiles. It has sufficient floor space for housing twenty (20) vehicles.

THE GUARD HOUSE BUILDING ("GH" BUILDING)

The Guard House Building is a one story structure with reinforced concrete roof construction bearing on exterior walls of face brick and masonry block. The building is 57 feet 6 inches long and 38 feet wide having a gross area of 2,185 square feet and a volume of 27,060 cubic feet. The Guard House housed the guard personnel and their equipment.

CHANGE HOUSE AND LAUNDRY BUILDING ("H" BUILDING)

The Change House and Laundry is a two story structure having a reinforced concrete frame, concrete floors, and roof decks. The walls are brick and concrete block with steel sash for natural light. Except for the high risk area in the Laundry, the walls in both the Change House and Laundry are faced with buff facing tile. In the high risk area which contains the washing and drying equipment for clothing assumed to be high risk, the walls and ceiling are finished with hard plaster for ease in cleaning. The floors in this area are acid-proof brick. The overall dimensions of the building are 114 feet 2 inches by 115 feet 10 inches comprising a gross floor area of about 13,225 square feet and a gross volume of 215,510 cubic feet.

The first floor is divided into north and south sections by the east end of the covered passage which extends from the Change House to the Biological and Research Laboratories. The north section contains the Change Rooms with facilities for both male and female employees to change from street clothes to apparel worn in the laboratories. It also contains space for storage of clean clothing. It is divided into two general areas, a clean area for use of personnel working in shops and other clean areas of the plant and a contaminated area for use of personnel working in areas in which contamination is present.

The south section of the first floor called the Laundry contains a complete set of equipment for washing and drying both soiled and contaminated clothing and facilities for pressing and mending torn clothing. All clothing is mended, pressed, and sorted in one large room. From here the clothing is dispatched to the various building units as required. The second floor of the building contains the service equipment for heating and ventilating, etc.

THE HYDROLYSIS BUILDING ("HH" BUILDING)

The Hydrolysis Building is constructed of reinforced concrete throughout, having an overall length of 78 feet 8 inches and an overall width of 49 feet. The building has a gross floor area of 5,250 square feet and a volume of 86,080 cubic feet.

The process employed in this building was the treatment of effluents received from the "T" Building. It was first considered that this process would be accomplished by the simple method of open settling or holding basins. The process which was finally adopted, as developed through laboratory experiments, employed the use of closed vessels and a vacuum filter providing better control of the contaminated material. The system as built required complete housing to protect the mechanical equipment and operators.

THE ISOLATED LABORATORY ("I" BUILDING)

The activities that took place in this building were included in the original design as part of the Biological ("B") Building. Because of the nature of the analysis work to be conducted, it was finally decided to separate it from the "B" Building and to construct a separate building located in an isolated position on the site least subjected to contamination from other plant operations. The building was located on sloping ground with the main floor below the general plant grade. The difference in grade permitted the use of an outside entrance to the basement. The construction is of reinforced concrete frame, floor, and roof. The exterior walls are brick with masonry back-up block. The building has an overall length of 121 feet 10 inches by about 94 feet, with a gross floor area of 11,420 square feet and a gross volume of 153,095 cubic feet. The building is equipped with facilities for conducting biological sample analyses to determine the amount of radioactivity present.

THE MAINTENANCE BUILDING ("M" BUILDING)

This building was demolished in 1999. It was constructed as a two-story steel frame structure with brick and masonry block walls with steel sash windows. The roof deck is precast cement tile. The floors consist of wood block in the machine shop, tool room and stock room, granolithic concrete in the janitor's closet, men's locker room, and toilet, asphalt tile in the drafting room and office, quarry tile in the plating room, and a troweled finish cement in the remaining rooms. The building is 241 feet 9 inches long and 101 feet 9 inches wide overall with a gross floor area of 24,598 square feet and a volume of 545,045 cubic feet.

The building was equipped with facilities for complete maintenance service and for construction of experimental equipment. It had a well-equipped machine shop, space for sheet metal work, carpenters, plumbers, electricians, and machine tool work. Facilities were also provided for painting, grinding, heat treating, plating, and glass blowing. Office and drafting room space was provided together with a men's toilet and locker room. A five ton crane served the center bay of the building in the Machine Shop area.

THE POWER HOUSE ("P" BUILDING)

This building is a steel frame structure with brick masonry and concrete block walls with steel sash windows. The roof is precast cement tile with continuous metal ventilators. The building is 95 feet 7 inches by 90 feet 2 inches overall having a gross floor area of approximately 11,955 square feet including the mezzanine and a volume of 305,655 cubic feet.

The equipment installed in the Power House performs five (5) major functions as follows:

- (1) The boilers supply steam to the turbines driving the centrifugal refrigeration machines and to the plant steam distribution system, which distributes steam throughout the plant for space heating, and for use in laboratories.

- (2) The centrifugal refrigeration machine is used to chill the brine, which is circulated throughout the plant for use in the air conditioning units.
- (3) The zeolite water softeners are used to reduce the hardness of the plant's well water supply.
- (4) Compressed air from the Power House compressors is piped throughout the plant for use on control instruments and in laboratories.
- (5) Switchgear installed serves as a primary distribution center for electric power to all buildings.

THE PUMP HOUSE ("PH" BUILDING)

The Pump House is a one-story structure constructed of reinforced concrete throughout measuring, 37 feet 4 inches by 16 feet 4 inches. It is located approximately 1,200 feet southwest of the Power House, adjacent to the railroad siding. It has a gross floor area of 610 square feet and a gross volume of 11,410 cubic feet including the pits at each end. In the pit on the eastern end are installed two (2) 30 GPM positive displacement brine pumps. These pumps deliver a saturated solution of sodium chloride brine from a concrete supply tank outside the east end of the Pump House to the brine holding tank on the mezzanine floor of the Power House. This brine is used for regenerating the sodium zeolite softeners. In the center of the building were installed two (2) 30 GPM positive displacement oil unloading pumps historically used for pumping No. 6 fuel oil from tank cars on the adjacent racks to the oil storage tanks at the Power House and to the emergency fuel oil storage tank across the tracks from the Pump House. The western end of the building contained two (2) complete Everson chlorinating outfits used for chlorinating the plant well water supply. The 8 inch C.I. well water supply line passes through the pit in the western end of the building in which a venturi meter is installed.

THE RESEARCH BUILDING ("R" BUILDING)

The Research Laboratory is a rectangular building 234 feet 10 inches long and 108 feet 4 inches wide with a second floor housing the mechanical and electrical service equipment for the building. It has a gross floor area of 37,815 square feet, including the penthouse underfloor trenches and the connecting corridor to the "E" Building, and a gross volume of 695,125 cubic feet. It is constructed of reinforced concrete frame floors and roof with face brick and masonry block walls with plastered interior for ease in cleaning. The building has no windows.

The building contains facilities for basic and fundamental research in nuclear energy and the chemical problems related thereto.

THE SEWAGE DISPOSAL PLANT ("SD" BUILDING)

The Sewage Disposal Plant, which was demolished in August 1997, consisted of a primary settling tank, an aeration tank, a digester tank, a chlorine reaction basin, and two sludge beds. The construction was reinforced concrete except for a small brick masonry structure which contained a small laboratory, the chlorine treating apparatus, and other mechanical equipment. It had a gross floor area of 1,670 square feet and a gross volume of 20,250 cubic feet.

The Sewage Disposal Plant treated all sanitary sewage discharged from all buildings in the plant. The clear effluent was discharged through a main leading to the Great Miami River. The design capacity was sufficient for a population of 900 people.

THE TECHNICAL BUILDING ("T" BUILDING)

Building "T" is a heavily reinforced, underground concrete structure. Building T's gross floor space is 173,000 square feet, and the usable floor area is 150,000 square feet. The building has two floors that are compartmentalized into three general areas by two 30-inch thick fire walls. The reinforced concrete exterior structure has a 15 foot thick roof, 16 foot thick walls on an eight-foot thick slab. The overall

design of the building was to withstand a direct hit by a bomb. The building was constructed for the purpose of purifying polonium-210 for use in nuclear weapons.

THE WAREHOUSE ("W" BUILDING)

The Warehouse is a steel frame building with brick masonry and concrete block walls, steel sash windows, precast cement tile roof and a concrete floor. The building is 201 feet 9 inches long and 101 feet 9 inches wide exclusive of the loading docks on both the north and south sides of the building. The gross floor area including 50% of the dock area is 22,350 square feet and the gross volume is 378,790 cubic feet also including 50% of the dock space.

The building is used for general storage of plant supplies and maintenance materials. A separate area, enclosed by masonry walls and provided with acid proof brick floors, is used for storage of acids.

THE WASTE DISPOSAL PLANT ("WD" BUILDING)

The Waste Disposal Plant is constructed entirely of reinforced concrete with steel sash windows and steel roof trusses. It is 130 feet long, 100 feet wide containing a gross floor area of 22,980 square feet including the pipe gallery, basement, and tanks, and a gross volume of 366,805 cubic feet.

The building was constructed and equipped for the purpose of treating liquid wastes contaminated with radioactive materials. The process equipment was designed to reduce such radioactivity to one (1) count per minute per milliliter. Two (2) complete process lines were installed, one for operation and the other as a standby.

Besides housing the process equipment for waste treatment, the building contains offices, process laboratories, storage rooms, and change rooms. Like the other buildings in the laboratory group, it has high risk, low risk, and clean areas within the building.

3.3.2.2 Objects

There have been two archaeological surveys conducted at the Mound site. The surveys are discussed in Section 3.2. Several sites containing artifacts were noted. Both reports concluded that the sites lacked research potential and no further work was recommended. The artifacts, field notes, and photographic documentation gathered during the 1987 study are curated in the Laboratory of Anthropology at Wright State University, in Dayton, Ohio.

3.3.2.3 Other Important Properties

With the exception of the original polonium buildings, no historic artifacts or sites have been noted on the property.

3.3.3 Resources of Ethnic Importance

There are no documented ethnic cultural resources (i.e., sacred sites, Native American cultural items, or other ethnic resources) documented on the Mound site.

3.3.3.1 Sacred sites

There are no documented sacred sites at the Mound site.

3.3.3.2 Traditional-Use Resources

There are no documented instances of traditional use resources (i.e., plants, animals, minerals or other natural resource items) that would have been used by ethnic groups.

3.3.3.3 Native American Cultural Items

While there is a Native American mound immediately to the east of the Mound plant, there has been no documented evidence of Native American cultural items or artifacts having been discovered at the site.

3.3.3.4 Other Resources of Ethnic Importance

There has been no documented evidence of Native American cultural items or artifacts.

3.3.4 Properties of Recent Scientific Significance

The buildings associated with Mound's original mission of polonium production are of significance because of the mission contribution to the early development of nuclear power, and because those structures are over 50 years old. No properties of recent historic significance have been identified at Mound.

3.3.4.1 Districts, Sites, Buildings, Structures, and Other Facilities

Other than the original 17 structures, no other areas or facilities have been identified as being historically significant.

In 1993, the Mound site received an honorary designation as a National Landmark from ASM International, a professional engineering organization. A plaque commemorates Mound's contribution to the development of the nuclear industry. This contribution being the rationale for awarding this designation. A bronze plaque posted on the ornamental brick fence outside the OSE Building denotes this honorary designation.

3.3.4.2 Objects

There have been no equipment, apparatus, or other objects identified or noted as of significance to recent scientific history.

3.3.4.3 Other Properties

There have been no other properties identified as of recent scientific significance.

3.4 CULTURAL RESOURCES MANAGEMENT ACCOMPLISHMENTS

Mound's accomplishments in cultural resource management include the three studies conducted in 1987, 1991, and 1998 that evaluated plant properties, structures, and processes. The 1987 and the 1991 studies were conducted by independent archaeological consultants. As a consequence of the 1987 study, artifacts, field notes, and photographic documentation are curated in the Laboratory of Anthropology at Wright State University, in Dayton, Ohio.

BWXT of Ohio has also developed plans for the implementation of an Outreach program. This program would include internet and intranet web sites, information presentations at the environmental restoration quarterly public meeting, and publication of informative articles in the environmental restoration newsletter, as well as the placement of information related to cultural resource management issues in the public reading room. In addition to these elements of the Outreach Program, the BWXT of Ohio Cultural Resources Coordinator is an active member of the Mound Museum Association, a grouping of individuals focused on preserving the historic and written record of the Mound facility³. The Outreach program is described in Section 3.4.9.

³ The museum and archive that is formed by this group will also serve as a repository for the collection of reference material related to the building histories being assembled under the MOA.

The DOE and the OHPO negotiated an MOA that will alleviate adverse impacts to Mound's historic structures. Consistent with the MOA, ESC is developing documentation packages, documenting the structural and functional histories of six of the original 17 structures.

3.4.1 Cultural Resource Records and Reports

The following reports or documents have been completed in support of Cultural Resource Management. Work is in progress for other MOA deliverables.

- *An Archaeological Survey of Portions of the Mound Facility, Montgomery County, Ohio*, (Riordan 1987). This study evaluated the potential for archaeological resources on undeveloped acreage (the South Property and the undeveloped hillsides of the main property).
- *Literature Review Update and Archaeological Survey of the EG&G Mound Facility and Adjacent Areas, City of Miamisburg Miami Township, Montgomery County, Ohio*, Beamer 1991. This study focused on the main properties, and included a study of the Miami-Erie Canal.
- *Determination of the Historical/Archeological Significance of the Mound Facility*, BWO 1998. This report examined the plant history and the interaction of that history on Mound plant structures and buildings.
- MOA between the OHPO and DOE. The MOA addresses adverse impacts to historic buildings resulting from environmental restoration and transfer of Mounds properties.
- A Cultural Resource Management Plan (BWO 1999)
- *DOE Mound Facility A Building General Support Function Documentation Package* (BWO 1999).
- *DOE Mound Facility G Building General Support Function Documentation Package* (BWO 1999).
- *DOE Mound Facility GH Building General Support Function Documentation Package* (BWO 1998).
- *DOE Mound Facility P Building General Support Function Documentation Package* (BWO 1999).
- *DOE Mound Facility PH Building General Support Function Documentation Package* (BWO 1999).
- *DOE Mound Facility W Building General Support Function Documentation Package* (BWO 1999).
- Environmental Practice 28 and 28A on Cultural Resource Management.

As noted in Section 6 of this plan, working draft versions of HABS documentation packages are in process for B, E, I, and M Buildings and for the site ("Site Overview"). Documentation packages being prepared under the less stringent OHPO documentation standards are, at the time of preparation of this plan, in draft for Buildings H and WD.

3.4.1.1 Cultural Resource Site Records

The ESC Group maintains cultural resource site records in the Cultural Resource Coordinators office area in OSE 245A. The ESC Group also maintains a database of these records. The DOE-MEMP staff member who is responsible for cultural resource issues maintains the records related to the development of MOA.

3.4.1.2 Cultural Resource Project Records

Project records, reports, and other information associated with cultural resource activities that are conducted in support of the Exit Project are maintained by the BWXT of Ohio's Cultural Resource Coordinator, in OSE Building, Room 245A.

3.4.1.3 Other Cultural Resource Records

All cultural resource records are maintained as described in Sections 3.4.1.1 and Section 3.4.1.2.

3.4.1.4 Cultural Resource Reports

The ESC Group maintains cultural resource reports in the Cultural Resource Coordinators office area in OSE 245A. A database listing of these reports is also maintained.

3.4.1.4.1 Standardized Report Outlines

Reports follow DOE guidelines and National Park Service/OHPO guidelines where available.

3.4.1.4.2 Report Library

The ESC Group maintains the cultural resource report library, in the Cultural Resource Coordinators office area in OSE 245A. The ESC group also maintains a database listing these records.

3.4.2 Inventory

Artifacts gathered during the 1987 archaeological study of the archaeological resources of the South Property and the undeveloped hillsides on the main property are curated in the Laboratory of Anthropology at Wright State University, in Dayton, Ohio.

3.4.3 Excavation

Excavations were performed in both the 1987 and 1991 archaeological surveys. Artifacts discovered are discussed in Section 3.2. Both reports concluded there were no areas on the plant site or at the Canal site that were eligible for placement on the National Register of Historic Places, and no further work was recommended.

3.4.3.1 Test Excavations

As noted in Section 3.4.1, above, there have been two archaeological studies conducted at the Mound site that included test excavations. The purpose of these test excavations was to randomly test the areas being studied, in order to determine the potential for archaeologically significant resources. In addition, directed excavations were conducted to determine the potential for archaeologically significant resources at some sites (i.e., the farmsteads on the South Property).

The second phase of the 1987 study consisted of field reconnaissance work and shovel test excavations. This study noted two sites containing artifacts (33 MY 633, and 33 MY 634). These artifacts are not regarded as having historical significance.

The 1991 study used test pits, test pits with hand coring, shovel tests, and deep testing with a backhoe. No artifacts or other items of archaeological significance were recovered as a result of these test excavations.

The locations of the test excavations are noted in both the 1987 and the 1991 reports.

3.4.3.2 Large-Scale Excavations

There have been no large-scale test excavations at the Mound site.

3.4.3.3 Excavation Status

Excavations for purposes of determining the potential for the recovery of archaeological resources on the Mound property have been restricted to areas where the surface soils have not been disturbed by Mound plant site development (i.e., the South Property). The locations of excavations are noted in the 1987 and the 1991 archaeological survey reports.

At this time, there are no planned large-scale archaeological excavations planned at the Mound site.

3.4.4 Structure and Facility Management

The mission at Mound is to clean the site up (i.e., reduce or eliminate contamination), and transition reusable or economically valuable resources (i.e., buildings, structures, processes, equipment) to the MMCIC. As such, buildings associated with the original mission will be either decontaminated or demolished. The DOE has negotiated an MOA to mitigate adverse impacts to historic buildings. The terms and conditions of the MOA are discussed in Section 3.1.3.

3.4.4.1 Structure and Facility Documentation

The 17 original buildings associated with the polonium mission have been designated historically significant. In accordance with the MOA between DOE and the OHPO, HABS based documentation will be prepared for B, E, HH, I, M, R, and T Buildings. Documentation packages consisting of color photographs and a discussion of the process and architectural history of the buildings will be prepared for A, C, G, GH, H, P, PH, SD, W and WD Buildings. Documentation packages for A, G, GH, P, PH, and W Buildings have been completed for submission to the OHPO.

3.4.4.2 Structure and Facility Maintenance

The Mound site has a routine maintenance program for exterior grounds and building facades in order to maintain their integrity pending final disposition under the Mound Exit Plan.

3.4.4.3 Structure and Facility Mitigation

Mitigation of adverse impacts on historic structures will be in accordance with the MOA, as discussed in Section 3.1.3.

3.4.4.4 Structure and Facility Maintenance Status

Routine maintenance is performed on occupied buildings. Only limited maintenance is performed on buildings that are no longer in use.

3.4.5 Laboratory Treatment

There are no cultural resources identified on the Mound site that require laboratory treatment. No archaeological resources or prehistoric resources have been identified to date, and as such, these resource types are not a concern.

3.4.5.1 Processing

There are no cultural resources identified on the Mound site that require laboratory treatment; therefore, processing is not necessary. No archaeological resources or prehistoric resources have been identified to date, and as such, these resource types are not a concern.

3.4.5.2 Analyses

There are no cultural resources identified on the Mound site that require laboratory analyses. No archaeological resources or prehistoric resources have been identified to date, and as such, these resource types are not a concern.

3.4.5.3 Laboratory Treatment Status

There are no cultural resources identified on the Mound site that require laboratory treatment. No archaeological resources or prehistoric resources have been identified to date, and as such, these resource types are not a concern.

3.4.6 Curation

The only artifacts that have been recovered at the Mound site are those items recovered as a consequence of the 1987 archaeological study discussed in Section 3.2. This study noted two sites containing artifacts (33 MY 633 and 33 MY 634). Both sites were located on the South Property. The first find at 33 MY 633 was a primary reduction flake. No other artifacts were recovered during additional testing at this location. The report concluded that this location was not regarded as having research potential to make it eligible for possible listing on the National Register of Historic Places.

The second site (33 MY 634) was the location of the David Groby Farm Site. David Groby was the occupant of the original farmstead that was located at this site, and dated to the mid 1860's. At this site, the 1987 study noted a limestone barn foundation, and some minor artifacts associated with recent activity at the site (i.e., brown glass bottle fragment, .22 caliber shell, metal wire, rectangular nail, round nails, clear bottle base, metal spike, five pieces of clear window glass, rusted spark plug). The report concluded that none of the artifacts discovered could definitely be determined to be nineteenth century, and were likely twentieth century in origin. Additional artifacts that were assigned to recent land use (e.g., auto tires, power mower deck) were noted, but not recovered during additional testing at this location. The report concluded that this location was not regarded as having research potential to make it eligible for possible listing on the National Register of Historic Places.

The artifacts gathered during this study, though determined to not be historically significant, are curated in the Laboratory of Anthropology at Wright State University, in Dayton, Ohio.

In November 1998, ESC Managers visited Wright State University. During this visit, it was determined that the Mound collection was being maintained in accordance with OHPO guidelines.

3.4.6.1 Curation Facilities and Procedures

See Section 3.4.6 summary.

3.4.6.2 Curation Status

See Section 3.4.6 summary.

3.4.7 Preservation

See Section 3.4.6 summary.

3.4.7.1 Protection from Natural Forces

See Section 3.4.6 summary.

3.4.7.2 Protection from Human Forces

See Section 3.4.6 summary.

3.4.8 Research

See Section 3.4.6 summary.

3.4.9 Outreach

Mound has also developed plans for the implementation of an Outreach program that would include the following:

1. Internet and intranet web sites that include information related to this plan, and to activities that have been conducted thus far (i.e., the 1987, 1991, and 1998 reports), as well as intended plans for implementation of the CRMP;
2. Presentation of information related to cultural resources management at the environmental restoration Mound Action Committee (MAC) quarterly public meeting. These presentations will be used to discuss the accomplishments to date, future plans, and any cultural resources that may be discovered during the implementation of the CRMP;
3. Publication of informative articles in the newsletter to stakeholders, discussing the accomplishments to date, future plans, and any cultural resources that may be discovered during the implementation of the CRMP;
4. Placement of information related to cultural resource management in the public reading room. These documents will include Mound reports and other related information.
5. Displays including photographs documenting/depicting the original structures as well as their evolution through time.

In addition to these activities, the Cultural Resources Coordinator is an active member of the Mound Museum Association, formerly the "Mound Archive Project." This Association is an MMCIC sponsored committee composed in large part by Mound Facility retirees who are charged with developing a Mound archive and museum.

3.4.9.1 Activities on the DOE Site

The BWXT of Ohio Cultural Resources Coordinator actively interacts with, and provides guidance and oversight to BWXT of Ohio Project Managers. Activities include project reviews and evaluations of impacts to existing cultural resources and new cultural resource discoveries.

The position of Cultural Resources Coordinator entails the following activities:

1. Monitoring for MOA compliance. Mounds Cultural Resources Management Plan (CRMP) incorporates a program to evaluate project and site activities to determine if there will be any adverse impacts to known cultural resources by ensuring that Mound Exit Plan (MEP) projects and activities are consistent with the terms of the MOA.
2. Verifying applicability of the 1987/1991 archaeological studies with respect to planned MEP activities. The combined results of the 1987 and the 1991 studies are that no archaeologically significant cultural resources, artifacts, or sites exist on the Mound property. To verify the consistency of this conclusion with Mound Exit Plan projects, CRM staff will assess project work plans and project activities to verify that the conclusions presented by the 1987 and 1991 studies continue to apply. CRM staff will also monitor those activities to determine if any discoveries of a previously unidentified cultural resource occur. The CRMP includes the administrative processes that outline the procedures that must be implemented in the event a cultural resource is discovered and in the event something not covered by the MOA is impacted.

3. If, as the MEP is carried out, any previously unidentified cultural resources are found, the Cultural Resources Coordinator will process these discoveries in accordance with the CRMP, DOE guidelines, and National Park Service guidelines.
4. The Cultural Resources Coordinator assesses properties and activities affecting properties and buildings. This evaluation is necessary to accommodate for changes in conditions that could affect the previous eligibility determination. To document the results of these evaluations, the Cultural Resources Coordinator prepares determinations on all projects and activities affecting Mound buildings and lands. Therefore, not only the National Register eligible structures are evaluated, as such all of Mounds structures (and lands) are evaluated to determine if conditions affecting National Register eligibility have changed.

In February 1999, a Mound news article was published to inform the plant population of some of the requirements of Mound's cultural resources program.

3.4.9.2 Activities Not on the DOE Site

As discussed in Section 3.4.9, above, Mound has also developed plans for the implementation of an Outreach program that would include internet web sites, information presentations at Mound Action Committee meetings, and publication of informative articles in the stakeholder newsletter, as well as the placement of information related to cultural resource management issues in the public reading room.

3.4.9.3 Outreach Status

The status of the Outreach activities as noted in Section 3.4.9.2 above is as follows:

1. Internet Web Site. This program is currently in the developmental phase. Once implemented it would include summaries of information assembled thus far, summaries of plans, and possible links to other resources (i.e., the NPS, DOE) that provide relevant information.
2. Information presentations at the Mound Action Committee Quarterly Public Meeting. This element of the Outreach program is also in the developmental stage. The intent is to prepare an initial presentation, with follow up "status" presentations or presentations if discoveries are made. Status discussions related to the MOA related programs might be necessary.
3. Publication of articles in the stakeholder newsletter. This element of the Outreach program is also in the developmental stage. The intent is to prepare an initial presentation, with follow up "status" presentations or presentations if discoveries are made. Status of the MOA related programs might be necessary.
4. Placement of information related to Cultural Resource Management Issues in the Public Reading Room. Mound related documents and pertinent regulations and guidance have been assembled in the Public Reading Room.
5. Fact sheets describing the program and other related activities and reports have been drafted for the following topics:
 - "Historic Preservation at the Mound Site"
 - "The Mound Site as an ASM International National Historic Landmark"
 - "Mound Site Archaeological Studies"
 - "Cultural Resources Management at the Mound Site"
 - "The Process at Mound that will be Implemented in the Event any Artifacts are Discovered at the Mound Site"
 - "Mound Site Process History Summary"

The BWXT of Ohio Cultural Resources Coordinator is an active member of the Mound Museum Association (formerly the Mound Archive committee) as discussed in Section 3.4.9, above.

3.4.10 Other Cultural Resources Management Accomplishments

BWXT of Ohio has created a staff position, Cultural Resources Coordinator, with the responsibility for implementation and administration of BWXT of Ohio's cultural resource management program as discussed in Section 3.4.9 of this plan.

This Cultural Resources Management Plan and an Environmental Practice have also been developed.

3.5 LEGAL COMPLIANCE ACCOMPLISHMENTS

The DOE has developed a MOA that addresses historic preservation issues as they relate to polonium production and the associated structures. The MOA establishes the standards by which Mound will address the disposition of the original 17 buildings that have been determined to be historically significant. The terms of the MOA are discussed in Section 3.1.3.

3.5.1 NHPA, Executive Order 11593, and 36 CFR Part 800

The sections that follow outline Mound's compliance strategy with respect to NHPA statutes and the implementing regulations.

3.5.1.1 NHPA, Sections 106 and 110(f), and 36 CFR Part 800

The purpose of this section is to discuss actions taken to account for the effects of projects on National Historic Landmarks, National Register properties, and National Register eligible properties and for affording the ACHP the opportunity to comment on these effects.

Pursuant to Section 106 of the NHPA, any Federal agency with direct jurisdiction over a federal undertaking at a facility with possible historic resources shall assess the impact of that undertaking on any "district, site, building, structure, or object that is included in or is eligible for inclusion in the National Register." Section 36 of the Code of Federal Regulations (CFR) at 800.13 outlines the programmatic agreement process for achieving compliance with Section 106 of the NHPA.

In response to these requirements, there have been three cultural resource surveys conducted on the Mound site, addressing all of the plant property and structures. The first, in 1987 (Riordan 1987), was an evaluation of the potential for archaeological resources on the South Property and the undeveloped hillsides on the main property. The second study, in 1991 (Beamer 1991), focused on the main property and included a study of the Miami Erie Canal site. The studies concluded that none of the study areas possess research potential to make them eligible for possible listing on the National Register of Historic Places.

The third study, a report entitled *Determination of the Historical/Archeological Significance of the Mound Facility* (BWO 1998), evaluated Mound facility mission elements, the building areas associated with those mission elements, and the status of those buildings under the evaluation criteria derived from Section 106. This report concluded that only those portions of the facility associated with Mounds polonium mission would qualify for evaluation under these criteria. This report carried out this evaluation, and determined that this element of Mound's mission was not unique, and that the site was a part of mission elements also carried out at other DOE sites. As such, this report concluded Mound was not eligible for placement on the National Register of Historic Places.

In response, the OHPO agreed with the conclusions in this report, with the exception of the assessment of the polonium mission related structures. The OHPO concluded that the original 17 buildings are historically significant. The OHPO further recommended that Mound prepare an agreement (i.e., an MOA) to mitigate adverse impacts to these structures. In response, an MOA has been developed and accepted by the ACHP. The terms of the MOA are discussed in Section 3.1.3.

3.5.1.2 NHPA, Sections 110(a)-(e) and (g)-(j), and Executive Order 11593, Section 2

This CRMP has been developed in order to address possible cultural resource discoveries that could arise as the Exit Project progresses. Under the CRMP, the Cultural Resources Coordinator plays an active part in project reviews in order to determine possible cultural resource impacts. An outreach program is also being developed under the CRMP, in order to inform both the Mound site population and outside stakeholders of Mound's cultural resource program and the accomplishments of that program.

3.5.2 American Indian Religious Freedom Act

The AIFRA was passed into law to protect Native American cultural resources, such as sacred or religious sites. There are no documented Native American cultural resources documented on the Mound site. The lack of these types of archaeological resources has been documented in the 1987 and 1991 archaeological survey reports.

3.5.3 Archeological Resources Protection Act

The ARPA protects archaeological resources. There are no documented Native American archaeological resources of significance documented on the Mound site. The lack of archaeological resources has been documented in the 1987 and 1991 archaeological survey reports.

3.5.4 Native American Graves Protection and Repatriation Act

The NAGPRA affords protection of Native American gravesites. There are no documented Native American gravesites on the Mound site. The lack of these types of resources has been documented in the 1987 and 1991 archaeological survey reports.

3.5.5 36 CFR Part 79

The artifacts gathered during the 1987 study are curated in the Laboratory of Anthropology at Wright State University, in Dayton, Ohio. None of the artifacts discovered were determined to be of historic significance. Curation methods are discussed in Section 3.4.6.

MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN

SECTION 4

CRM METHODS

SECTION 4 CULTURAL RESOURCE MANAGEMENT METHODS

4.1 RECORDS AND REPORTS

As described in the CRMP guidelines there are a variety of professionally accepted, effective methods related to preparing and maintaining records and reports, inventory, excavation, laboratory treatment, curation, preservation, and outreach that should be used to develop cultural resources management procedures at the facility or program area. Section 4.1 addresses the methods used for preparing and maintaining cultural resource program records and reports at the Mound site.

4.1.1 Cultural Resource Site Records

The cultural resource site records are maintained by ESC in OSE Building Room 245A. The ESC Group also maintains a database of these records; the database assigns a numbering system for the records maintained.

The ESC "*Environmental Practices Manual*" (OPA 980014), includes a section (Section 28) governing the inadvertent discovery of possible cultural resources. This section also includes a field documentation form that is used to document the discovery of artifacts.

4.1.2 Cultural Resource Project Records

Cultural resource site records are maintained by BWXT of Ohio's Cultural Resources Coordinator, in OSE Building in Room 245A, as described in section 3.4.1.2.

4.1.3 Other Cultural Resource Records

As described in Section 3.4.1.3, no other cultural resource issues have been identified at the Mound site.

4.1.4 Cultural Resource Reports

Mound cultural resource reports are described in Section 3.4.1.4.

4.1.4.1 Standardized Report Outlines

Mound uses DOE guidelines and/or National Park Service/OHPO guidelines, as described in Section 3.4.1.4.1.

4.1.4.2 Report Library

As described in Section 3.4.1.4.2, the cultural resource report library is maintained by ESC in OSE Building Room 245A.

4.2 INVENTORY

The methodologies employed at Mound for cultural resource inventory activities are described in Section 3.2.

4.2.1 Archival Searches

The 1987 and 1991 archeological surveys include literature surveys for Mound site property. Search-related activities as related to Mound's historical resources include record searches of site libraries, use of the Mound Drawing Control archives, use of photographic archives, and personnel interviews.

4.2.2 Ethnographic Fieldwork

As described in Section 3.3.3, there are no documented ethnic cultural resources (i.e., sacred sites, Native American cultural items, or resources of ethnic resources) documented on the Mound site.

4.2.3 Structure and Facility Surveys

Mound structure or facility survey methods used for locating and recording buildings and other structures and facilities of historic or recent scientific significance are described in Section 3.2. As a consequence of one of these surveys, the original 17 structures that were associated with the polonium production mission have been designated as historically significant.

4.2.4 Archeological Surveys

The methodologies used to study archeological resources are noted in Section 3.2.

4.3 EXCAVATION

The cultural resource excavation methodologies employed at Mound are described in Section 3.4.3.

If in the event there are any test-scale or large-scale excavations at the Mound site, the excavations will be conducted in accordance with appropriate scientific and technical guidelines, the requirements in Section 5 of this CRMP, and the NAGPRA.

4.3.1 Test Excavations

See Section 4.3.

4.3.2 Large-Scale Excavations

See Section 4.3.

4.4 STRUCTURE AND FACILITY MANAGEMENT

This section is intended to describe the methods to be used for management of buildings and other structures and facilities of historic or recent scientific significance at the facility or program area. As described in the DOE guidelines, the methods should be appropriate for the structure and facility management conditions associated with the facility. Mound methodologies for structure and facility management are described in Section 3.4.4.

4.4.1 Structure and Facility Documentation

Documentation of the original 17 polonium related structures will be in accordance with the MOA, using HABS Level II standards for B, E, I, HH, M, R, and T Buildings. The remaining structures (A, C, G, GH, H, P, PH, SD, W, and WD Buildings) will be documented with a written process history, architectural discussion, and color photographs. The packages for B, E, I, HH, M, R, and T Buildings, as well as a general site history volume, will be submitted to the NPS and to the OHPO. The packages for A, C, G, GH, H, P, PH, SD, W, and WD Buildings will be submitted to the OHPO.

4.4.2 Structure and Facility Maintenance

Activities related to structure and facility maintenance of the original 17 polonium-mission associated structures that were constructed in 1948 are described in Section 3.4.4.2.

4.4.3 Structure and Facility Mitigation

As described in Section 3.4.4.3, the DOE and the OHPO have negotiated an MOA that establishes methodologies for mitigating adverse impacts to historic structures.

4.5 LABORATORY TREATMENT

To date, there are no cultural resources identified on the Mound site that require laboratory treatment.

4.5.1 Processing

There are no cultural resources identified on the Mound site that require laboratory treatment; therefore, processing is not necessary.

4.5.2 Analysis

There are no cultural resources identified on the Mound site that require laboratory analyses.

4.6 CURATION

The only artifacts that have been recovered at the Mound site were recovered as a consequence of the 1987 archeological study discussed in Section 3.2. Section 3.4.6 describes curation methods.

4.7 PRESERVATION

The mission at Mound is to clean the site up (i.e., reduce or eliminate contamination), and transition reusable or economically valuable resources (i.e., buildings, structures, processes, equipment) to the MMCIC. As such, historically significant buildings (i.e., those buildings associated with the polonium mission) may be either decontaminated or demolished. The DOE at Mound and OHPO have developed an MOA to mitigate adverse impacts to these historic buildings.

Mission activities in historic buildings will be performed consistent with the MOA. MOA requirements consist primarily of documentation; no preservation activities are planned.

4.7.1 Natural Forces

The MOA requires no additional protection measures from natural forces for Mound's historic structures.

4.7.2 Human Forces

Cultural resources management staff interacts with and provides guidance to BWXT of Ohio project management staff to ensure that mission activities in historic buildings are performed consistent with the MOA.

4.7.2.1 Authorized Actions

Cultural resources management staff interacts with and provides guidance to BWXT of Ohio project management staff to ensure that mission activities in historic buildings are performed consistent with the MOA.

4.7.2.2 Illegal Acts

By virtue of its operation as a DOE defense related operation, the Mound site is protected by controlled access entry points through which only authorized persons are allowed to pass. Although these controls are not specifically directed towards protecting historic structures, they prevent access to historic structures by unauthorized persons.

4.8 OUTREACH

As outlined in the DOE CRMP guidelines, Mound is developing an Outreach program, as described in Section 3.4.9.

4.8.1 Activities on the DOE Site

Activities planned on the site are described in Section 3.4.9.1

4.8.2 Activities Not on the DOE Site

Activities open to the public are described in Section 3.4.9.2.

4.9 INTERAGENCY INFORMATION EXCHANGE

Mound will coordinate its efforts in the evaluation of cultural resources management issues at the Mound site with other DOE facilities within Ohio.

MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN

SECTION 5

CRM PROCEDURES AND ADMINISTRATION

SECTION 5 CULTURAL RESOURCES MANAGEMENT PROCEDURES AND ADMINISTRATION

Section 5 addresses the cultural resource management procedures and administrative processes in place at the Mound site. Where these procedures and programs have been developed into an active program, the appropriate program is described. Where programs or procedures have not yet been developed because no examples of the covered resources have been discovered at Mound, the regulations prescribing the referenced process or procedure, in abbreviated form, are noted in the appropriate section. Attachment VI, in Section 6, includes a table illustrating the applicability of the procedures and administrative requirements in this section at the time of preparation of this plan.

The regulatory citations for 36 CFR 800 included in this section reflect the updated citations included in a June 19, 1999 Federal Register, rather than the citations for that rule as included in the DOE guidelines. The DOE guidelines include an earlier version of those rules. On September 15, 2000, the ACHP issued a Federal Register notification suspending the June 19, 1999 rules and proposing to re-issue those rules pending the settlement of a question concerning the constitutionality of part of those rules. A proposed revision to the 36 CFR 800 rules was also published in July 2000, that rule revision is also on hold. Federal Register notifications for the time-period from 1995 (the date of publication of the DOE CRMP guidance) to September 30, 2000 have also been searched to account for any additional rule changes or relevant notices that may have been issued since the original publication of the DOE CRMP guidance. Pending or proposed rule makings and notices were not incorporated into this CRMP. Updates to this CRMP will be prepared as necessary to incorporate relevant rule changes.

5.1 COMPLIANCE PROCEDURES—NHPA, EXECUTIVE ORDER 11593, 36 CFR PARTS 60, 63, 65, 79, AND 800

This section describes the Mound site processes or procedures for compliance with the requirements governing the National Register of Historic Places, and how Mound will achieve compliance with these requirements as it progresses through site cleanup and transition of the site to the MMCIC.

As discussed in Section 3.1.3, Mound has entered into an MOA that stipulates how Mound will manage the 17 original structures that have been identified as historically significant, and therefore, National Register eligible. Under this MOA, impacts to all 17 original structures will be mitigated by the development of documentation packages detailing the functional and structural histories of these structures.

5.1.1 Initiation of Compliance Procedures for Undertakings

The NPS historic preservation regulations at 36 CFR 800.4 include the compliance procedures which must be implemented before conducting activities that may impact a historic property. Those requirements are summarized and paraphrased below. The OHPO and DOE have agreed that the 17 original structures at Mound are historic. Since the documentation packages being prepared under the MOA mitigate adverse impacts to Mound's historic structures, Mound has completed the actions described in this section, and therefore, the procedures below are included in the event any additional historic properties are discovered.

Identifying historic properties. Following a determination that a proposed project, activity, or program constitutes an undertaking and after establishing the undertaking's area of potential effects, the facility shall:

1. Review existing information on historic properties potentially affected by the undertaking, including any data concerning the likelihood that unidentified historic properties exist in the area of potential effects;
2. Request the views of the OHPO on further actions to identify historic properties that may be affected;

3. Seek information in accordance with the planning processes from applicable stakeholders (i.e., local governments, Indian tribes, public and private organizations) and from other parties likely to have knowledge of, or to have concerns with historic properties in the area; and
4. Gather information from any Indian tribe or Native Hawaiian organization identified.

Based on this evaluation, the facility should determine any need for further actions, such as field surveys and predictive modeling, to identify historic properties.

Level of effort. In consultation with the OHPO, the facility shall make a reasonable and good faith effort to identify historic properties that may be affected by the undertaking and gather sufficient information to evaluate the eligibility of these properties for the National Register. Efforts to identify historic properties should follow NPS standards and guidelines.

The facility should consider other applicable professional, State, tribal, and local laws', standards and guidelines. Confidentiality concerns should be taken into account.

Evaluating historical significance. In consultation with the OHPO and following the NPS Standards and Guidelines for Evaluation, the facility shall evaluate properties that may be impacted using the National Register Criteria. Note that the passage of time or changing perceptions of significance may justify reevaluation of properties that were previously determined to be eligible or ineligible. One of the following shall happen based upon these evaluations:

- If the facility and the OHPO agree that a property is eligible under the criteria, the property shall be considered eligible for the National Register for Section 106 purposes.
- If the facility and the OHPO agree that the criteria are not met, the property shall be considered not eligible for the National Register for Section 106 purposes.

If the facility and the OHPO do not agree, a determination shall be obtained from the Secretary of the Interior. If an Indian tribe that attaches religious and cultural significance to a property off tribal lands does not agree, it may ask the council to request the facility to obtain a determination of eligibility.

According to the procedural requirements in 36 CFR 800.4, if the OHPO does not provide views, then the OHPO is presumed to agree with the facility Official's determination for the purpose of this subsection.

When no historic properties are found. If the facility, in accordance with these requirements, determines that there are no historic properties that may be affected by an undertaking, the facility shall provide documentation of this finding to the OHPO. The facility should also notify interested persons and parties known to be interested in the undertaking and its possible effects on historic properties and make the documentation available to the public. Under this scenario, the facility is not required to take further steps in the Section 106 process.

When historic properties are found. If there are historic properties that an undertaking may affect the facility shall assess the effects in accordance with 36 CFR 800.5.

5.1.1.1 Pre-construction Project Planning and Evaluation

ESC staff members are integrated into each exit project via a matrixed organizational structure. ESC staff members consult with the Cultural Resource Coordinator during project planning to identify activities that may impact historic resources and ensure that such impacts are properly addressed.

5.1.1.2 Identification of Projects That May Affect Cultural Resources

The Cultural Resources Coordinator will review all projects that may result in disturbance of the original mission structures or may result in a physical disturbance or excavation of other Mound site areas, structures, or buildings. Reviews will be documented and logged.

5.1.1.3 Notification of Cultural Resources Management Staff

ESC Staff are involved, via the matrix management system, in cultural resources management related reviews of projects and work packages that may result in disturbance of the original mission structures as identified above, or may result in a physical disturbance or excavation of other Mound site areas, structures, or buildings. Under this matrix system, projects and work packages are evaluated for possible cultural resource impacts using guidance and guidelines developed from the NHPA and the implementing regulations.

5.1.1.4 Consultation to Assess Information Needs

Consultation shall be initiated only when new discoveries of cultural resources are identified per Section 5.1.6.

5.1.1.5 Authorizing, Funding, Planning, and Scheduling Archaeological Surveys and Other Field Studies

As appropriate, the cultural resources management staff will conduct field observations of activities that may impact possible cultural resources or when there is reason to suspect that cultural resources could be impacted. Any possible disturbance of an apparent Native American artifact or other archaeological resource will be reported to the cultural resources management staff for evaluation and determination using Environmental Practice Section 28, NHPA, NPS guidelines, and the requirements of this plan. Further surveys may be performed to determine the nature and extent of the discovery. Funding, if needed, will be secured per Section 3.1.4. Any such field studies will be performed in accordance with the relevant technical standards and this plan. No comprehensive or large-scale archaeological surveys are planned.

5.1.2 Identification of Cultural Resources that May be Affected

As discussed in Section 3.2, there are no significant archaeological, prehistoric, or natural cultural resources identified at the Mound site that require consideration under the criteria established under the NHPA. Only the original 17 buildings that were constructed in 1948 in order to support the polonium production mission are of concern. Site cleanup and transfer of the property to MMCIC will affect all of these structures.

5.1.2.1 Identification of Known Cultural Resources

The 17 original polonium production and support structures that were completed in 1948 have been identified as National Register eligible, and as such, as cultural resources.

5.1.2.2 Surveys and Other Field Studies

Cultural resources management staff will conduct field observations of activities that may impact cultural resources. Any possible disturbance of an apparent Native American artifact or other archaeological resource will be reported by project staff to the cultural resources management staff for evaluation and determination using the guidelines in this CRMP, Environmental Practice Section 28, NHPA, and NPS guidance. Further surveys may be performed to determine the nature and extent of the discovery. The operating contractor will conduct the evaluations and assessments of cultural resource management issues, and refer the results of these evaluations and assessments to the facility cultural resources management staff member for referral to the OHPO.

No comprehensive large-scale field studies are planned.

5.1.2.3 Report Preparation and Review

Cultural resources management staff within ESC will prepare reports concerning cultural resources issues and cultural resource related evaluations of plant activities. These reports will be based upon results compiled during the evaluation of work packages, field studies, and site visits, as appropriate.

5.1.3 Consultation When No Cultural Resources Are Identified

BWXT of Ohio's Cultural Resources Coordinator shall prepare a report or summary explanation documenting cultural resource evaluations for Exit Project activities. The results of the determinations will be incorporated into the records of cultural resource activities conducted at Mound. No consultation with the OHPO or NPS will be sought for these determinations unless adverse impacts outside the scope of the MOA are planned.

5.1.4 Evaluation of Cultural Resources Identified

Procedures used for cultural resource identification must comply with the requirements in the NHPA Section 106 and 110(f) and with the requirements in 36 CFR 800.4. Mound site structures and properties were evaluated in 1998 (BWO, 1998) in accordance with these requirements. In addition, any newly discovered or previously undefined cultural resource issues will be evaluated using guidelines developed by the Advisory Council on Historic Preservation (ACHP) and the National Park Service (NPS). This process is outlined in the section that follows.

5.1.4.1 Evaluation

The ACHP and NPS have developed guidelines and standards for historic preservation, based upon the criteria in the NHPA and the promulgated regulations. Mound's evaluation of cultural resources shall follow these guidelines and standards in assessing cultural resources identified as cleanup and transition related projects are undertaken.

NPS guidance outlines four criteria for the evaluation of possible cultural resource issues, artifacts, and structures. According to the NPS: "The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- A. That are associated with events that have made a significant contribution to the broad patterns of history; or
- B. That are associated with the lives of significant persons in the past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinctions; or
- D. That have yielded, or may be likely to yield, information important to history or prehistory."

National Register Bulletin 15 *How to Apply the National Register Criteria for Evaluation*, compiled by the NPS, forms the basis and provides the guidelines for these evaluations.

As described in ACHP guidelines, cultural resources identified at Mound will be evaluated using the criteria listed above, taking into consideration the following standards as noted in a guidance document compiled by the ACHP. This document is called *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. The standards are summarized as follows:

- **Standard I. Evaluation of the Significance of Historic Properties Uses Established Criteria Values.** Evaluation of historic properties employs criteria to determine which properties are significant. This evaluation therefore focuses on historical, architectural, archaeological, engineering, and cultural values.
- **Standard II. Evaluation of Significance Applies the Criteria Within Historic Contexts.** Properties are evaluated using a historic context that identifies the significant patterns that properties represent and defines expected property types against which individual properties may be compared.
- **Standard III. Evaluation Results in a List or Inventory of Significant Properties that is Consulted in Assigning Registration and Treatment Priorities.** The evaluation process and the subsequent development of an inventory of significant properties is an on-going activity. Evaluation of the significance of a property should be completed before registration is considered and before preservation treatments are selected. The inventory entries shall contain sufficient information for subsequent activities such as registration or treatment of properties, including an evaluation statement that makes clear the significance of the property within one or more historic contexts.
- **Standard IV. Evaluation Results Are Made Available to the Public.** Evaluation is the basis of registration and treatment decisions. Information about evaluation decisions shall be organized pursuant to the CRMP and available for use by the general public and by those who take part in decisions about registration and treatment. Use of appropriate computer-assisted data bases should be a part of the information dissemination effort. Sensitive information, however, must be safeguarded from general public distribution.

5.1.4.2 Consultation

The MOA, developed to mitigate adverse impacts to the original 17 buildings that have been identified as being National Register eligible, was negotiated in consultation with the facility, the OHPO, and ACHP.

5.1.5 Assessing and Avoiding or Reducing Effects on Cultural Resources

The site mission is to clean up the site and transfer reusable structures and property to the MMCIC. Building cleanup activities (including demolition in some cases) and transfer of the property to MMCIC meet the criteria for adverse impacts to historic structures as described in the following section. Adverse impacts will be mitigated via the MOA with a documentation package as outlined in Section 3.1.3. Since the documentation packages being prepared under the MOA mitigate adverse impacts to Mound's historic structures, Mound has completed the actions described in this section. The procedures outlined below will be implemented in the event any additional historically significant cultural resources are discovered.

5.1.5.1 Assessing Effects

The regulations at 36 CFR 800.5 (Assessment of Adverse Effects) establish a lengthy procedure to be followed to assess effects on historic properties. The procedure that follows is paraphrased and extracted from these regulations. Adverse impacts will be mitigated via the MOA with a documentation package as outlined in Section 3.1.3. Since the documentation packages being prepared under the MOA mitigate adverse impacts to Mound's historic structures, Mound has completed the actions described in this section. The procedures outlined below will be implemented in the event any additional historically significant cultural resources are discovered.

Applying the Criteria of Adverse Effect. In consultation with the OHPO, the facility shall apply the Criteria of Effect in 36 CFR 800.5(a) to historic properties that may be affected, giving consideration to the views, if any, of interested persons. These criteria are:

1. Physical destruction of or damage to all or part of the property;
2. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties and applicable guidelines;
3. Removal of the property from its historic location;
4. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
5. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
6. Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
7. Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

When no effect is found. If the undertaking will have no effect on historic properties, the facility shall notify the OHPO and interested persons who have made their concerns known and document the findings, which shall be available for public inspection. Unless the OHPO objects within 30 days of receiving such notice, the facility is not required to take any further steps in the Section 106 process. If the OHPO files a timely objection, the procedures described in this section will be implemented.

When an effect is found. If an effect on historic properties is found, the facility in consultation with the OHPO shall apply the Criteria of Adverse Effect (Section 800.5(d)(2) and 800.6) to determine whether the effect of the undertaking should be considered adverse.

When the effect is not considered adverse. If the effect is not adverse, the facility shall:

- (i) Obtain the OHPO's concurrence with the finding and notify and submit summary documentation to the ACHP. This documentation shall be provided to consulting parties, or
- (ii) Seek concurrence of consulting parties, and submit the finding with necessary documentation to the ACHP for a 30-day review period and notify the OHPO.
- (iii) If requested, submit the finding with necessary documentation to the ACHP for a 30-day review period and notify the OHPO.

If there is no objection to the finding within 30 days of receipt of notice or if there are objections with proposed changes, the facility is not required to take any further steps in the Section 106 process other than to comply with any agreement with the OHPO or the ACHP concerning the undertaking. If there are objections and the facility does not agree with changes proposed, then the effect shall be considered as adverse.

When the effect is adverse. If an adverse effect on historic properties is found, the facility shall notify the OHPO and other consulting parties to seek ways to avoid or reduce the effects on historic properties. The facility shall also notify the ACHP of the determination, and notify the Council to determine participation.

Involving consulting parties. Interested persons shall be invited by the facility and the OHPO, and other consulting parties may agree to invite other parties to participate as consulting parties when they so request.

Involve the public. The facility shall make information available to the public, including the documentation related to no effect determinations, subject to the confidentiality provisions. The facility shall provide an opportunity for members of the public to express their views on resolving adverse effects of the undertaking. The facility should use appropriate mechanisms, taking into account the magnitude of

the undertaking and the nature of its effects upon historic properties, the likely effects on historic properties, and the relationship of the federal involvement to the undertaking, to ensure that the public's views are considered in the consultation. The facility should also consider the extent of notice and information concerning historic preservation issues afforded the public early in the Section 106 process to determine the appropriate level of public involvement when resolving adverse effects.

Restriction of disclosure of information. If a Native American organization objects to the disclosure of information or if the facility believes that there are other reasons to withhold information, the facility shall comply with the confidentiality requirements regarding the disclosure of such information.

Resolution without ACHP participation. The facility shall consult with the OHPO and other consulting parties to seek ways to avoid, minimize, or mitigate the adverse effects. The facility may use standard treatments established by the ACHP as a basis for an MOA. If the ACHP decides to join the consultation, the facility shall follow 36 CFR 800.6(b)(2). If the facility and the OHPO agree on how the adverse effects will be resolved, they shall execute an MOA. The facility must submit a copy of the executed MOA, along with the specified documentation (36 CFR 800.11(f)), to the ACHP before approving the undertaking in order to meet the requirements of Section 106.

If the facility and the OHPO fail to agree on the terms of an MOA, the facility shall request the ACHP to join the consultation and provide the ACHP with the documentation. If the ACHP decides to join the consultation, the facility shall proceed in accordance with the requirements in 36 CFR 800.6(b)(2). If the ACHP decides not to join the consultation, the ACHP will notify the facility and proceed to comment.

Resolution with ACHP participation. If the ACHP decides to participate in the consultation, the facility shall consult with the OHPO, the ACHP, and other consulting parties, including Native American organizations, to seek ways to avoid, minimize, or mitigate the adverse effects. If the facility, the OHPO, and the ACHP agree on how the adverse effects will be resolved, they shall execute an MOA.

Memorandum of Agreement. An MOA executed and implemented pursuant to these requirements indicates compliance with Section 106 and shall govern the undertaking and all of its parts. An MOA executed pursuant to these requirements is filed with the ACHP and shall be considered to be an agreement with the ACHP for the purposes of Section 110(1) of the Act. The facility shall ensure that the undertaking is carried out in accordance with the MOA. The MOA shall include:

Signatories--The signatories have sole authority to execute, amend or terminate the agreement. The facility may invite Native American organizations that attach religious and cultural significance to historic properties to be a signatory to an MOA concerning such properties. The signatories should invite any party that assumes a responsibility under an MOA to be a signatory. The refusal of any party invited to become a signatory to an MOA does not invalidate the MOA.

Concurrence by others--The facility may invite all consulting parties to concur in the MOA. The signatories may agree to invite others to concur. The refusal of any party invited to concur in the MOA does not invalidate the MOA.

Reports on implementation--Where the signatories agree it is appropriate, an MOA shall include a provision for monitoring and reporting on its implementation.

Duration--An MOA shall include provisions for termination and for reconsideration of terms if the undertaking has not been implemented within a specified time.

Discoveries--Where the signatories agree it is appropriate, an MOA shall include provisions to deal with the subsequent discovery or identification of additional historic properties affected by the undertaking.

Amendments--The signatories to an MOA may amend it. If the ACHP was not a signatory to the original agreement and the signatories execute an amended agreement, the facility shall file it with the ACHP.

Termination--If any signatory determines that the terms of an MOA cannot be carried out, the signatories shall consult to seek amendment of the agreement. If the agreement is not amended, any signatory may terminate it.

Copies--The facility shall provide each consulting party with a copy of any MOA executed pursuant to these requirements.

5.1.5.2 Identifying Ways to Avoid or Reduce Effects

The regulations at 36 CFR 800.8 establish a lengthy procedure to be followed for reducing or avoiding effects on historic properties. The information that follows is paraphrased and extracted from these regulations. Since the documentation packages being prepared under the MOA mitigate adverse impacts to Mound's historic structures, Mound has completed the actions described in this section. The procedures outlined below will be implemented in the event any additional historically significant cultural resources are discovered.

Finding of no historic properties affected. Documentation shall include:

1. A description of the undertaking, specifying the federal involvement and its area of potential effects, including photographs, maps, drawings, as necessary;
2. A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information pursuant to 36 CFR 800.4(b); and
3. The basis for determining that no historic properties are present or affected.

Finding of no adverse effect or finding of an adverse effect. Documentation shall include:

1. A description of the undertaking, specifying the federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;
2. A description of the steps taken to identify historic properties;
3. A description of the affected historic properties, including information on the characteristics that qualify them for the National Register;
4. A description of the undertaking's effects on historic properties.
5. An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize or mitigate adverse effects; and
6. Copies or summaries of any views provided by consulting parties and the public.

Memorandum of Agreement. When an MOA is filed with the ACHP, the documentation shall include any substantive revisions or additions to the documentation provided the ACHP pursuant to 36 CFR 800.6(a)(1), an evaluation of any measures considered to avoid or minimize the undertaking's adverse effects and a summary of the views of consulting parties and the public.

Requests for comment without an MOA. Documentation shall include:

1. A description and evaluation of any alternatives or mitigation measures that the facility proposes to resolve the undertaking's adverse effects;
2. A description of any reasonable alternatives or mitigation measures that were considered but not chosen, and the reasons for their rejection;
3. Copies or summaries of any views submitted to the facility concerning the adverse effects of the undertaking on historic properties and alternatives to reduce or avoid those effects; and
4. Any substantive revisions or additions to the documentation provided the ACHP pursuant to 36 CFR 800.6(a)(1).

5.1.5.3 Consultation and Documentation

Any reporting or documentation made necessary by impacts to cultural resources will be conducted in compliance with this CRMP and with 36 CFR 800.11. This will include contractor staff within the ESC group preparing reports pertaining to these effects that will be formally transmitted to the facility, for formal transmittal to the OHPO and/or the NPS.

5.1.6 Unanticipated Discoveries of Cultural Resources

Mound has implemented two programs related to unanticipated discoveries of cultural resources. First, a program for field monitoring of activities and required notifications to ESC of these projects, in order to protect unanticipated discoveries of cultural resources, has been implemented. Second, Environmental Practice Number 28 has been developed and implemented. Environmental Practice 28 outlines procedures that will help prevent the loss or destruction of any archaeologically or historically significant cultural resources, through a procedure for recording, documentation, and possible recovery of any unanticipated cultural resources that are discovered.

In order to address the possible discovery of unanticipated cultural resources, the following actions will be taken:

- Guide project staff and field personnel through the cultural resources requirements;
- Perform field monitoring of site activities that may impact a cultural resource;
- Suspend projects where the possible new discoveries of cultural resources have been identified in order to assess the situation and determine if a cultural resource will be adversely impacted;
- Collect, catalog, and archive (as appropriate) cultural resources that are discovered;
- Perform additional surveys, if warranted, to determine the nature and extent of new discoveries;
- Evaluate new discoveries of possible cultural resources per NHPA Cultural Resource Evaluation criteria;
- Follow reporting procedures in this CRMP; and,
- Notify the OHPO of conditions and planned course of action if the discovery of a cultural resource is confirmed.

The current mission at Mound is to clean the site up and transition reusable or economically valuable resources (i.e., buildings, structures, processes, and equipment) to the MMCIC. As such, buildings associated with the original mission may be either decontaminated or demolished as discussed in Section 3.1.3. The Cultural Resources Coordinator will review all projects that may result in disturbance of the original mission structures or may result in a physical disturbance or excavation of other Mound site areas, structures, or buildings. Reviews will be documented and logged.

Future and ongoing projects will be reviewed in order to determine if there are any adverse impacts upon cultural resources not addressed by the MOA. Mound will evaluate such activities based upon the requirements in NHPA Section 106, the MOA, and information gathered from the three cultural resources studies that have been conducted at Mound. Any undefined, or yet undetermined cultural resources, shall be addressed using the procedures in Section 5.1.6.

As appropriate, the cultural resources management staff will also conduct or require field observations of activities that may impact possible cultural resources or when there is reason to suspect that cultural resources could be impacted. Any possible disturbance of an apparent Native American artifact or other archaeological resource will be reported to the cultural resources management staff for evaluation and determination using the Environmental Practice Section 28, NHPA, NPS guidelines, and the requirements of this plan.

5.1.7 National Register of Historic Places Nominations

The original 17 polonium processing related structures have been determined by the OHPO to be eligible for placement on the National Register of Historic Places. The decision to transfer and/or demolish those structures has also been determined by the OHPO to be an adverse impact, and through an MOA, documentation packages including written histories and photographs are to be prepared as a mitigative

measure. The requirements for these documentation packages are outlined in Section 3.1.3 of this plan. These documentation packages are to be prepared in lieu of a National Register nomination; as such, the procedures outlined below will be implemented in the event any additional historically significant cultural resources are discovered and listed on the National Register.

Additional guidelines for National Register nominations can be found in the National Register Bulletin titled *How to Complete the National Register Registration Form* (National Register Bulletin 17a) and in 36 CFR 60.

The quality of significance of a structure in terms of American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and when those properties:

1. are associated with events that have made a significant contribution to the broad patterns of our history; or,
2. are associated with the lives of persons significant in our past; or,
3. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. have yielded, or may be likely to yield, information important in prehistory or history.

Criteria considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria of if they fall within the following categories:

- (a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- (b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- (c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
- (d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- (e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- (f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- (g) A property achieving significance within the past 50 years if it is of exceptional importance.

The NPS at 36 CFR 60.5 has promulgated a set of regulations titled "Nomination Forms and Information Collection." All nominations to the National Register are to be made on original standard National Register forms available from the OHPO.

The regulations at 36 CFR 60.6 provide procedures for nominations by the state historic preservation offices. These regulations are not applicable to Mound. Concurrent nominations by a SHPO and federal agencies are provided for in 36 CFR 60.10.

This same set of regulations at 36 CFR 60.9 addresses nominations by federal agencies. According to these regulations, with the advice of the Interior Secretary and in cooperation with the federal agencies, a

program shall be established to locate, inventory and nominate all properties under the facility's ownership or control that appear to qualify for inclusion on the National Register.

Section 2(a) of Executive Order 11593 provides that federal agencies shall locate, inventory, and nominate to the Secretary of the Interior all sites, buildings, districts, and objects under their jurisdiction or control that appear to qualify for listing on the National Register of Historic Places. Additional responsibilities of federal agencies are detailed in the National Historic Preservation Act of 1966, as amended, Executive Order 11593, the National Environmental Policy Act of 1969, the Archeological and Historic Preservation Act of 1974, and procedures developed pursuant to these authorities, and other related legislation.

Nomination forms are prepared under the supervision of the Federal Preservation Officer designated by DOE to fulfill agency responsibilities under the NHPA. Completed nominations are submitted to the appropriate OHPO for review and comment regarding the adequacy of the nomination, the significance of the property and its eligibility for the National Register. The chief elected local officials of the county (or equivalent governmental unit) and municipal political jurisdiction in which the property is located are notified and given 45 days in which to comment. The OHPO signs the nomination form with his/her recommendation.

After receiving the comments of the OHPO, and chief elected local official, or if there has been no response within 45 days, the Federal Preservation Officer, may approve the nomination. The Federal Preservation Officer then forwards it to the Keeper of the National Register of Historic Places, National Park Service, United States Department of the Interior, Washington, D.C. 20240. The Federal Preservation Officer signs block 12 of the nomination form if, in his or her opinion, the property meets the National Register criteria for evaluation. The Federal Preservation Officer's signature certifies that:

- (1) All procedural requirements have been met;
- (2) The nomination form is adequately documented;
- (3) The nomination form is technically and professionally correct and sufficient;
- (4) In the opinion of the Federal Preservation Officer, the property meets the National Register criteria for evaluation.

When a Federal Preservation Officer submits a nomination form for a property that he or she does not believe meets the National Register criteria for evaluation, the Federal Preservation Officer signs a continuation sheet explaining his/her opinions on the eligibility of the property and certifying that:

- (1) All procedural requirements have been met;
- (2) The nomination form is adequately documented;
- (3) The nomination form is technically and professionally correct and sufficient

Comments of the OHPO and chief local official are appended to the nomination, or, if there are no comments from the OHPO, an explanation is attached. Concurrent nominations cannot be submitted, however, until the nomination has been considered by the State. Comments received by the State concerning concurrent nominations and notarized statements of objection must be submitted with the nomination.

Notice will be provided in the Federal Register (by the NPS) that the nominated property is being considered for listing in the National Register of Historic Places.

Any person or organization that supports or opposes the nomination of a property may petition the Keeper of the Federal Register during the nomination process either to accept or reject a nomination. The petitioner must state the grounds of the petition and request in writing that the Keeper substantively reviews the nomination. Such petition, received by the Keeper prior to the listing of a property in the National Register or a determination of its eligibility where the private owner(s) object to listing, will be considered by the Keeper and the nomination will be substantively reviewed.

The determination of eligibility process is provided at 36 CFR 63, and is conducted by the NPS. The NPS is mandated to respond within 45 days of receipt of a documented request for a determination of eligibility from a federal agency when it is submitted in accordance with the following regulations and is accompanied by documentation that clearly portrays the nature and significance of the property.

Mound, as required by the regulations shall consult the OHPO as the first step in identifying historic properties for information concerning:

- (1) Properties listed in the National Register.
- (2) Properties in the process of nomination to the National Register.
- (3) Properties determined eligible by the Secretary of the Interior for listing in the National Register.
- (4) Any other available information that would assist in identifying properties in the area affected by the proposed action.

If the OHPO has inadequate information to document the presence or absence of historic properties in the project area, the facility should refer to the Department of the Interior's criteria for the identification of historic properties. Reference should also be made to the guidelines for level of documentation to accompany requests for determinations of eligibility.

The facility shall, in consultation with the OHPO, apply the National Register Criteria for Evaluation contained in 36 CFR 60.6 to all potentially eligible properties that may be affected by the proposed action. If a property appears to meet the Criteria and the State Historic Preservation Officer agrees, the facility should follow the procedures in 36 CFR 63.3.

If there is a question whether the Criteria are met, Mound shall comply with the procedures in 36 CFR 63.3(d). A question on whether a property meets the Criteria exists when the facility and the OHPO disagree or when the facility determines that a question exists. The Department of the Interior will provide general and specific advice concerning the identification of historic properties and will bring to the attention of Mound any information received from the public regarding potential historic properties in the area affected by its plans or projects.

The facility shall submit a letter of request for a determination of eligibility with a description, statement of significance, photographs, and a map, or a statement as outlined in 36 CFR 63.3, if applicable, directly to the Keeper of the National Register. The Keeper of the National Register's address is National Park Service, Department of the Interior, Washington, D.C. 20240. If available, the opinion of the OHPO on the eligibility of the property should also be forwarded with the request.

The Keeper of the National Register will respond in writing to the facility's request within 45 days of receipt of a documented request submitted in accordance with 36 CFR 63.2(d) of these procedures. If the opinion of the OHPO is not included with the request, the Keeper of the National Register will provide to the OHPO with a copy of the request and will ask for his opinion on the property. If the Keeper does not receive a response within three weeks of the OHPO's receipt of a letter from the Keeper requesting an opinion, the Keeper will proceed with the determination and will inform the facility that the OHPO did not give an opinion. If the Keeper of the National Register determines that documentation submitted with the request is not sufficient to make a professional evaluation of the significance of the property, he will advise the facility in writing of the additional information needed.

5.1.8 National Historic Landmarks Designation and Recognition

In 1993, the Mound site received an honorary designation as a National Landmark from ASM International, a professional engineering organization. A plaque that commemorates Mounds contribution to the development of the nuclear industry was awarded as part of this designation. The plaque is posted on the

ornamental brick fence outside the OSE Building. This designation is not related to the National Park Service National Historic Landmark designation. Therefore, Mound has not identified any National Historic Landmark eligible areas. The procedures that follow would only be applied if Mound were to identify Landmark eligible areas.

The criteria for the evaluation of properties for possible designation as National Historic Landmarks, as extracted from the regulations, is as follows. According to 36 CFR 36, the quality of national significance is ascribed to districts, sites, buildings, structures, and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Heritage includes significance to history, architecture, archaeology, engineering, and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association.

To be eligible these properties must also meet one of the following criteria:

- (1) Properties that are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or
- (2) Properties that are associated importantly with the lives of persons nationally significant in the history of the United States; or
- (3) Properties that represent some great idea or ideal of the American people; or
- (4) Properties that embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or
- (5) Properties that are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or
- (6) Properties that have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States.

Such sites are those sites that have yielded, or which may reasonably be expected to yield, data affecting theories, concepts, and ideas to a major degree.

While not all of the following would be applicable to Mound, the regulations go on to state that ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that have achieved significance within the past 50 years are not eligible for designation. However, these types of properties will qualify if they fall within the following categories:

- (1) A religious property deriving its primary national significance from architectural or artistic distinction or historical importance; or
- (2) A building or structure removed from its original location but which is nationally significant primarily for its architectural merit, or for association with persons or events of transcendent importance in the nation's history and the association consequential; or
- (3) A site of a building or structure no longer standing but the person or event associated with it is of transcendent importance in the nation's history and the association consequential; or
- (4) A birthplace, grave or burial, if it is of a historical figure of transcendent national significance and no other appropriate site, building or structure directly associated with the productive life of that person exists; or
- (5) A cemetery that derives its primary national significance from graves of persons of transcendent importance, or from an exceptionally distinctive design or from an exceptionally significant event; or

- (6) A reconstructed building or ensemble of buildings of extraordinary national significance when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other buildings or structures with the same association have survived; or
- (7) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own national historical significance; or
- (8) A property achieving national significance within the past 50 years if it is of extraordinary national importance.

5.1.9 Future Location, Inventory, and Nomination of Cultural Resources to the National Register

The original 17 polonium processing related structures have been identified as historically significant. Any new discoveries of cultural significance will be evaluated pursuant to the National Register eligibility criteria. Any qualifying sites will be addressed in accordance with Section 5.1.7.

5.2 ARPA COMPLIANCE PROCEDURES

The ARPA established procedural requirements for federal facilities mandating increasing public awareness, planning and scheduling archaeological surveys, and reporting of suspected violations of these procedural requirements.

Mound at this time does not have ARPA regulated resources identified. As such, Mound does not have an active ARPA program (see Section 3.2). The section that follows, developed from the regulations, defines the elements of that program, if deemed necessary for the protection of archaeological resources in the future.

5.2.1 Increasing Public Awareness

If significant archaeological resources are discovered at the site during any of the undertakings associated with the site cleanup and transition activities, the facility will revise the Outreach Program to incorporate the procedures necessary to comply with the ARPA.

5.2.2 Planning and Scheduling Archaeological Surveys

The facility will evaluate work packages and planned excavations in order to determine if there is the potential for archaeological resources to be impacted. Additional surveys may be performed if these types of resources are discovered. The elements of this program are outlined in Section 5.1 above.

The facility shall, in the event of the discovery of archaeological resources during the site cleanup and/or transition of the site to the MMCIC, develop plans for surveying impacted areas to determine the nature and extent of archaeological resources affected. These activities will be consistent with the relevant technical standards, DOE requirements, and the procedures and processes in this CRMP. Survey plans will be designed to be protective of archaeological resources.

Guidance for the activities undertaken in this section are provided by the ACHP's guidance document titled *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation*.

5.2.3 Reporting Suspected Violations

If implemented, Mound intends to comply fully with the ARPA compliance procedures. If violations of the ARPA are noted, reporting will be performed in accordance with ARPA.

5.3 AIRFA PROCEDURES

The AIRFA states:

“On and after August 11, 1978, it shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.”

Under DOE guidelines, this is interpreted to mean that the CRMP shall include procedures that identify treaties with American tribes or where those tribes have an interest in the federal site in question, including documentation of tribal interest, Native Americans on staff to advise on AIRFA issues, determination of when AIRFA studies should be made, incorporation of interested parties when AIRFA issues are investigated, and facility or program policy and protocol for tribal consultation on the development of AIRFA issues.

Mound does at this time not have any AIRFA issues. If these issues are identified, through the course of investigations under the CRMP, Mound will develop AIRFA procedures incorporating these guidelines.

The requirements in the AIRFA have been promulgated into 43 CFR 7. These regulations, “Permit requirements and exceptions” state:

“(c) Persons carrying out official agency duties under the federal land manager's direction, associated with the management of archaeological resources, need not follow the permit application procedures of Sec. 7.6. However, the federal land manager shall insure that provisions of Secs. 7.8 and 7.9 have been met by other documented means, and that any official duties which might result in harm to or destruction of any Indian tribal religious or cultural site, as determined by the federal land manager, have been the subject of consideration under Sec. 7.7.”

Therefore, if the facility discovers resources subject to the AIRFA procedures, then the facility would be required to demonstrate compliance with the technical requirements that follow.

Sec. 7.7, “Notification to Indian tribes of possible harm to, or destruction of, sites on public lands having religious or cultural importance.” This provision states that if issuance of a permit under this part may result in harm to, or destruction of, any Indian tribal religious or cultural site on public lands, as determined by the federal land manager, at least 30 days before issuing such a permit the federal land manager shall notify any Indian tribe which may consider the site as having religious or cultural importance. If harm could result, the following would be required:

- (1) Notice, by the federal land manager to any Indian tribe, shall be sent to the chief executive officer or other designated official of the tribe. Indian tribes are encouraged to designate a tribal official to be the focal point for any notification and discussion between the tribe and the federal land manager.
- (2) The federal land manager may provide notice to any other Native American group that is known by the federal land manager to consider sites potentially affected as being of religious or cultural importance.
- (3) Upon request during the 30-day period, the federal land manager may meet with official representatives of any Indian tribe or group to discuss their interests, including ways to avoid or mitigate potential harm or destruction such as excluding sites from the permit area. Any mitigation measures, which are adopted, shall be incorporated into the terms and conditions of the permit under Sec. 7.9.

- (4) When the federal land manager determines that a permit applied for under this part must be issued immediately because of an imminent threat of loss or destruction of an archaeological resource, the federal land manager shall so notify the appropriate tribe.

In order to identify sites of religious or cultural importance, the federal land manager shall seek to identify all Indian tribes having aboriginal or historic ties to the lands under the federal land manager's jurisdiction and seek to determine, from the chief executive officer or other designated official of any such tribe, the location and nature of specific sites of religious or cultural importance so that such information may be on file for land management purposes. Information on sites eligible for or included in the National Register of Historic Places may be withheld from public disclosure pursuant to section 304 the AIFRA.

If the federal land manager becomes aware of a Native American group that is not an Indian tribe as defined in this part but has aboriginal or historic ties to public lands under the federal land manager's jurisdiction, the federal land manager may seek to communicate with official representatives of that group to obtain information on sites they may consider to be of religious or cultural importance.

The facility, if necessary, may enter into agreement with any Indian tribe or other Native American group for determining locations for which such tribe or group wishes to receive notice under this section.

The facility should also seek to determine, in consultation with official representatives of Indian tribes or other Native American groups, what circumstances should be the subject of special notification to the tribe or group after a permit has been issued. Circumstances calling for notification might include the discovery of human remains. In cases involving Native American human remains and other "cultural items," as defined by NAGPRA, the federal land manager is referred to NAGPRA and its implementing regulations.

5.4 NAGPRA COMPLIANCE PROCEDURES

The focus of the NAGPRA is to require protection and repatriation of Native American cultural items that are found on, and taken from federal or tribal lands. Procedural requirements are established for five areas of responsibility for a federal facility if it encounters regulated items during an undertaking.

Based upon the reports summarized in Section 3.2, Mound has no significant archaeological resources of the type regulated under the NAGPRA. Consequently, Mound does not have an active program in place under the NAGPRA. However, in the event that regulated archaeological finds are made at the Mound site, Mound will develop a program using the requirements under the NAGPRA and the implementing regulations (43 CFR 10), as follows.

5.4.1 Intentional Excavation and Removal of Native American Cultural Items

The procedures under this section are based upon the statutory requirements in the NAGPRA and the implementing regulations in 43 CFR 10.3.

The intentional removal from or excavation of Native American cultural items for purposes of discovery, study, or removal of such items is permitted only if:

- (1) such items are excavated or removed pursuant to a permit issued by the OHPO and ARPA;
- (2) such items are excavated or removed after consultation with or, in the case of tribal lands, consent of the appropriate (if any) Indian tribe or;
- (3) the ownership and right of control of the disposition of such items shall be as provided in 43 CFR 10; and
- (4) proof of consultation or consent is shown.

The regulations permit the intentional excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal or tribal lands only if:

- (1) The objects are excavated or removed following the requirements of the ARPA and 43 CFR 10. Procedures and requirements for issuing permits will be consistent with those required by the ARPA and its implementing regulations;
- (2) The objects are excavated after consultation with or, in the case of tribal lands, consent of, the appropriate Indian tribe or Native Hawaiian organization pursuant to 43 CFR 10.5;
- (3) The disposition of the objects is consistent with their custody as described in 43 CFR. 10.6; and
- (4) Proof of the consultation or consent is shown to the federal agency official or other agency official responsible for the issuance of the required permit.

The procedures under 43 CFR 10 state:

- (1) The federal agency official must take reasonable steps to determine whether a planned activity may result in the excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal lands. Prior to issuing any approvals or permits for activities, the federal agency official must notify in writing the Indian tribes that are likely to be culturally affiliated with any human remains, funerary objects, sacred objects, or objects of cultural patrimony that may be excavated. The federal agency official must also notify any present-day Indian tribe which aboriginally occupied the area of the planned activity and any other Indian tribes that the federal agency official reasonably believes are likely to have a cultural relationship to the human remains, funerary objects, sacred objects, or objects of cultural patrimony that are expected to be found. The notice must be in writing and describe the planned activity, its general location, the basis upon which it was determined that human remains, funerary objects, sacred objects, or objects of cultural patrimony may be excavated, and, the basis for determining likely custody pursuant to 43 CFR 10.6. The notice must also propose a time and place for meetings or consultations to further consider the activity, the federal agency's proposed treatment of any human remains, funerary objects, sacred objects, or objects of cultural patrimony that may be excavated, and the proposed disposition of any excavated human remains, funerary objects, sacred objects, or objects of cultural patrimony. Written notification should be followed up by telephone contact if there is no response in 15 days. Consultation must be conducted pursuant to 43 CFR 10.5.
- (2) Following consultation, the federal agency official must complete a written plan of action (described in 43 CFR 10.5(e)) and execute the actions called for in it.
- (3) If the planned activity is also subject to review under Section 106 of the NHPA, the federal agency official should coordinate consultation and any subsequent agreement for compliance conducted under that Act with the requirements of 43 CFR 10.3 (c)(2) and 43 CFR 10.5. Compliance with these regulations does not relieve federal agency officials of requirements to comply with Section 106 of the NHPA.
- (4) If an Indian tribe receives notice of a planned activity or otherwise becomes aware of a planned activity that may result in the excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony on tribal lands, the Indian tribe may take appropriate steps to: (i) Ensure that the human remains, funerary objects, sacred objects, or objects of cultural patrimony are excavated or removed following 43 CFR 10.3 (b), and (ii) make certain that the disposition of any human remains, funerary objects, sacred objects, or objects of cultural patrimony excavated intentionally or discovered inadvertently as a result of the planned activity are carried out following 43 CFR 10.6.

5.4.1.1 Consultation or Consent

The procedures for consultation and consent are included in Section 5.4.1, of this CRMP.

5.4.1.2 Ownership and right of control

Ownership and right of control procedures are included in Section 5.4.1, of this CRMP.

5.4.2 Inadvertent Discovery of Native American Cultural Items

The procedures under this section developed from Section 3(a), (b), and (c) of the NAGPRA and 43 CFR 10.4, and modified, in part, to be Mound site-specific, cover the intentional removal of Native American cultural items. Provisions to address NAGPRA relative to inadvertent discoveries at Mound are included in Environmental Practice Section 28.

The NAGPRA, at Section 3(d) mandates that any person who knows, or has reason to know, that such person has discovered Native American cultural items on federal or tribal lands shall notify the responsible agency in writing. If the discovery occurred in connection with an activity, including (but not limited to) construction, mining, logging, and agriculture, the person shall cease the activity in the area of the discovery, make a reasonable effort to protect the items discovered before resuming such activity, and provide notice under this subsection. Following the notification under this subsection, and upon certification by the Secretary of the department or the head of any agency or instrumentality of the United States or the appropriate Indian tribe or Native Hawaiian organization that notification has been received, the activity may resume 30 days after certification.

The disposition of and control over any cultural items excavated or removed shall be determined as provided for in the NAGPRA and the enacting regulations, the procedures for compliance with the requirements in NAGPRA and 43 CFR 10.4 (inadvertent discoveries). Since there are no tribal lands on the Mound site, the procedures for tribal lands has been deleted.

Discovery. Any person who knows or has reason to know that he or she has discovered inadvertently human remains, funerary objects, sacred objects, or objects of cultural patrimony on federal or tribal lands after November 17, 1990, must provide immediate telephone notification of the inadvertent discovery, with written confirmation, to the responsible federal agency official with respect to federal lands, and, with respect to tribal lands, to the responsible Indian tribe official. The requirements of these regulations regarding inadvertent discoveries apply whether or not an inadvertent discovery is duly reported. If written confirmation is provided by certified mail, the return receipt constitutes evidence of the receipt of the written notification by the federal agency official or Indian tribe official.

Ceasing activity. If the inadvertent discovery occurred in connection with an on-going activity on federal or tribal lands, the person, in addition to providing the notice described above, must stop the activity in the area of the inadvertent discovery and make a reasonable effort to protect the human remains, funerary objects, sacred objects, or objects of cultural patrimony discovered inadvertently.

Federal lands. As soon as possible, but no later than 3 working days after receipt of the written confirmation of notification with respect to federal lands described in 43 CFR 10.4 (b), the responsible federal agency official must:

1. Certify receipt of the notification;
2. Take immediate steps, if necessary, to further secure and protect inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony, including, as appropriate, stabilization or covering;
3. Notify by telephone, with written confirmation, the Indian tribes likely to be culturally affiliated with the inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony, the Indian tribe which aboriginally occupied the area, and any other Indian tribe that is reasonably known to have a cultural relationship to the human remains, funerary objects, sacred objects, or objects of cultural patrimony. This notification must include pertinent information as to kinds of human remains, funerary objects, sacred objects, or objects of cultural patrimony discovered inadvertently, their condition, and the circumstances of their inadvertent discovery;
4. Initiate consultation on the inadvertent discovery pursuant to 43 CFR 10.5;

5. If the human remains, funerary objects, sacred objects, or objects of cultural patrimony must be excavated or removed, follow the requirements and procedures in 43 CFR 10.3 (b) of these regulations;
6. Ensure that disposition of all inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony is carried out following 43 CFR 10.6.

Resumption of activity. The activity that resulted in the inadvertent discovery may resume thirty (30) days after certification by the notified federal agency of receipt of the written confirmation of notification of inadvertent discovery if the resumption of the activity is otherwise lawful. The activity may also resume, if otherwise lawful, at any time that a written binding agreement is executed between the federal agency and the affiliated Indian tribes that adopt a recovery plan for the excavation or removal of the human remains, funerary objects, sacred objects, or objects of cultural patrimony following 43 CFR 10.3 (b)(1). The disposition of all human remains, funerary objects, sacred objects, or objects of cultural patrimony must be carried out following 43 CFR 10.6.

Federal agency officials. Federal agency officials should coordinate their responsibilities under this section with their emergency discovery responsibilities under Section 106 of the NHPA, 36 CFR 800.12 or section 3 (a) of the NAGPRA. Compliance with these regulations does not relieve federal agency officials of the requirement to comply with Section 106 of the NHPA, 36 CFR 800.12 or section 3 (a) of the NAGPRA.

Notification requirement in authorizations. All federal authorizations to carry out land use activities on federal lands or tribal lands, including all leases and permits, must include a requirement for the holder of the authorization to notify the appropriate federal or tribal official immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony pursuant to 43 CFR 10.4 (b) of these regulations.

5.4.2.1 Discovery

The procedures for inadvertent discoveries are included in Section 5.4.2, of this CRMP.

5.4.2.2 Disposition and Control

The procedures for disposition and control of inadvertent discoveries are included in Section 5.4.2, of this CRMP.

5.4.3 Inventory of Native American Human Remains and Associated Funerary Objects

The procedures under this section, developed based upon the requirements in Section 5 of the NAGPRA and 43 CFR 10.9, and modified, in part, to be Mound site-specific, cover the inventorying of Native American cultural items.

Pursuant to the NAGPRA, the facility and each museum which has possession or control over holdings or collections of Native American human remains and associated funerary objects shall compile an inventory of such items and, to the extent possible based on information possessed by such museum or federal agency, identify the geographical and cultural affiliation of such item.

The requirements for management of this inventory, as excerpted from 43 CFR 10.9 "inventories," follow:

This section addresses the requirements the facility would follow for the possession or control over holdings or collections of human remains and associated funerary objects. Under this requirement, a facility possessing these collections must compile an inventory of such objects, and, to the fullest extent possible based on information possessed identify the geographical and cultural affiliation of each item. The purpose of the inventory is to facilitate repatriation by providing clear descriptions of human remains and associated funerary objects and establishing the cultural affiliation between these objects and present-day

Indian tribes. Federal agencies must ensure that these requirements are met for all collections from their lands or generated by their actions whether the collections are held by the federal agency or by a non-federal institution.

Consultation. Consultation must be conducted with:

- (1) Lineal descendants of individuals whose remains and associated funerary objects are likely to be subject to the inventory provisions of these regulations; and
- (2) Indian tribe officials and traditional religious leaders, a) from whose tribal lands the human remains and associated funerary objects originated; b) that are, or are likely to be, culturally affiliated with human remains and associated funerary objects; and
- (3) From whose aboriginal lands the human remains and associated funerary objects originated.

Initiation of consultation. Consultation must begin as early as possible, no later in the inventory process than the time at which investigation into the cultural affiliation of human remains and associated funerary objects is being conducted. Consultation may be initiated with a letter, but should be followed up by telephone or face-to-face dialogue.

Provision of information. During inventory consultation, the following information must be provided in writing to lineal descendants, when known, and to officials and traditional religious leaders representing Indian tribes or Native Hawaiian organizations that are, or are likely to be, culturally affiliated with the human remains and associated funerary objects.

- (1) A list of all Indian tribes and Native Hawaiian organizations that are, or have been, consulted regarding the particular human remains and associated funerary objects;
- (2) A general description of the conduct of the inventory;
- (3) The projected time frame for conducting the inventory; and
- (4) An indication that additional documentation used to identify cultural affiliation will be supplied upon request.

Requests for information. During the inventory consultation, as appropriate, the following information must be provided to groups that are associated with, or are likely to be, culturally affiliated with their collections:

- (1) Name and address of the Indian tribe official to act as representative in consultations related to particular human remains and associated funerary objects;
- (2) Recommendations on how the consultation process should be conducted, including:
 - (A) Names and appropriate methods to contact any lineal descendants of individuals whose remains and associated funerary objects are or are likely to be included in the inventory; and
 - (B) Names and appropriate methods to contact traditional religious leaders who should be consulted regarding the human remains and associated funerary objects.
- (3) Kinds of objects that the Indian tribe or Native Hawaiian organization reasonably believes to have been made exclusively for burial purposes or to contain human remains of their ancestors.

Required information. The following documentation must be included, if available, for all inventories completed:

- (1) Accession and catalogue entries, including the accession catalogue entries of human remains with which funerary objects were associated;
- (2) Information related to the acquisition of each object, including:
 - (A) The name of the person or organization from whom the object was obtained, if known;
 - (B) The date of acquisition;
 - (C) The place each object was acquired, i.e., name or number of site, county, state, and federal agency administrative unit, if applicable; and

- (D) The means of acquisition, i.e., gift, purchase, or excavation;
- (3) A description of each set of human remains or associated funerary object, including dimensions, materials, and, if appropriate, photographic documentation, and the antiquity of such human remains or associated funerary objects, if known;
- (4) A summary of the evidence, including the results of consultation, used to determine the cultural affiliation of the human remains and associated funerary objects.

Documents. Two separate documents comprise the inventory:

- (1) A listing of all human remains and associated funerary objects that are identified as being culturally affiliated with one or more present-day Indian tribes or Native Hawaiian organizations. The list must indicate for each item or set of items whether cultural affiliation is clearly determined or likely based upon the preponderance of the evidence; and
- (2) A listing of all culturally unidentifiable human remains and associated funerary objects for which no culturally affiliated present-day Indian tribe or Native Hawaiian organization can be determined.

Notification. If the inventory results in the identification or likely identification of the cultural affiliation of any particular human remains or associated funerary objects with one or more Indian tribes not later than six months after completion of the inventory, the facility must send such Indian tribes or Native Hawaiian organizations the inventory of culturally affiliated human remains and associated funerary objects, including all information required under 43 CFR 10.9 (c), and a notice of inventory completion that summarizes the results of the inventory.

The notice of inventory completion must summarize the contents of the inventory in sufficient detail so as to enable the recipients to determine their interest in claiming the inventoried items. It must identify each particular set of human remains or each associated funerary object and the circumstances surrounding its acquisition, and describe the human remains or associated funerary objects that are clearly identifiable as to cultural affiliation. The notice must also describe the human remains and associated funerary objects that are not clearly identifiable as being culturally affiliated with an Indian tribe but which, given the totality of circumstances surrounding acquisition of the human remains or associated objects, are identified as likely to be culturally affiliated with a particular Indian tribe.

If the inventory results in a determination that the human remains are of an identifiable individual, the facility must convey this information to the lineal descendant of the deceased individual, if known, and to the Indian tribe of which the deceased individual was culturally affiliated.

The notice of inventory completion and a copy of the inventory must also be sent to the facility Consulting Archaeologist. These submissions should be sent in both printed hard copy and electronic formats. Information on the proper format for electronic submission and suggested alternatives for museums and federal agencies unable to meet these requirements are available from the Departmental Consulting Archaeologist.

Upon request by an Indian tribe that has received or should have received a notice of inventory completion and a copy of the inventory as described above, the facility must supply additional available documentation to supplement the information provided with the notice. For these purposes, the term documentation means a summary of existing museum or federal agency records. This documentation shall include inventories or catalogues, relevant studies, or other pertinent data for the limited purpose of determining the geographical origin, cultural affiliation, and basic facts surrounding the acquisition and accession of human remains and associated funerary objects.

If the facility has possession of or control over human remains that cannot be identified as affiliated with a particular individual, Indian tribes the facility must provide the Department Consulting Archaeologist notice of this result and a copy of the list of culturally unidentifiable human remains and associated

funerary objects. The Departmental Consulting Archaeologist must make this information available to members of the Review Committee. 43 CFR 10.11 sets forth procedures for disposition of culturally unidentifiable human remains of Native American origin. The facility must retain possession of such human remains unless legally required to manage the remains in another way, or recommended to do otherwise by the Secretary of the Interior.

The Departmental Consulting Archaeologist must publish notices of inventory completion received in the Federal Register.

Completion. The regulations required that inventories be completed not later than November 17, 1995. These regulations also stated that a good faith effort to complete an inventory, even if it could not be completed by this deadline, could request an extension of the time requirements from the Secretary. An indication of good faith efforts must include, but not necessarily be limited to, the initiation of active consultation and documentation regarding the collections and the development of a written plan to carry out the inventory process. Minimum components of an inventory plan are: a definition of the steps required; the position titles of the persons responsible for each step; a schedule for carrying out the plan; and a proposal to obtain the requisite funding.

5.4.3.1 Inventory Compilation

The required information for this section is included in Section 5.4.3 above.

5.4.3.2 Consultation

The required information for this section is included in Section 5.4.3 above.

5.4.3.3 Supplemental Documentation

The required information for this section is included in Section 5.4.3 above.

5.4.3.4 Notification

The required information for this section is included in Section 5.4.3 above.

5.4.4. Summary of Native American Unassociated Funerary Objects, Sacred Objects, and Cultural Patrimony

Section 6 of the NAGPRA provides the requirements for the management of unassociated funerary objects, sacred objects, and cultural patrimony. In accordance with this section each federal agency or museum which has possession or control over holdings or collections of Native American unassociated funerary objects, sacred objects, or objects of cultural patrimony shall provide a written summary of such objects based upon availability.

The content of this section consists of a summary of the requirements in the corresponding section in the regulations. The requirements are as follows:

The purpose of the summary is to provide information about the collections to lineal descendants and culturally affiliated Indian tribes that may wish to request repatriation of such objects. The summary serves in lieu of an object-by-object inventory of these collections, although, if an inventory is available, it may be substituted. Federal agencies are responsible for ensuring that these requirements are met for all collections from their lands or generated by their actions whether the collections are held by the federal agency or by a non-federal institution.

Contents of summaries. For each collection or portion of a collection, the summary must include: an estimate of the number of objects in the collection or portion of the collection; a description of the kinds of

objects included; reference to the means, date(s), and location(s) in which the collection or portion of the collection was acquired, where readily ascertainable; and information relevant to identifying lineal descendants, if available, and cultural affiliation.

Consultation. Consulting is required with with Indian tribe officials and traditional religious leaders:

- (i) From whose tribal lands unassociated funerary objects, sacred objects, or objects of cultural patrimony originated;
- (ii) That are, or are likely to be, culturally affiliated with unassociated funerary objects, sacred objects, or objects of cultural patrimony; and
- (iii) From whose aboriginal lands unassociated funerary objects, sacred objects, or objects of cultural patrimony originated.

Officials must begin summary consultation no later than the completion of the summary process. Consultation may be initiated with a letter, but should be followed up by telephone or face-to-face dialogue with the appropriate Indian tribe official.

During the summary consultation, the facility must provide copies of the summary to lineal descendants, when known, and to officials and traditional religious leaders representing Indian tribes that are, or are likely to be, culturally affiliated with the cultural items. A copy of the summary must also be provided to the Departmental Consulting Archaeologist. Upon request by lineal descendants or Indian tribe officials, facility officials must provide lineal descendants, Indian tribe officials and traditional religious leaders with access to records, catalogues, relevant studies, or other pertinent data for the limited purposes of determining the geographic origin, cultural affiliation, and basic facts surrounding acquisition and accession of objects covered by the summary. Access to this information may be requested at any time and must be provided in a reasonable manner to be agreed upon by all parties. The Review committee also must be provided access to such materials.

During the summary consultation, facility officials must request, as appropriate, the following information from Indian tribes that are, or are likely to be, culturally affiliated with their collections:

- (i) Name and address of the Indian tribe official to act as representative in consultations related to particular objects;
- (ii) Recommendations on how the consultation process should be conducted, including:
 - Names and appropriate methods to contact any lineal descendants, if known, of individuals whose unassociated funerary objects or sacred objects are included in the summary;
 - Names and appropriate methods to contact any traditional religious leaders that the Indian tribe or Native Hawaiian organization thinks should be consulted regarding the collections; and
 - Kinds of cultural items that the Indian tribe may be interested in.

Museum and federal agency officials must document the following information regarding unassociated funerary objects, sacred objects, and objects of cultural patrimony in their collections and must use this documentation in determining the individuals, Indian tribes, and Native Hawaiian organizations with which they are affiliated:

- (1) Accession and catalogue entries;
- (2) Information related to the acquisition of unassociated funerary object, sacred object, or object of cultural patrimony, including:
 - the name of the person or organization from whom the object was obtained, if known;
 - The date of acquisition;
 - The place each object was acquired, i.e., name or number of site, county, state, and federal agency administrative unit, if applicable; and

- The means of acquisition, i.e., gift, purchase, or excavation;
- (3) A description of each unassociated funerary object, sacred object, or object of cultural patrimony, including dimensions, materials, and photographic documentation, if appropriate, and the antiquity of such objects, if known;
- (4) A summary of the evidence used to determine the cultural affiliation of the unassociated funerary objects, sacred objects, or objects of cultural patrimony as required by 43 CFR Sec. 10.14

Notification. Repatriation of unassociated funerary objects, sacred objects, or objects of cultural patrimony to lineal descendants, or culturally affiliated Indian tribes, as determined pursuant to 43 CFR 10.10 (a), must not proceed prior to submission of a notice of intent to repatriate to the Departmental Consulting Archaeologist, and publication of the notice of intent to repatriate in the Federal Register. The notice of intent to repatriate must describe the unassociated funerary objects, sacred objects, or objects of cultural patrimony being claimed in sufficient detail so as to enable other individuals, Indian tribes or to determine their interest in the claimed objects. It must include information that identifies each claimed unassociated funerary object, sacred object, or object of cultural patrimony and the circumstances surrounding its acquisition, and describes the objects that are clearly identifiable as to cultural affiliation. It must also describe the objects that are not clearly identifiable as being culturally affiliated with a particular Indian tribe, but which, given the totality of circumstances surrounding acquisition of the objects, are likely to be culturally affiliated with a particular Indian tribe. The Departmental Consulting Archaeologist must publish the notice of intent to repatriate in the Federal Register. Repatriation may not occur until at least thirty (30) days after publication of the notice of intent to repatriate in the Federal Register.

5.4.4.1 Summary

The required information for this section is included in Section 5.4.4 above.

5.4.4.2 Consultation

The required information for this section is included in Section 5.4.4 above.

5.4.4.3 Access

The required information for this section is included in Section 5.4.4 above.

5.4.5 Repatriation of Native American Cultural Items

The NAGPRA, in Section 7(a)(5), (b), (c), and (e) governs repatriation. Repatriation of Native American cultural items possessed or controlled by federal agencies and museums. The regulations governing these requirements have been promulgated at 43 CFR 10.10. The requirements follow:

Upon the request of a lineal descendant or Indian tribe, a museum or federal agency must expeditiously repatriate Native American cultural items if all the following criteria are met:

- (1) The object meets the definitions established in 43 CFR 10.2 (d)(2)(ii), (d)(3), or (d)(4); and
- (2) The cultural affiliation of the object is established:
 - (A) through the summary, consultation, and notification procedures in Sec. 10.14 of these regulations; or
 - (B) by presentation of a preponderance of the evidence by a requesting Indian tribe pursuant to the NAGPRA; and,
 - (C) The known lineal descendant or culturally affiliated Indian tribe presents evidence which, if standing alone before the introduction of evidence to the contrary, would support a finding that the museum or federal agency does not have a right of possession to the objects as defined in 43 CFR 10.10 (a)(2); and
 - (D) DOE or museum is unable to present evidence to the contrary proving that it does have a right of possession as defined below; and

(E) None of the specific exceptions listed in 43 CFR 10.10 (c) apply.

For purposes of this section, "right of possession" means possession obtained with the voluntary consent of an individual or group that had authority of alienation. The original acquisition of a Native American cultural item from an Indian tribe or with the voluntary consent of an individual or group with authority to alienate such object is deemed to give right of possession to that object.

Notification. Repatriation must take place within ninety (90) days of receipt of a written request for repatriation that satisfies the requirements of paragraph (a)(1) of this section from a lineal descendent or culturally affiliated Indian tribe, provided that the repatriation may not occur until at least thirty (30) days after publication of the notice of intent to repatriate in the Federal Register as described in 43 CFR. 10.

Upon the request of a lineal descendant, Indian tribe, or Native Hawaiian organization, a museum or federal agency must expeditiously repatriate unassociated funerary objects, sacred objects, or objects of cultural patrimony if all the following criteria are met:

- (1) The object meets the definitions established in Sec. 10.2 (b) (4), (5) or (6);
- (2) The cultural affiliation of the object is established:
 - (A) Through the summary, consultation, and notification procedures in Sec. 10.14 of these regulations; or
 - (B) By presentation of a preponderance of the evidence by a requesting Indian tribe or Native Hawaiian organization pursuant to section 7(c) of the Act; and
- (3) The known lineal descendant or culturally affiliated Indian tribe or Native Hawaiian organization presents evidence which, if standing alone before the introduction of evidence to the contrary, would support a finding that the museum or federal agency does not have a right of possession to the objects as defined in Sec. 10.10 (a)(2);
- (4) DOE or museum is unable to present evidence to the contrary proving that it does have a right of possession as defined below; and
- (5) None of the specific exceptions listed in Sec. 10.10 (c) apply.

Right of possession. Right of possession means possession obtained with the voluntary consent of an individual or group that had authority of alienation. The original acquisition of a Native American cultural items from an Indian tribe organization with the voluntary consent of an individual or group with authority to alienate such object is deemed to give right of possession to that object.

These requirements for repatriation do not apply to:

- (1) Circumstances where Native American cultural items are indispensable to the completion of a specific scientific study, the outcome of which is of major benefit to the United States. Human remains, funerary objects, sacred objects, or objects of cultural patrimony in such circumstances must be returned no later than ninety (90) days after completion of the study; or
- (2) Circumstances where there are multiple requests for repatriation of human remains, funerary objects, sacred objects, or objects of cultural patrimony and the museum or federal agency, after complying with these regulations, cannot determine by a preponderance of the evidence which requesting party is the most appropriate claimant. In such circumstances, the museum or federal agency may retain the Native American cultural items until such time as the requesting parties mutually agree upon the appropriate recipient or the dispute is otherwise resolved pursuant to these regulations or as ordered by a court of competent jurisdiction;
- (3) Circumstances where a court of competent jurisdiction has determined that the repatriation of the Native American cultural items in the possession or control of a museum would result in a taking of property without just compensation within the meaning of the Fifth Amendment of the United States Constitution, in which event the custody of the objects must be as provided under otherwise applicable law. Nothing in these regulations must prevent a museum or federal agency, where otherwise so authorized, or a lineal descendant or Indian tribe from expressly relinquishing title to right of possession of, or control over any Native American cultural items.

- (4) Circumstances where the repatriation is not consistent with other repatriation limitations identified in 43 CFR. 10.15 of these regulations.

Native American cultural items must be accomplished in consultation with the requesting lineal descendants, or culturally affiliated Indian tribe as appropriate, to determine the place and manner of the repatriation.

The facility must inform the recipients of repatriations of any presently known treatment of the Native American cultural items with pesticides, preservatives, or other substances that represent a potential hazard to the objects or to persons handling the objects.

The facility must adopt internal procedures adequate to permanently document the content and recipients of all repatriations.

The facility at the request of the Indian tribe official may take such steps as are considered necessary pursuant to otherwise applicable law, to ensure that information of a particularly sensitive nature is not made available to the general public.

Culturally unidentifiable human remains. If the cultural affiliation of human remains cannot be established pursuant to these regulations, the human remains must be considered culturally unidentifiable. The facility officials must report the inventory information regarding such human remains in their holdings to the Departmental Consulting Archaeologist who will transmit this information to the Review Committee. The review Committee is responsible for compiling an inventory of culturally unidentifiable cultural items in the possession or control of each museum and federal agency, and for recommending to the Secretary specific actions for disposition of such human remains.

5.4.5.1 Repatriation of Culturally Affiliated Native American Human Remains and Associated Funerary Objects

The required information for this section is included in Section 5.4.5 above.

5.4.5.2 Repatriation of Culturally Affiliated Native American Unassociated Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony

The required information for this section is included in Section 5.4.5 above.

5.4.5.3 Repatriation of Culturally Unaffiliated or Uninventoried Native American Human Remains and Funerary Objects

The required information for this section is included in Section 5.4.5 above.

5.4.5.4 Sharing of Information

The required information for this section is included in Section 5.4.5 above.

5.5 **36 CFR PART 79 COMPLIANCE PROCEDURES**

This section includes requirements on the curation of site owned and administered archaeological collections. There are requirements pertaining to the following six areas:

1. management of collections;
2. preservation of collections;
3. methods to secure curatorial services;
4. terms and conditions of contracts, memoranda, and agreements for curatorial services;

5. standards to determine when a repository possesses the capability to provide long-term curatorial services;
6. use of collections; and
7. conduct of inspections and inventories. In this section, any pertinent introductory comments concerning compliance with the curation requirements by the facility or program can be prepared.

5.5.1 Management and Preservation of Collections

Mound, as required by federal regulation (36 CFR 79), is responsible for the long-term management and preservation of preexisting and new Cultural Resource collections. As required by these regulations, such collections shall be placed in a repository with adequate long-term curatorial capabilities, appropriate to the nature and content of the collections.

5.5.1.1 Preexisting Collections

36 CFR 79 establishes requirements for preexisting collections defined as those collections that predate the effective date of the regulations in 36 CFR 79. The Mound collection, housed at the Laboratory of Anthropology at Wright State University, in Dayton Ohio, was gathered in 1987, as part of the 1987 archaeological study of undeveloped acreage at the Mound site. By definition this collection is not subject to these requirements, because they are of twentieth century origin, from the farmsteads that post-dated the Native American tribes that might have inhabited the area. In November 1998, ESC managers visited the Laboratory of Anthropology to determine the status of the Mound artifacts. The trip report for this visit notes that the collection, according to Wright State Archaeological staff, is stored in accordance with OHPO guidelines.

The affected facility shall identify repositories, and review and evaluate the curatorial services that are being provided to preexisting collections. If the facility determines that such a repository does not have the capability to provide adequate long-term curatorial services, as set forth in 36 CFR 79.9, the facility must either:

- (1) Enter into or amend an existing contract, memorandum, agreement, or other appropriate written instrument for curatorial services for the purpose of:
 - (i) Identifying specific actions that should be taken by the repository, by the federal agency, or by any other appropriate party to eliminate inadequacies in the curation of collections;
 - (ii) Specifying a reasonable period of time and a schedule within which the actions shall be completed; and
 - (iii) Specifying any necessary funds or services that shall be provided by the repository, the federal agency or other appropriate party to complete the actions; or
- (2) Remove the collections from the repository and deposit them in another repository that can provide such services in accordance with the regulations in this part. Prior to moving any collection that is from Indian lands, the federal Agency Official must obtain the written consent of the Indian landowner and the Indian tribe having jurisdiction over the lands.

5.5.1.2 New Collections

36 CFR 79 establishes requirements for new collections that would be applicable to any new discoveries of cultural resources at Mound.

Under the requirements in 36 CFR 79(5), a facility possessing a collection meeting the requirements of this section of 36 CFR shall deposit the collection in a repository determined to meet the following:

- (1) The repository has the capability to provide adequate long-term curatorial services, as set forth in 36 CFR 79.9;

- (2) The repository's facilities, written curatorial policies, and operating procedures are consistent with the regulations;
- (3) The repository has certified, in writing, that the collection shall be cared for, maintained and made accessible in accordance with the regulations in this part and any terms and conditions that are specified by the facility;
- (4) When the collection is from Indian lands, written consent to the disposition has been obtained from the Indian landowner and the Indian tribe having jurisdiction over the lands;
- (5) The initial processing of the material remains (including appropriate cleaning, sorting, labeling, cataloging, stabilizing, and packaging) has been completed, and associated records have been prepared and organized in accordance with the repository's processing and documentation procedures.

5.5.1.3 Administrative Records

The facility shall maintain administrative records on the disposition of each collection including, but not limited to:

- (1) The name and location of the repository where the collection is deposited;
- (2) A copy of the contract, memorandum, agreement or other appropriate written instrument, and any subsequent amendments between the federal agency, the repository, and any other party for curatorial services;
- (3) A catalog list of the contents of the collection that is deposited in the repository;
- (4) A list of any other federal personal property that is furnished to the repository as a part of the contract, memorandum, agreement or other appropriate written instrument for curatorial services;
- (5) Copies of reports documenting inspections, inventories and investigations of loss, damage or destruction that are conducted pursuant to 36 CFR 79.11 of this part; and
- (6) Any subsequent permanent transfer of the collection (or a part thereof) to another repository.

5.5.2 Methods to Secure Curatorial Services

The following sections would apply to any additional discoveries of cultural resources made at Mound. The facility may secure curatorial services using a variety of methods, subject to federal procurement and property management statutes, regulations, and any agency-specific statutes and regulations on the management of museum collections. Methods that may be used to secure curatorial services include, but are not limited to:

- (1) Placing the collection in a repository that is owned, leased, or otherwise operated by/for the federal agency;
- (2) Entering into a contract or purchase order with a repository for curatorial services;
- (3) Entering into a cooperative agreement, a memorandum of understanding, a memorandum of agreement or other agreement, as appropriate, with a State, local or Indian tribal repository, a university, museum or other scientific or educational institution that operates or manages a repository, for curatorial services;
- (4) Entering an interagency agreement with another federal agency for curatorial services;
- (5) Transferring the collection to another federal agency for preservation; and
- (6) For archaeological activities permitted on public or Indian lands under the ARPA, the AIFRA or other authority, requiring the archaeological permittee to provide for curatorial services as a condition to the issuance of the archaeological permit.

Guidelines for selecting a repository. When possible, the collection should be deposited in a repository that:

- (1) Is in the State of origin;
- (2) Stores and maintains other collections from the same site or project location; or

- (3) Houses collections from a similar geographic region or cultural area.

The collection should not be subdivided and stored at more than a single repository unless such subdivision is necessary to meet special storage, conservation, or research needs.

Except when non-federally-owned material remains are retained and disposed of by the owner, material remains and associated records should be deposited in the same repository to maintain the integrity and research value of the collection.

5.5.3 Methods to fund curatorial services.

Federal agencies may fund a variety of curatorial activities using monies appropriated annually by the U.S. Congress, subject to any specific statutory authorities or limitations applicable to a particular agency. As appropriate, curatorial activities that may be funded by federal agencies include, but are not limited to:

- (1) Purchasing, constructing, leasing, renovating, upgrading, expanding, operating, and maintaining a repository that has the capability to provide adequate long-term curatorial services as set forth in 36 CFR 79.9 of this part;
- (2) Entering into and maintaining on a cost-reimbursable or cost-sharing basis a contract, memorandum, agreement, or other appropriate written instrument with a repository that has the capability to provide adequate long-term curatorial services as set forth in 36 CFR 79.9 of this part;
- (3) As authorized under section 110(g) of the NHPA (17 U.S.C. 470h-2), reimbursing a grantee for curatorial costs paid by the grantee as a part of the grant project;
- (4) As authorized under section 110(g) of the NHPA (17 U.S.C. 470h-2), reimbursing a State for curatorial costs paid by the State agency to carry out the historic preservation responsibilities of the federal agency;
- (5) Conducting inspections and inventories in accordance with 36 CFR 79.11 of this part; and
- (6) When a repository that is housing and maintaining a collection can no longer provide adequate long-term curatorial services, as set forth in 36 CFR 79.9 of this part, either:
 - (A) Providing such funds or services as may be agreed upon pursuant to 36 CFR 79.5(a)(1) of this part to assist the repository in eliminating the deficiencies; or
 - (B) Removing the collection from the repository and depositing it in another repository that can provide curatorial services in accordance with the regulations in this part.

As authorized under NHPA and its Amendments, for federally licensed or permitted projects or programs, federal agencies may charge licensees and permittees reasonable costs for curatorial activities associated with identification, surveys, evaluation and data recovery as a condition to the issuance of a federal license or permit.

Federal agencies may deposit collections in a repository that agrees to provide curatorial services at no cost to the U.S. Government. This generally occurs when a collection is excavated or removed from public or Indian lands under a research permit issued pursuant to the Antiquities Act (17 U.S.C. 431- 433) or the ARPA. A repository also may agree to provide curatorial services as a public service or as a means of ensuring direct access to a collection for long-term study and use. Federal agencies should ensure that a repository that agrees to provide curatorial services at no cost to the U.S. Government has sufficient financial resources to support its operations and any needed improvements.

Funds provided to a repository for curatorial services should include costs for initially processing, cataloging, and accessioning the collection as well as costs for storing, inspecting, inventorying, maintaining, and conserving the collection on a long-term basis, as follows:

- (1) Funds to initially process, catalog, and access a collection to be generated during identification and evaluation survey should be included in project planning budgets.
- (2) Funds to initially process and catalog a collection generated during data recovery operations should be included in project mitigation budgets.
- (3) Funds to store, inspect, inventory, maintain, and conserve a collection on a long-term basis should be included in annual operating budget.

When the federal Agency Official determines that data recovery costs may exceed the 1% limitation contained in the AHPA as authorized under section 208(3) of the NHPA Amendments, the limitation may be waived, in appropriate cases, after the federal Agency Official has:

- (1) Obtained the concurrence of the Secretary of the U.S. Department of the Interior by sending a written request to the Departmental Consulting Archaeologist, National Park Service; and,
- (2) Notified the Committee on Energy and Natural Resources of the U.S. Senate and the Committee on Interior and Insular Affairs of the U.S. House of Representatives.

BWXT of Ohio will seek additional funding for cultural services, if necessary, from DOE.

5.5.4 Terms and conditions of contracts, memoranda and agreements for curatorial services.

The facility shall ensure that any contract, memorandum, agreement, or other appropriate written instrument for curatorial services that is entered into or on behalf of an Official, a Repository Official, and any other appropriate party, contains the following:

- (1) A statement that identifies the collection or group of collections to be covered and any other U.S. Government-owned personal property to be furnished to the repository;
- (2) A statement that identifies who owns and has jurisdiction over the collection;
- (3) A statement of work to be performed by the repository;
- (4) A statement of the responsibilities of the federal agency and any other appropriate party;
- (5) When the collection is from Indian lands include:
 - i) Consent to the disposition; and
 - ii) Such terms and conditions as may be requested by the Indian landowner and the Indian tribe.
- (6) When the collection is from a site on public lands that the federal Agency Official has determined is of religious or cultural importance to any Indian tribe having aboriginal or historic ties to such lands, such terms and conditions as may have been developed pursuant to the regulations at 43 CFR 7, 36 CFR 296, 18 CFR 1312, and 32 CFR 229;
- (7) The term of the contract, memorandum or agreement; and procedures for modification, suspension, extension, and termination.

5.5.5 Repository Standards

The facility shall determine that a repository has the capability to provide adequate long-term curatorial services when the repository is able to:

- (a) Collect, label, catalog, store, maintain, inventory and conserve the particular collection on a long-term basis using professional museum and archival practices; and
- (b) Comply with the following, as appropriate to the nature and consent of the collection:
 - (1) Maintain complete and accurate records of the collection, including:
 - Records on acquisitions;
 - Catalog and artifact inventory lists;

- Descriptive information, including field notes, site forms, and reports;
 - Photographs, negatives, and slides;
 - Location information, including maps;
 - Information on the condition of the collection, including any completed conservation treatments;
 - Approved loans and other uses;
 - Inventory and inspection records, including any environmental monitoring records;
 - Records on lost, deteriorated, damaged or destroyed Government property; and
 - Records on any decisions and subsequent transfers, repatriations or discards, as approved by the federal Agency Official;
- (2) Dedicate the requisite facilities, equipment, and space in the physical plant to properly store, study, and conserve the collection. Space used for storage, study, conservation and, if exhibited, any exhibition must not be used for non-curatorial purposes that would endanger or damage the collection;
- (3) Keep the collection under physically secure conditions within storage, laboratory, study, and any exhibition areas by:
- Having the physical plant meet local electrical, fire, building, health, and safety codes;
 - Having an appropriate and operational fire detection and suppression system;
 - Having an appropriate and operational intrusion detection and deterrent system;
 - Having an adequate emergency management plan that establishes procedures for responding to fires, floods, natural disasters, civil unrest, acts of violence, structural failures, and failures of mechanical systems within the physical plant;
 - Providing fragile or valuable items in a collection with additional security such as locking the items in a safe, vault, or museum specimen cabinet, as appropriate;
 - Limiting and controlling access to keys, the collection, and the physical plant; and
 - Inspecting the physical plant in accordance with 36 CFR 79.11 of this part for possible security weaknesses and environmental control problems, and taking necessary actions to maintain the integrity of the collection;
- (4) Require staff and any consultants who are responsible for managing and preserving the collection be qualified museum professionals;
- (5) Handle, store, clean, conserve and, if exhibited, exhibit the collection in a manner that:
- Is appropriate to the nature of the material remains and associated records;
 - Protects them from breakage and possible deterioration from adverse temperature and relative humidity, visible light, ultraviolet radiation, dust, soot, gases, mold, fungus, insects, rodents, and general neglect; and
 - Preserves data that may be studied in future laboratory analyses. When material remains in a collection are to be treated with chemical solutions or preservatives that will permanently alter the remains, when possible, retain untreated representative samples of each affected artifact type, environmental specimen, or other category of material remains to be treated. Untreated samples should not be stabilized or conserved beyond dry brushing;
- (6) Store site forms, field notes, artifacts inventory lists, computer disks and tapes, catalog forms, and a copy of the final report in a manner that will protect them from theft and fire such as:

- Storing the records in an appropriate insulated, fire resistant, locking cabinet, safe, vault or other container, or in a location with a fire suppression system;
 - Storing a duplicate set of records in a separate location; or
 - Ensuring that records are maintained and accessible through another party. For example, copies of final reports and site forms frequently are maintained by the State Historic Preservation Officer, the State Archaeologist or the State museum or university. The Tribal Historic Preservation Officer and Indian tribal museum ordinarily maintains records on collections recovered from sites located on Indian lands. The National Technical Information Service and the Defense Technical Information Service maintain copies of final reports that have been deposited by federal agencies. The National Archaeological Database maintains summary information on archaeological reports and projects, including information on the location of those reports.
- (7) Inspect the collection in accordance with 36 CFR 79.11 of this part for possible deterioration and damage, and perform only those actions as are absolutely necessary to stabilize the collection and rid it of any agents of deterioration;
- (8) Conduct inventories in accordance with 36 CFR 79.11 of this part to verify the location of the material remains, associated records, and any other federal personal property that is furnished to the repository; and
- (9) Provide access to the collection in accordance with 36 CFR 79.10 of this part.

5.5.6 Use of Collections.

The facility shall ensure that the Repository Official makes the collection available for scientific, educational and religious uses, subject to such terms and conditions as are necessary to protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection

5.5.6.1 Scientific and Educational Uses

A collection shall be made available to qualified professionals for study, loan, and use for such purposes as in-house and traveling exhibits, teaching, public interpretation, scientific analysis, and scholarly research. Qualified professionals would include, but not be limited to, curators, conservators, collection managers, exhibitors, researchers, scholars, archaeological contractors, and educators. Students may use a collection when under the direction of a qualified professional.

Any resulting exhibits and publications shall acknowledge the repository as the curatorial facility and the facility as the owner or administrator, as appropriate. When the collection is from Indian lands and the Indian landowner and the Indian tribe having jurisdiction over the lands wish to be identified, those individuals and the Indian tribe shall also be acknowledged. Copies of any resulting publications shall be provided to the Repository Official and the owner. When Indian lands are involved, copies of such publications shall also be provided to the Tribal Official and the Tribal Historic Preservation Officer, if any, of the Indian tribe that owns or has jurisdiction over such lands.

5.5.6.2 Religious Uses

Religious remains in a collection shall be made available to persons for use in religious rituals or spiritual activities. Religious remains generally are of interest to medicine men and women, and other religious practitioners and persons from Indian tribes, Alaskan Native corporations, Native Hawaiians, and other indigenous and immigrant ethnic, social, and religious groups that have aboriginal or historic ties to the lands from which the remains are recovered, and have traditionally used the remains or class of remains in religious rituals or spiritual activities.

5.5.6.3 Terms and Conditions of Uses

The facility shall restrict access to associated records that contain information relating to the nature, location, or character of a prehistoric or historic resource unless the federal Agency Official determines that such disclosure would not create a risk of harm, theft, or destruction to the resource or to the area or place where the resource is located.

36 CFR 296, 18 CFR 1312, and 32 CFR 229 set forth procedures whereby information relating to the nature, location, or character of a prehistoric or historic resource may be made available to the Governor of any State. The facility may make information available to other persons who, following the procedures in the regulations, demonstrate that the disclosure will not create a risk of harm, theft or destruction to the resource or to the area or place where the resource is located. Other persons generally would include, but not be limited to, archaeological contractors, researchers, scholars, tribal representatives, federal, State and local agency personnel, and other persons who are studying the resource or class or resources.

When a collection is from Indian lands, the federal Agency Official shall place such terms and conditions as may be requested by the Indian landowner and the Indian tribe having jurisdiction over the lands on:

1. Scientific, educational, or religious uses of material remains; and
2. Access to associated records that contain information relating to the nature, location, or character of the resource.

When a collection is from a site on public lands that the facility has determined is of religious or cultural importance to any Indian tribe having aboriginal or historic ties to such lands, the facility shall place such terms and conditions as may have been developed on:

1. Scientific, educational or religious uses of material remains; and
2. Access to associated records that contain information relating to the nature, location, or character of the resource.

The facility shall not allow uses that would alter, damage, or destroy an object in a collection unless the facility determines that such use is necessary for scientific studies or public interpretation, and the potential gain in scientific or interpretive information outweighs the potential loss of the object. When possible, such use should be limited to unprotected, non-unique, non-fragile objects, or to a sample of objects drawn from a larger collection of similar objects.

5.5.6.4 Written Agreements for Use

No collection (or a part thereof) shall be loaned to any person without a written agreement between the Repository Official and the borrower that specifies the terms and conditions of the loan.

1. The collection or object being loaned;
2. The purpose of the loan;
3. The length of the loan;
4. Any restrictions on scientific, educational, or religious uses, including whether any object may be altered, damaged, or destroyed;
5. Except as provided in 36 CFR 79.10, that the borrower shall handle the collection or object being borrowed during the term of the loan in accordance with this part so as not to damage or reduce its scientific, educational, religious or cultural value; and
6. Any requirements for insuring the collection or object being borrowed for any loss, damage, or destruction during transit and while in the borrower's possession.

5.5.7 Conduct of Inspections and Inventories

Inspections and inventories specified below shall be conducted periodically in accordance with the federal Property and Administrative Services Act regulations at 41 CFR 101. Inspections and inventories shall also take into account any agency-specific regulations on the management of federal property, and any agency-specific statutes and regulations on the management of museum collections.

The facility shall ensure that the Repository Official:

1. Provides the federal Agency Official and, when the collection is from Indian lands, the Indian landowner and the Tribal Official of the Indian tribe that has jurisdiction over the lands with a copy of the catalog list of the contents of the collection received by the repository;
2. Provides the federal Agency Official with a list of any other U.S. Government-owned personal property received by the repository;
3. Periodically inspects the physical plant for the purpose of monitoring the physical security and environmental control measures;
4. Periodically inspects the collection for the purposes of assessing the condition of the material remains and associated records, and of monitoring those remains and records for possible deterioration and damage;
5. Periodically inventories the collection by attainment groupings, lot, or catalog record for the purpose of verifying the location of the material remains and associated records;
6. Periodically inventories any other U.S. Government-owned personal property in the possession of the repository;
7. Has qualified museum professionals conduct the inspections and inventories;
8. Following each inspection and inventory, prepares and provides the federal Agency Official with a written report of the results of the inspection and inventory, including the status of the collection, treatments completed and recommendations for additional treatments. When the collection is from Indian lands, the Indian landowner and the Tribal Official of the Indian tribe that has jurisdiction over the lands shall also be provided with a copy of the report;
9. Within five (5) days of the discovery of any loss or theft of, deterioration and damage to, or destruction of the collection (or a part thereof) or any other U.S. Government-owned personal property, prepares and provides the federal Agency Official with a written notification of the circumstances surrounding the loss, theft, deterioration, damage, or destruction. When the collection is from Indian lands, the Indian landowner and the Tribal Official and the Indian tribe that has jurisdiction over the lands shall also be provided with a copy of the notification; and makes the repository, the collection and any other U.S. Government-owned personal property available for periodic inspection by the:
 - federal Agency Official;
 - When the collection is from Indian lands, the Indian landowner and the Tribal Official of the Indian tribe that has jurisdiction over the lands; and
 - When the collection contains religious remains, the Indian tribal elders, religious leaders, and other officials representing the Indian tribe or other group for which the remains have religious or sacred importance.

The facility shall have qualified federal agency professionals:

1. Investigate reports of a lost, stolen, deteriorated, damaged, or destroyed collection (or a part thereof) or any other U.S. Government-owned personal property; and
2. Periodically inspect the repository, the collection and any other U.S. Government-owned personal property for the purposes of:
 - Determining whether the repository is in compliance with the minimum standards set forth in 36 CFR 79.9 of this part; and

- Evaluating the performance of the repository in providing curatorial services under any contract, memorandum, agreement, or other appropriate written instrument.

The frequency and methods for conducting and documenting inspections and inventories shall be mutually agreed upon, in writing, by the facility and the repository Official, and be appropriate to the nature and content of the collection:

3. Collections from Indian lands shall be inspected and inventoried in accordance with such terms and conditions as may be requested by the Indian landowner and the Indian tribe having jurisdiction over the lands.
4. Religious remains in collections from public lands shall be inspected and inventoried in accordance with such terms and conditions as may have been developed pursuant to the regulations in 36 CFR 79, 36 CFR 296, 18 CFR 1312, and 32 CFR 229.
5. Material remains and records of a fragile or perishable nature should be inspected for deterioration and damage on a more frequent basis than lithic or more stable remains or records.
6. Because frequent handling will accelerate the breakdown of fragile materials, material remains and records should be viewed but handled as little as possible during inspections and inventories.
7. Material remains and records of a valuable nature should be inventoried on a more frequent basis than other less valuable remains or records.
8. Persons such as those listed in 36 CFR 79.6(c) of this part who have expertise in the management and preservation of similar collections should be able to provide advice to the federal Agency Official concerning the appropriate frequency and methods for conducting inspections and inventories of a particular collection.

Consistent with the Single Audit Act (31 U.S.C. 75), when two or more federal agencies deposit collections in the same repository, the federal Agency Officials should enter into an interagency agreement for the purposes of:

1. Requesting the Repository Official to coordinate the inspections and inventories, stipulated in paragraph (b) of this section, for each of the collections;
 2. Designating one or more qualified federal agency professionals to:
 - Conduct inspections, stipulated in 36 CFR 79.11, on behalf of the other agencies; and
 - Following each inspection, prepare and distribute to each federal Agency Official a written report of findings, including an evaluation of performance and recommendations to correct any deficiencies and resolve any problems that were identified. When the collection is from Indian lands, the Indian landowner and the Tribal Official of the Indian tribe that has jurisdiction over the lands shall also be provided with a copy of the report; and
- (1) Ensuring consistency in the conduct of inspections and inventories conducted pursuant to this section.

5.6 PROTECTION PROCEDURES

Both the NHPA and the ARPA require protection of cultural resources on federal lands from such factors as natural forces, authorized acts, and illegal acts. Routine site controls and security provide a sufficient level of protection for cultural resources at Mound. Additionally, impacts and adverse impacts and the processes for defining the impacts and for mitigating these impacts as they affect the original structures are identified in the MOA. As required by the MOA the original 17 structures will be subject to documentation standards, as the means of minimizing adverse impacts. The requirements for documentation are included in Section 3.1.3.

5.6.1 Natural Forces

The Mound site has a routine maintenance program for the maintenance of exterior grounds, utility systems, and building structures in order to maintain their integrity, pending their final disposition under the Mound Exit Plan. Any building related work caused by natural forces would be driven by safety concerns or the fact that the building has been recognized as having value under the Mound Exit Plan or to the City. MOA requirements primarily consist of documentation; no additional protective measures from natural forces are planned.

5.6.1.1 Monitoring

This section discusses any program that may be in place to monitor cultural resources against the effects of natural forces, including monitoring strategies, frequency of monitoring, and staff conducting the monitoring. Exit Project activities will significantly affect most of Mound's historic structures. The documentation standards in Section 3.1.3 are the means by which Mound will mitigate potential adverse impacts to these structures.

5.6.1.2 Consultation

The purpose of this section is to discuss programs in place for the consultation with the OHPO, Native American Groups, or other interested parties to discuss the effects of natural forces on cultural resources. A consultation program is not warranted for the Mound.

5.6.1.3 Restoration and Repair

This section describes the procedures used to select and implement appropriate restoration and repair measures for the effect of natural forces on cultural resources. Beyond those actions that are warranted as maintenance, there is no formal program in place for restoration and repair of impacts resulting from natural forces except to address safety concerns.

5.6.2 Authorized Actions

The purpose of this section is to address project screening, monitoring, consultation, and restoration and repair procedures for the effects of authorized actions on cultural resources at the facility or program area. The BWXT of Ohio cultural resources representative is responsible for reviewing activities to determine if those activities will impact cultural resources.

5.6.2.1 Project Screening and Tracking

This section is to be used to describe the procedures to be used to screen and track authorized projects that could produce unintended effects on cultural resources at the facility or program area. It should specify how staff cultural resource professionals will be notified of these projects, and identify the staff position assigned responsibility for the project screening and tracking procedures.

The current mission at Mound is to clean the site up and transition reusable or economically valuable resources (i.e., buildings, structures, processes, and equipment) to the city of Miamisburg. As such, buildings associated with the original mission may be either decontaminated or demolished as discussed in Section 3.1.3. The Cultural Resources Coordinator will review all projects that may result in disturbance of the original mission structures or may result in a physical disturbance or excavation of other Mound site areas, structures, or buildings. Reviews will be documented and logged.

5.6.2.2 Monitoring

See Section 5.6.1.1.

5.6.2.3 Consultation

See Section 5.6.1.2.

5.6.2.4 Restoration and Repair

See Section 5.6.1.3

5.6.3 Illegal Acts

This section describes detection, investigation, prosecution, consultation, restoration, repair, and prevention procedures for illegal acts affecting cultural resources at the facility.

5.6.3.1 Detection

The protection provided to DOE assets at the Mound Site consists of a series of graded controls. Site-wide plant protection operations include entry control systems, barriers, intrusion detection systems, and protective force personnel who conduct patrols, control access, and respond to all areas of the plant.

5.6.3.2 Investigation

The BWXT of Ohio security organization conducts initial inquiries for property loss, property damage, or similar impacted property situations. Depending on the nature of the illegal act against DOE property and the value of property loss or damage, DOE Security, Inspector General (IG), FBI, or local law enforcement agency (LLEA) personnel may assist or assume control of the investigation.

Cultural resource damage assessment will be coordinated by the BWXT of Ohio Loss Prevention Coordinator. Input to damage assessments will be provided by the Cultural Resources Coordinator, engineering personnel, real property specialist, and other subject matter expert personnel, as appropriate.

The Loss Prevention Coordinator is required to submit a case report to the DOE for each property loss occurrence exceeding \$500. A Monthly Property Loss Report that summarizes all property loss activity is also submitted to the DOE.

5.6.3.3 Prosecution

Prosecution of cases involving illegal acts affecting cultural resources at Mound shall be handled by Mound's Legal Counsel.

5.6.3.4 Consultation

The facility and the OHPO have developed an MOA in consultation with the ACHP. The MOA addresses the processes and procedures for mitigating impacts on the original 17 structures. The terms of the MOA are discussed in Section 3.1.3.

5.6.3.5 Restoration and Repair

See Section 5.6.1.3.

5.6.3.6 Prevention

By virtue of its operation as a DOE defense related operation, the Mound site is protected by controlled access entry points, through which only authorized persons are allowed to pass. Although these controls

are not specifically directed towards historic structures, they protect access to such structures by unauthorized persons.

5.7 TREATY RIGHTS PROCEDURES

As noted in Section 3.2, no significant Native American or other archaeologically significant resources have been discovered at Mound. As such, Mound has not entered into any treaties that would be covered under this section. In the event that covered discoveries are made, the procedures outlined below would be followed.

5.7.1 Technical Actions

This section is intended to describe the administrative procedures to be used to ensure that the following technical actions have taken place:

1. detailed search has been completed to identify the Native American tribes with which the facility managers will consult;
2. a thorough treaty search has been completed, which should include executive orders and agreements (formal and operational) between the Indian nations and the federal government;
3. research to identify Native American tribes and treaties is carried out by qualified staff who are knowledgeable concerning Native American custom and culture, as well as federal Indian law;
4. research data and results are shared with tribal officials and, when available, tribal archival information receives consideration; and
5. current operation and new construction planning information for facilities and programs is shared to the maximum extent feasible with Indian nations impacted and at the earliest point in time possible.

5.7.2 Regulatory Compliance

The purpose of this section is to describe the administrative procedures to be used to achieve regulatory compliance and ensure that:

1. conditions specified in existing treaties are being met;
2. consultation regarding planned projects takes place with appropriate tribal officials, traditional and contemporary, elected and appointed;
3. consultation includes consideration for the need to maintain confidentiality of certain types of information, particularly regarding religious activities; and,
4. protection of sites, objects, resources, and geographic areas, and information regarding these locations and/or objects, will be provided to Native Americans. Identify the staff position assigned responsibility for these administrative procedures.

5.7.3 Administrative Procedures

This section is intended to describe the administrative procedures that have been developed to ensure that:

1. the federal trust responsibility arising from the treaty relationships is carried out;
2. Native American religious practices remain viable through access to religious and ceremonial sites and protected from alteration and disturbance; and
3. Applicable federal law regulating sacred objects, funerary items, and human remains is enforced. Identify the staff position assigned responsibility for these administrative procedures

5.8 CULTURAL RESOURCES MANAGEMENT ADMINISTRATION

The DOE guidelines for a CRMP state that implementation of cultural resources management methods and procedures requires administrative actions in at least seven areas:

- staffing and contracting,
- training,
- permitting,
- cultural resources management facilities,
- curation,
- quality assurance, and
- consultation on administration.

5.8.1 Staffing and Contracting

The purpose of this section is to define how cultural resource experts will be incorporated into the environmental management structure that supports operational activities at Mound.

At the time of the generation of the CRMP, BWXT of Ohio has one "full-time" staff member who supports the development of cultural resource policies and procedures, and conducts cultural studies. DOE MEMP has also identified a staff member to support cultural resource management.

Additional support has been secured via subcontract with an outside firm. The purpose of this contract is to utilize Westerly's experience and expertise in finalizing the HABS building histories for Buildings B, E, I, HH, M, R, and T, and the HABS II site overview.

The CRMP requires that work packages and other activities at the site be reviewed by these staff members, in order to determine if there is any potential impact on known cultural resources. Site activities will also be monitored to evaluate any possible new discoveries of cultural resources. The CRMP outlines procedures required for compliance with the MOA and with the regulatory requirements for cultural resources.

5.8.2 Training

Site workers are educated via a series of informational releases and by a series of fact sheets that explain the cultural resources management program. Thus far, there has been an informative article in the Mound News. The Mound News is a project-wide publication, directed at educating and informing site-workers.

The Cultural Resources Coordinator is developing a series of fact sheets related to the cultural resources program. Fact sheets describing the program and other related activities and reports have been drafted for the following topics:

- "Historic Preservation at the Mound Site"
- "The Mound Site as an ASM International National Historic Landmark"
- "Mound Site Archaeological Studies"
- "Cultural Resources Management at the Mound Site"
- "The Process at Mound That will be Implemented in the Event any Artifacts are Discovered at the Mound Site"
- "Mound Site Process History Summary"

An intranet and an internet site, both, are being developed. These sites are intended to educate and inform the site worker and the general-public of the cultural resources program.

3ESC maintains an informative bulletin board outside OSE 245A that includes articles and points of interest pertaining to Mound history and cultural resources.

5.8.3 Permitting

This CRMP includes processes for involving the Cultural Resources Coordinator in cleanup and site transitioning activities, in order to assess those activities to determine if any cultural resources will be impacted.

At the time of the compilation of this CRMP, there have been no archaeologically significant resources discovered on the Mound plant site. As such, there is no permitting program or no permitting procedures in place for these types of resources. Only in the event archaeologically significant resources are discovered will the permitting procedures in the Antiquities Act be implemented.

5.8.4 Cultural Resources Management Facilities

Records related to the cultural resource management program at Mound, include:

1. Historic information related to plant processes and programs, plant construction, plant development;
2. Information related to the development of the HABS reports, and the referenced information;
3. Information related to the development of the OHPO reports, and the referenced information;
4. Cultural resource determinations; and
5. Cultural resources related correspondence.

These materials are cataloged in a database maintained by the Cultural Resources Coordinator. This collection of materials is maintained in the office of the Cultural Resources Coordinator in OSE 245A. The volume of material is currently managed in accordance with the DOE's record management requirements, and maintained as part of the records inventory.

Eventually, copies of all of this material will be incorporated into an archive being developed by the Mound Museum Association (MMA). The MMA is a not-for-profit corporation that has a dual goal, including the development of an archive for storage of Mound related printed materials, and a physical collection of Mound artifacts. Under its filing as a corporation, the MMA has named the Miamisburg Historical Society as the recipient of its collections in the event the Association is ever dissolved. As such, the MMA collections will then pass to the MHS. The Cultural Resources Coordinator is an active member of the MMA, and a member of the Board of Trustees of the MMA.

Mound also utilizes the off-site Mound CERCLA Public Reading Room, and the archaeological archives at Wright State University.

5.8.5 Curation

Artifacts collected during Mound archaeological studies are curated in the Laboratory of Anthropology at Wright State University, in Dayton, Ohio.

Project records, reports, and other information associated with cultural resource activities are maintained by the BWXT of Ohio's Cultural Resource Coordinator, in OSE Building, Room 245A.

5.8.6 Quality Assurance

The purpose of this section is to describe an independent quality assurance system to be established to provide oversight on cultural resources management administrative task areas. Under the CRMP guidelines, technical reviewers should have no direct or indirect economic, administrative, or regulatory relationships with the cultural resource staff who are responsible for any of the separate task areas.

Mound has an independent audit group that will periodically be commissioned, in order to evaluate the ECS groups' performance with respect to the requirements in CRMP.

5.8.7 Consultation on Administration

The facility has developed an MOA in consultation with the OHPO and ACHP. The MOA addresses the requirements for the administration of Mound's historic structures (i.e., the original structures built in 1948 that supported the polonium mission). Documentation prepared under the MOA will be submitted to the OHPO and NPS.

5.8.8 Other Administrative Activities

No additional activities are planned.

MOUND FACILITY CULTURAL RESOURCE MANAGEMENT PLAN

SECTION 6

PLAN ATTACHMENTS

SECTION 6 PLAN ATTACHMENTS

6.0 Plan Attachments

This section includes attachments referenced in the preceding sections, as follows:

Attachment I—Mound drawing FSE920931, Mound site topographic map.

Attachment II—Mound drawing FSE920921, Land-use and land ownership around the Mound site.

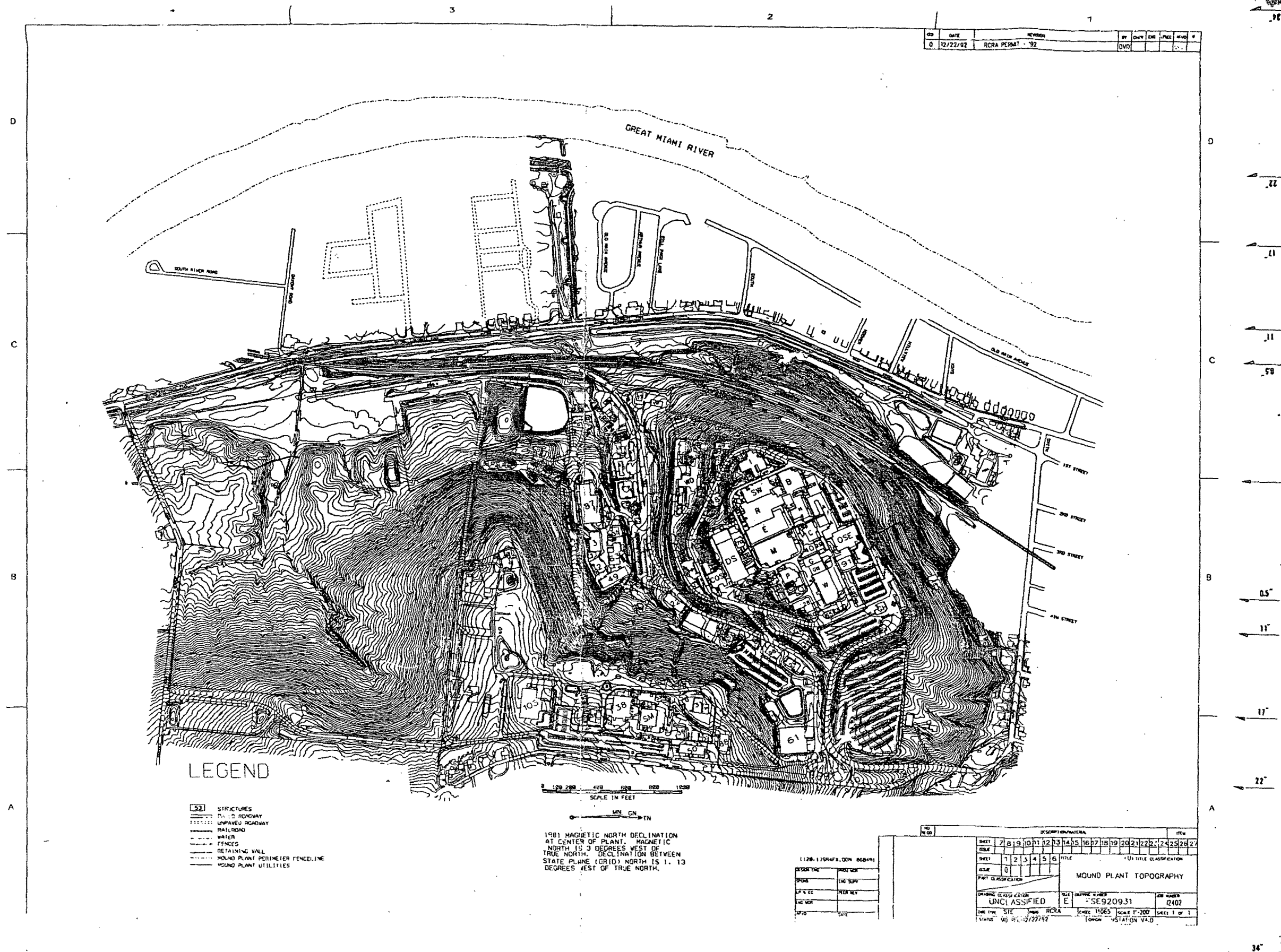
Attachment III—Mound site drawing, 1991, depicting 17 original structures.

Attachment IV—Memorandum of Agreement between the DOE and ACHP

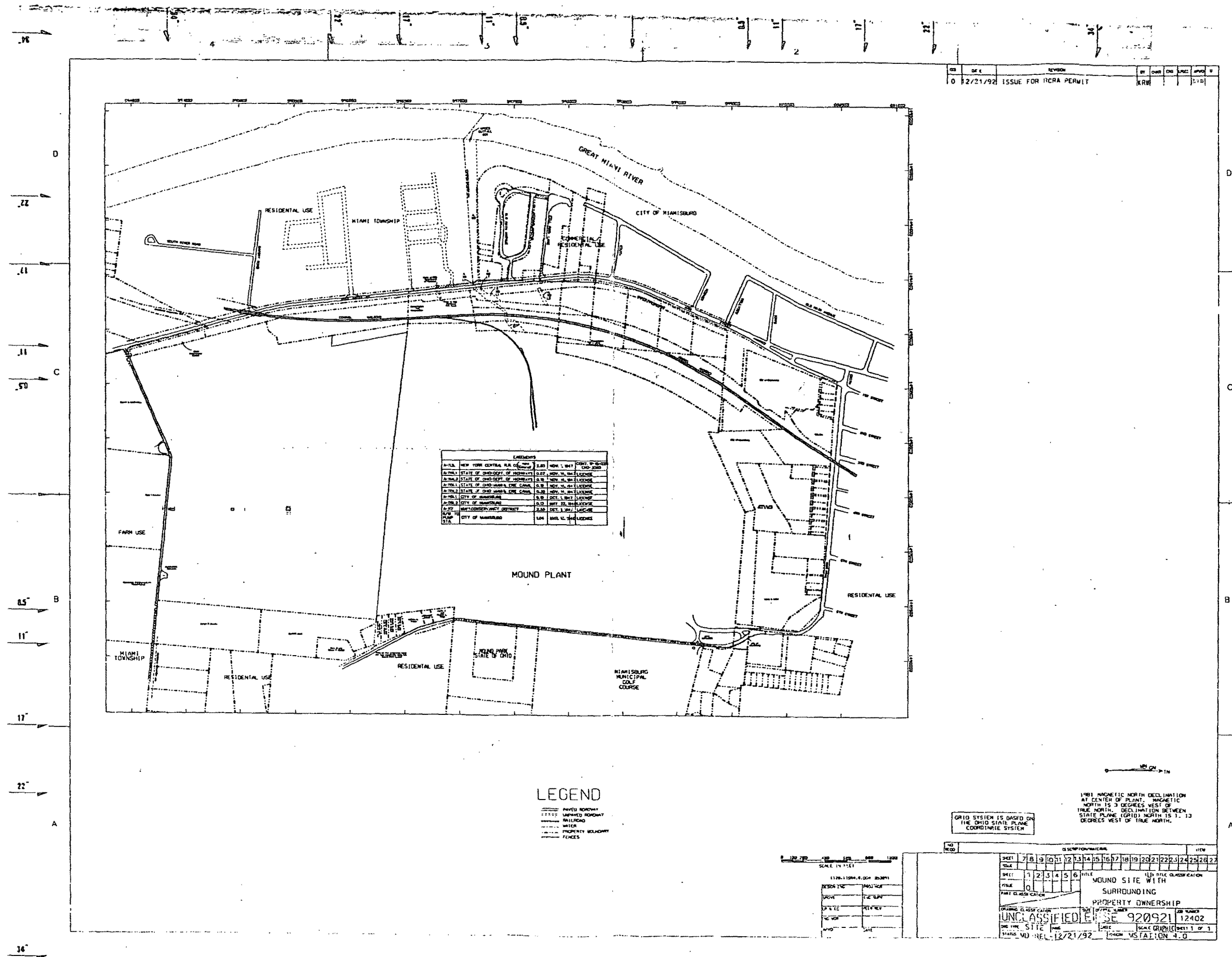
Attachment V—Sources of Additional Information

Attachment VI—Applicability Matrix for CRMP Section 5 Components

ATTACHMENT I
MOUND DRAWING FSE920931, MOUND SITE
TOPOGRAPHIC MAP.



ATTACHMENT II
MOUND DRAWING FSE920921, LAND USE
AND LAND OWNERSHIP AROUND THE
MOUND SITE.



ATTACHMENT III
MOUND SITE DRAWING, 1991, DEPICTING
17 ORIGINAL STRUCTURES.

ATTACHMENT IV
MEMORANDUM OF AGREEMENT
BETWEEN THE DOE AND ACHP

Advisory
Council On
Historic
Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

OCT 18 2000

Mr. Richard B. Provencher
Director
Ohio Field Office
Miamisburg Environmental Management Office
P.O. Box 66
Miamisburg, OH 45343-0066

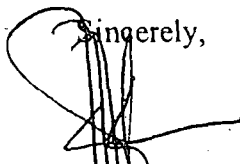
REF: Mound Plant Disposition of 17 historic buildings

Dear Mr. Provencher

Enclosed is the executed Memorandum of Agreement for the referenced project. By carrying out the terms of the Agreement, you will have fulfilled your responsibilities under Section 106 of the National Historic Preservation Act and the Council's regulations.

We appreciate your cooperation in reaching this Agreement. If you have any questions, please call Dr. Tom McCulloch at 202-606-8554.

Sincerely,



Don L. Klima
Director
Office of Planning and Review

Enclosure

MAILED 2000
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MEMORANDUM OF AGREEMENT
BETWEEN
THE UNITED STATES DEPARTMENT OF ENERGY (DOE)
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION (ACHP)
REGARDING THE DISPOSITION OF THE MOUND PLANT

WHEREAS, the Department of Energy (DOE) is planning to phase out all weapons production and surveillance operations at the Mound Plant (the plant); and

WHEREAS, the DOE is currently engaged in an Environmental Restoration Program at the plant, including but not limited to, decontamination and/or demolition of structures as necessary to protect human health and the environment; and

WHEREAS, the DOE, in consultation with the Ohio Historic Preservation Office(OHPO), and the Advisory Council on Historic Preservation(ACHP), has determined that the plant is eligible for the National Register of Historic Places and that the original 17 buildings are contributing resources of the property due to their association with the early development of nuclear weapons and nuclear power; and

WHEREAS, the DOE, in consultation with the OHPO and the ACHP, has determined that the decontamination and/or demolition activities will have an adverse effect on the plant, in accordance with the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR 800);

WHEREAS, consulting parties DOE, OHPO and the Miamisburg Mound Community Improvement Corporation could not agree to terms for T building mitigation resulting in termination of consultation.

NOW, THEREFORE, the DOE and ACHP agree that DOE's decision to proceed with the decontamination and decommissioning of this property shall be implemented in accordance with the following stipulations in order to take into account the effects of the sale on historic properties; the DOE and ACHP agree that implementation of the following stipulations constitutes mitigation of the adverse effects.

STIPULATIONS:

DOE will ensure that the following measures are implemented.

I. DOCUMENTATION

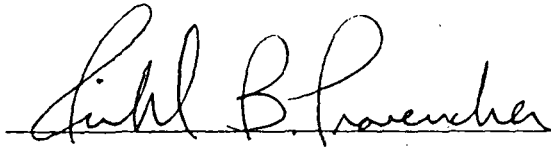
V. Termination

Either DOE or ACHP may propose to the other party that this Memorandum of Agreement be terminated. The party proposing termination of this agreement shall so notify the other party, explaining the reasons for termination, and affording at least 30 days to consult and seek alternatives to termination.

VI. Monitoring

If the terms of this MOA have not been implemented by September 30, 2006, this MOA shall be considered null and void. In such event, the DOE shall notify the parties to this MOA, and if it chooses to continue with the federal property transfer, decontamination, or demolition, shall re-initiate review of the undertaking, in accordance with 36 CFR Part 800.

The execution of this Memorandum of Agreement and carrying out its terms evidence that the DOE has afforded the Advisory Council on Historic Preservation an opportunity to comment on the undertaking and has taken into account the effects of the undertaking on historic properties.

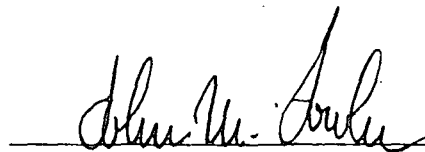


9/18/00

Richard B. Provencher, Director
Miamisburg Environmental Management Project

Date

Accepted by:



John M. Fowler, Executive Director
Advisory Council on Historic Preservation

10/17/00

Date

ATTACHMENT V

SOURCES OF ADDITIONAL INFORMATION

ATTACHMENT V SOURCES OF ADDITIONAL INFORMATION

Numerous documents have been generated in support of Mounds Cultural Resources Management Program. These documents include the following two categories or types of documents:

PROBLEMATIC-TYPE DOCUMENTS

Under the Cultural Resources Management Program, there have been a number of determinations of the potential for a project or activity to impact a cultural resource prepared by the Cultural Resources Coordinator. As of January 2000, there are approximately 80 of these types of determinations in draft form or that have been finalized. These memorandums are maintained on file in room OSE 245A.

Additionally, there are internal memorandums that have been generated to cover artifact discoveries made on-site since the inception of the cultural resources program. As of July 1999, there are two of these types of memorandums covering seven artifacts. None of the artifacts discovered has been determined to be historically significant.

PROGRAMMATIC-TYPE DOCUMENTS

The following documents include documents referenced in the CRMP, as well as additional documents related to Mound's cultural resource management program.

Beamer 1991	<i>Literature Review Update and Archaeological Survey of the EG&G Mound Facility and Adjacent Areas, City of Miamisburg Miami Township, Montgomery County, Ohio, April 1991.</i>
BWO 1998	<i>Determination of the Historical/Archeological Significance of the Mound Facility, June 1998.</i>
BWO 1998	<i>DOE Mound Facility GH Building General Support Function Documentation Package, December 1998.</i>
BWO 1999	<i>DOE Mound Facility G Building General Support Function Documentation Package, January 1999.</i>
BWO 1999	<i>DOE Mound Facility P Building General Support Function Documentation Package, January 1999.</i>
BWO 1999	<i>DOE Mound Facility PH Building General Support Function Documentation Package, January 1999.</i>
BWO 1999	<i>DOE Mound Facility W Building General Support Function Documentation Package, January 1999.</i>
BWO 1999	<i>DOE Mound Facility A Building General Support Function Documentation Package, February 1999.</i>

BWXT of Ohio (In Draft)	<i>DOE Mound Facility WD Building General Support Function Documentation Package, (In draft).</i>
BWO 1999	Environmental Practices Manual, Section 28, March 1999.
BWXT of Ohio	<i>Historic American Building Survey, Volume 1—Mound Laboratory Complex, Site History (In Draft)</i>
BWXT of Ohio (In Draft)	<i>Historic American Building Survey, Volume 2—Biological Building (B Building)</i>
BWXT of Ohio (In Draft)	<i>Historic American Building Survey, Volume 3—Electronics Building (E Building)</i>
BWXT of Ohio (In Draft)	<i>Historic American Building Survey, Volume 5—Isolated Building (I Building)</i>
BWXT of Ohio (In Draft)	<i>Historic American Building Survey, Volume 6—Maintenance I Building (M Building)</i>
OHPO 1988	Letter from W. Ray Luce, OHPO to Dennis Lammlein, EG&G, response to "An Archaeological Survey of Portions of the Mound Facility, Montgomery County, Ohio", December 1987.
OHPO 1991	Letter from Judith Kitchen, OHPO to Mark Gilliat, EG&G, response to "Literature Review Update and Archaeological Survey of the EG&G Mound Facility and Adjacent Areas, City of Miamisburg Miami Township, Montgomery County, Ohio", April 1991.
OHPO 1998	Letter from Mark Epstein, OHPO to Nat Brown, DOE-MEMP responding to <i>Determination of the Historical/Archeological Significance of the Mound Facility</i> , June 1998.
OHPO 1999	Letter from Sandra Davies, OHPO to Paul Lucas, DOE-MEMP in response to draft submittal of <i>DOE Mound Facility GH Building General Support Function Documentation Package</i> in December 1998, January 1999.
OHPO 1999	Letter from Sandra Davies, OHPO to Paul Lucas, DOE-MEMP in response to questions concerning the MOA definition of character defining features, T Building, and other work, March 25 1999.
OHPO 1999	Letter from Mark Epstein, OHPO to Paul Lucas, DOE-MEMP in response to an April 8, 1999 letter concerning scheduled T Building work and whether or not that work will impact the structure, April 13 1999.
Riordan 1987	An Archeological Survey of Portions of the Mound Facility, Montgomery County, Ohio, December 1987.

ATTACHMENT VI APPLICABILITY MATRIX FOR CRMP SECTION 5 COMPONENTS

ATTACHMENT VI--APPLICABILITY MATRIX FOR CRMP SECTION 5 COMPONENTS

CRMP SECTION	CRMP SECTION CONTENT	T BUILDING	ALL OTHER ORIGINAL STRUCTURES	SITE PROJECTS AND ACTIVITIES
5.1	Compliance procedures for National Historic Preservation Act mandates (NHPA)			
5.1.1	Compliance procedures to be implemented before conducting activities that may impact a historic property	Yes, Applicable	No	Yes, Applicable
5.1.2	Procedures for the identification of cultural resources which may be affected	Yes, Applicable	Yes, Applicable	Yes, Applicable
5.1.3	Procedures for consultation when No cultural resource are identified	Yes, Applicable	Yes, Applicable	Yes, Applicable
5.1.4	Procedures for the evaluation of cultural resources identified	Yes, Applicable	Yes, Applicable	Yes, Applicable
5.1.5	Procedures for assessing and avoiding or reducing effects on cultural resources	No	No	No--unless a cultural resource is discovered
5.1.6	Procedures for unanticipated discoveries of cultural resources	No	No	No--unless a cultural resource is discovered
5.1.7	Procedures for Nomination to the National Register of Historic Places	No--mitigative steps established by the MOA	No--mitigative steps established by the MOA	No--unless a cultural resource is discovered and to be listed
5.1.8	Procedures for designation of National Historic Landmarks	No	No	No--unless a discovery is to become a national landmark
5.2	Procedural requirements for compliance with the Archeological Resources Protection Act (ARPA)	No	No	No--unless significant archeological resources are discovered
5.3	Procedural requirements for compliance with the American Indian Religious Freedom Act (AIRFA)	No	No	No--unless discoveries of areas having religious or cultural significance are made
5.4	Procedures for compliance with the Native American Graves Protection and Repatriation Act (NAGPRA)	No	No	No--unless Native American culturally significant items are discovered
5.5	Procedures for the management and curation of archeological collections (36 CFR Part 79)	No	No	No--unless archeological resources are discovered
5.6	Procedures for the protection of NHPA and ARPA related cultural resources	No--addressed by MOA	No--addressed by MOA	No--unless additional NHPA and ARPA resources are discovered and protection is mandated
5.7	Procedures for treaty rights	No	No	No--unless archeological discoveries are made resulting in treaties with Native American groups
5.8	Procedures for cultural resources management administration	Yes, Applicable	Yes, Applicable	Yes, Applicable