DEPARTMENT OF THE ARMY

IOWA ARMY AMMUNITION PLANT, IOWA INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN

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DRAFT INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN

This signature page confirms that the following authorized personnel have reviewed this Integrated Cultural Resources Management Plan and concur with the recommended procedures as presented herein.

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EXECUTIVE SUMMARY

This Integrated Cultural Resources Management Plan (ICRMP) has been prepared in compliance with Army Regulation (AR) 200-1 and Department of Defense (DOD) Instruction 4715.16. It is a five-year plan for the integrated management of cultural resources at the Iowa Army Ammunition Plan (IAAAP) for fiscal years (FY) 2013 through 2018. This plan is not a decision document, but it provides the Commander and those responsible for implementing the Commander's decisions with the information needed to make appropriate decisions about the management of the cultural resources at IAAAP. The IAAAP will implement this plan to the extent possible utilizing available resources.

This updated ICRMP summarizes changes undergone at IAAAP since the last ICRMP was developed in 2002 and contains a series of policies and standard operating procedures (SOP) that will ensure compliance with appropriate laws and implementing regulations. It develops a five-year plan that: (1) identifies planned undertakings and possible impacts requiring cultural resource consultation; (2) identifies potential impacts to cultural resources; and (3) provides a projected schedule for implementation. The ICRMP also provides SOPs that may be utilized for the day-to-day management of installation requirements, identifies various public consultation requirements and how to incorporate them into installation management activities, and provides management goals that would benefit the installation's management of its cultural resource responsibilities.

The current AR 200-1 defines a number of responsibilities and associated actions that are mandated for the Commander at IAAAP. These include the following:

- Establishing an installation cultural resources program;
- Designating an installation Cultural Resources Manager (CRM);
- Establishing a government-to-government relationship with appropriate Native American Indian Tribal groups;
- Establishing an installation coordination process for review and planning of projects;
- Preparing a Section 106 Programmatic Agreement or a Cooperative Agreement as appropriate;
- Ensuring integration of cultural resources management with mission planning, natural resources, and other activities;
- Establishing funding priorities and programming funds for cultural resources compliance; and
- Serving as the responsible official for the installation.

Implementation of this ICRMP will help ensure the consideration of all applicable laws, regulations, Executive Orders, and other directives in properly managing the IAAAP cultural resource management responsibilities. This ICRMP considers the responsibilities that reflect the requirements of AR 200-1, but it also identifies several management goals. These goals should not be considered mandates for completion but rather are suggested as a best management practice. IAAAP should consider the following:

- Develop a public involvement plan for actions potentially affecting cultural resources;

- Complete archeological survey as needed on an on-going basis prior to any ground disturbing undertaking;

- Test the 228 unevaluated National Register of Historic Places (NRHP) archeological sites as the sites are proposed for actions that could potentially impact them; and

- Complete the architectural survey and National Register evaluations, particularly for buildings proposed for undertakings within the next five years.

- Complete inventory forms for extant historic cemeteries. The Iowa SHPO has requested that IAAAP record all of the extant historic-era cemeteries on Iowa Site Inventory Forms and file them with the SHPO. Consideration should also be given to also recording the cemeteries as archeological sites with the Office of the State Archeologist.

ACKNOWLEDGMENTS

This document was prepared by New South Associates, Inc., for Tetra Tech Inc. (Tetra Tech) and the IAAAP through a delivery order with the U.S. Corps of Engineers (USACE), Mobile District. The IAAAP point of contact for this report is Mr. Joseph Haffner, Natural and Cultural Resources Manager at IAAAP. Local Army and American Ordnance LLC staff members were vital to the completion of this report. Ms. Kristin Shields is the Tetra Tech project manager. Dr. J. W. Joseph, RPA of New South Associates, provided technical oversight for the plan revision.

This report was prepared by updating the ICRMP completed by Earth Tech for fiscal years (FY) 1997 to 2002.

The Technical Manager for the Mobile District was Glenn Harbin. The following persons generously contributed their time and information during the preparation of the FY 2013 to 2018 document: Kristin Shields and Jennifer Jarvis of Tetra Tech; Jeff Muehlmann of Army Materiel Command and Joseph Haffner and Leon Baxter of the IAAAP.

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LIST OF ACRONYMS

AAP	Army Alternate Procedures
ACHP	Advisory Council on Historic Preservation
AEC	Army Environmental Command
AIRFA	American Indian Religious Freedom Act
APE	Area of Potential Effect
AR	Army Regulation
ARPA	Archeological Resources Protection Act
BRAC	Base Realignment and Closure
CA	Comprehensive Agreement
CFR	Code of Federal Regulations
COR	Contracting Officer's Representative
CRM	Cultural Resource Manager
CRMP	Cultural Resources Management Plan
DA	Department of the Army
DARCOM	Development and Readiness Command
DHAS	Historical/Archeological Survey
DOD	Department of Defense
EA	Environmental Assessment
ECM	Earth-covered magazine
EIS	Environmental Impact Statement
EO	Executive Order
EPR	Environmental Programs Requirements
ER	Engineer Regulation
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
FY	Fiscal year
GOCO	Government-owned, contract-operated
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HPC	Historic Properties Component
HQDA	Headquarters, Department of the Army
IAAAP	Iowa Army Ammunition Plant
ICRMP	Integrated Cultural Resources Management Plan
ID/IQ	Indefinite Delivery/Indefinite Quantity
IMCOM	Installation Management Command
INCRMP	Integrated Natural and Cultural Resources Management Plan
JMC	Joint Munitions Command
JOC	Job Order Contract
JOR	Job Order Request

LIST OF ACRONYMS (Continued)

LAP	Load, Assemble, and Pack
LEA	Layaway Economic Analysis
MACOM	Major Command
MOA	Memorandum of Agreement
MSL	Mean Sea Level
NAGPRA	Native American Graves Protection and Repatriation Act
NCSHPO	National Council of State Historic Preservation Offices
NEPA	National Environmental Policy Act
NEV	Not Yet Evaluated
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
NRM	Natural Resources Manager
PA	Programmatic Agreement
PBS	Production Base Support
PL	Public Law
PMOA	Programmatic Memorandum of Agreement
REC	Record of Environmental Consideration
ROA	Report of Availability
RPAO	Real Property Accountable Officer
RPMA	Real Property Management Account
SHPO	State Historic Preservation Officer
SOP	Standard Operating Procedure
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Officer
TMP	Tract Management Plans
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDI	U.S. Department of the Interior
USMA	United States Military Academy
UXO	Unexploded Ordnance

1.0 INTRODUCTION

This Integrated Cultural Resources Management Plan (ICRMP) is required by United States Army (Army) Regulation (AR) 200-1. It is a five-year plan for the integrated management of Iowa Army Ammunition Plant (IAAAP) cultural resources to ensure compliance with Federal laws and Army regulations. The ICRMP is not a decision document, but it provides the Commander and those responsible for implementing actions with the information needed to make appropriate decisions about the management of the cultural resources at IAAAP.

The ICRMP is designed to assist IAAAP in identifying procedures required to comply with appropriate Federal laws and other applicable regulations. Among the laws with special consequence to IAAAP are the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA) and the Archeological Resources Protection Act (ARPA). While these laws are separate and distinct legal mandates, they each have penalties and procedural elements associated with them that can halt or delay projects. For example, failure to take into account the effects of an undertaking as defined by the NHPA can result in formal notification from the Advisory Council on Historic Preservation (ACHP), which can be used by litigants in a court of law against the Army. Project delays and penalties could also result from violations associated with NAGPRA and ARPA. These laws and other regulations are reviewed in Section 1.2 below.

Under AR 200-1, the Commander is responsible for compliance with Federal cultural resource laws. AR 200-1 directs, as appropriate, that Commanders should do the following:

- Establish an installation cultural resources management program by means of an ICRMP;
- Designate a Cultural Resource Manager (CRM) to coordinate the installation's cultural resource management program;
- Establish government-to-government relationship with Federally-recognized Native American tribes, as needed;
- Establish a process that involves the CRM in the early stages of the planning of projects;
- Ensure that cultural resources management is coordinated with installation activities such as mission planning, environmental impact analysis, natural resources and endangered species management planning and programming, including Integrated Natural Resources Management Plans;
- Establish funding priorities and program funds for cultural resource compliance as part of the Environmental Program Requirements report;
- Conduct a comprehensive evaluation of the cultural resources management program as part of the installation's environmental compliance assessment required by AR 200-1;
- Develop ICRMPs, Programmatic Agreements (PA), Memoranda of Agreement (MOA), NAGPRA comprehensive agreements and Plans of Action, and National Register of Historic Places (NRHP) nominations and coordinate such documents with Major Command (MACOM) and the Headquarters of the Department of Army (HQDA);

- Serve as the "Agency Official" as defined in 36 CFR 800 with responsibility for installation compliance with the NHPA;

- Serve as the "Federal Agency Official" as defined in 43 CFR 10 with responsibility for installation compliance with NAGPRA;

- Serve as the "Federal Land Manager" as defined in 32 CFR 229 with responsibility for installation compliance with ARPA;

- Serve as the "Federal Agency Official" as defined in 36 CFR 79 with management authority over archeological collections and associated records; and

- Sign NHPA PAs, MOAs, and NAGPRA Comprehensive Agreements (CAs) and Plans of Action after MACOM and HQDA comments have been addressed, and prepare National Register nominations for historic properties.

1.1 HOW TO USE THIS PLAN

This section reviews the structure of the ICRMP.

1.1.1 Organization

The Introduction (Part 1) includes important discussions regarding Army policy, goals of the plan, information on how to use the plan, and a brief review of preservation laws and regulations.

The Management Plan (Part 2) contains three components: (1) recommended management practices, including a public involvement plan; (2) a set of Standard Operating Procedures (SOP); and (3) a five-year management plan. Management practices include the designation of responsibilities when conducting an installation point of review for cultural resource compliance. They also identify the need to periodically review, monitor, and report compliance activities. The SOPs are designed to address routine matters of cultural resource compliance and are accompanied by schematic flow-charts. The five-year management plan identifies key objectives and specifies the resources and schedule needed to accomplish those objectives.

The Overview of IAAAP (Part 3) describes the installation mission, summarizes its history, reviews important characteristics of the natural environment, and identifies the range of undertakings at IAAAP that could affect cultural resources. IAAAP's current procedures for managing its cultural resources are also reviewed. In addition, the overview provides a narrative of current knowledge about the history and prehistory of IAAAP and the surrounding region. This part concludes with a summary of Native American groups known to have lived in the region.

The Resources (Part 4) summarizes the currently known cultural resources on IAAAP. In this section, cultural resources are organized by type. Archeological sites, traditional cultural properties (TCP), historic and architectural resources, and other resources are listed. The inventory concludes with the development of standards of significance by which archeological sites and historic buildings may be evaluated for eligibility and inclusion on the NRHP.

Finally, seven appendices are included: (A) glossary of key terms, (B) Native American points of contact, (C) archeological site data, (D) archeological site descriptions, (E) historic architectural data, (F) Cultural Resources Surveys, and (G) SHPO correspondence and concurrence letters.

1.1.2 Updating the ICRMP

This ICRMP is designed to be a "living" document that will be of contemporary and practical use to IAAAP planners. As the mission of IAAAP changes, the range and frequency of undertakings will also change. Similarly, as the objectives of the five-year plan are carried out, new information about IAAAP's cultural resources will be obtained. The three-ring binder format of this ICRMP allows the text of sections to be replaced as warranted when new information is available. The entire ICRMP should be reviewed at the end of a five-year cycle to determine if revisions or corrections are needed.

1.2 PRESERVATION LAWS AND REGULATIONS

This section contains brief summaries of the scope and intent of cultural resource laws and regulations that are of primary importance to the Iowa Army Ammunition Plant.

1.2.1 Federal Laws

This section summarizes applicable Federal laws, including the Antiquities Act, the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), the Archeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act (AIRFA), and the curation of Federally-owned and administrated archeological collections.

1.2.1.1 Antiquities Act

The Antiquities Act of 1906 (16 United States Code [USC] §431 et seq.) allows the President of the United States to set aside Federally-owned land as historic landmarks. It also allows the Federal government to acquire private land for historic preservation. The Act required that excavation of archeological sites on Federal land be conducted by qualified individuals under Federally issued permits, and it required that artifacts and objects recovered from these excavations be preserved permanently in museums.

The Act establishes penalties for any person who excavates, injures, or destroys any historic property or monument on Federal land without permission from the appropriate Federal department. Instructions for seizure of illegally acquired archeological objects are provided in implementing regulation 43 Code of Federal Regulations (CFR) Part 3. The procedure for issuing Federal permits has largely been given over to the permits issued under ARPA (see below).

1.2.1.2 National Historic Preservation Act

The NHPA of 1966, as amended through 2004 (Public Law [PL] 89-665 et seq.), is the cornerstone of Federal preservation law and is the most important piece of legislation for the IAAAP CRM. The NHPA sets forth a general policy of preserving historic properties by the Federal government for the benefit and education of the people of the United States. The NHPA directs the Secretary of the Interior to maintain a list of NRHP properties composed of districts, buildings, sites, structures, and objects deemed significant in American history, architecture, archeology, engineering, or culture. Although the NHPA did not create

the NRHP, it has expanded it. The Secretary is also directed to establish criteria for nominating properties and making determinations of eligibility.

The NHPA establishes a State Historic Preservation Office (SHPO) to identify and inventory historic properties within each state and to ensure that properties eligible for listing on the NRHP are taken into account during planning and development. The NHPA further establishes the ACHP as an independent Federal agency to advise the President, Congress, and Federal agencies on concerns of historic preservation.

Section 106 of the NHPA forms the basis for most of the cultural resources work conducted at IAAAP. Federal agencies are required to consider the effect of their undertakings on any properties eligible for inclusion on the NRHP. The ACHP must be given an opportunity to comment on the undertaking's effects on historic properties. Federal agencies must take into account the effects of an undertaking during the planning stage. They must also take into account the effects of the undertaking on eligible or listed properties and provide the ACHP an opportunity to comment. This process is detailed in implementing regulation 36 CFR Part 800. Section 106 does not require that an undertaking be stopped, but reasonable efforts must be made to minimize harm to eligible properties until the consultation process is completed. Amendments to Section 106 were adopted July 6, 2004 and reflect changes based on court decisions mainly concerning the following two areas: 1) the ACHP cannot require a Federal agency to change its determinations regarding whether its undertakings affected, or adversely affected, historic properties, and 2) Section 106 does not apply to undertakings that are merely subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency. The amendments reflect changes regarding consultation with the ACHP for a no adverse effect determination that is in dispute and the time allowed for the ACHP to provide comments to the agency after reviewing the objection.

Section 110 of the Act sets broad, affirmative responsibilities with respect to historic properties. Federal agencies are required to assume responsibility for the preservation of historic properties located on lands owned or controlled by the respective agency. Federal agencies are required to locate, inventory, and nominate all properties that appear to qualify for inclusion on the NRHP. Federal agencies are required to manage historic properties in compliance with Section 106 and must comply with NAGPRA. The articulation with NEPA process is clarified. The transfer or sale of surplus Federally owned properties must be pursuant to review and approval of a preservation plan. Costs of preservation may be included in the planning efforts of agency undertakings.

Section 111 of the Act requires that Federal agencies implement alternatives for historic properties, including their adaptive use when they are not needed for current or projected purposes. Agencies may also lease or exchange historic properties if these actions are compatible with preservation.

Section 112 of the Act requires that all research, preservation, and protection activities be conducted by persons meeting professional standards developed by the Secretary of the Interior, including both agency and contractor personnel.

Section 304 allows the head of a Federal agency to withhold from disclosure information concerning the location or character of historic resources. It should be noted, however, that a Freedom of Information Act (FOIA) filing can be used to obtain such information except where that information is exempt from FOIA disclosure under stipulations of ARPA.

1.2.1.3 National Environmental Policy Act

The NEPA of 1969 (42 USC §4321 et seq.) establishes a national policy that encourages harmony between humans and the environment. The policy states that the Federal government shall use all practicable means to preserve the productive harmony of the environment while fulfilling the social, economic, and other requirements of generations of Americans. Included in preserving the environment is the preservation of important historic and cultural aspects of national heritage.

The Act requires all Federal agencies to prepare a document, most commonly an Environmental Assessment (EA), which assesses the potential impacts of any proposed action on the environment. If impacts are judged potentially significant, an Environmental Impact Statement (EIS) must be prepared. An EIS identifies any unavoidable adverse environmental effects, as well as alternatives to the proposed action, prior to its implementation. The statement shall be prepared as early in the planning process as possible, and shall accompany the action's proposal through the agency review process.

The implementing regulations of NEPA (40 CFR Part 1500-1508) clarify that the Act in no way directs, replaces, or supersedes Section 106. Section 106 studies are conducted to determine the effect on historic properties for any Federal undertaking, while NEPA requires a full EIS only for some Federal undertakings. As outlined in 36 CFR Part 800.8, the Section 106 process can be coordinated with NEPA. The use of documentation prepared for a NEPA document to comply with Section 106 is permitted if the agency official has notified in advance the SHPO and the Council that it intends to do so following the standards outlined in 36 CFR Part 800.8.

1.2.1.4 Archeological Resource Protection Act

ARPA of 1979 (PL 96-97), as amended, establishes that archeological resources on public lands are part of the Nation's heritage and should be preserved for the benefit of the American people. Unauthorized excavation, removal, damage, or alteration of any archeological resource on public lands is prohibited. The law provides criminal and civil penalties for such violations. Permits may be obtained from the appropriate Federal agency by qualified individuals who want to excavate or remove archeological resources from Federally owned land. The proposed work must be undertaken strictly for the purpose of furthering archeological knowledge. Permits are not necessary for archeological work conducted in support of mission requirements (for example, in compliance with NHPA Section 106). However, a permit might be necessary for work in support of NAGPRA (for example, to recover human remains from a vandalized burial site). Under ARPA, all archeological artifacts and resources recovered from IAAAP are to remain the property of IAAAP and the U.S. Army.

Federal agencies may withhold any information pertaining to the location of archeological sites if the agency determines that disclosing such information would put the resource at risk. ARPA specifically excludes such information from responses to a FOIA request and may include all archeological resources, not just those that are eligible or listed on the NRHP. Federal agencies must develop plans for surveying lands not scheduled for specific undertakings, record and report archeological violations, and develop public awareness programs.

The Act's implementing regulations for the Department of Defense (DOD) (32 CFR Part 229) specify that protected resources must be at least 100 years old and of archeological interest. Rocks, coins, bullets, and minerals are excluded from protection, as are paleontological items not found in an archeological context. The regulations also outline the process for granting excavation permits.

1.2.1.5 Native American Graves Protection and Repatriation Act

The purpose and intent of the NAGPRA (PL 101601) is to acknowledge the ownership of certain human remains, funerary objects, and sacred artifacts by Native American tribes. The Act also requires that these objects be treated in a way that is agreeable to these tribes. The Act's implementing regulations are found in 43 CFR Part 10.

For remains or objects discovered on Federal lands after enactment of NAGPRA (1990), the Federal agency must notify Native American tribes of the discovery and must provide them with an opportunity to claim affiliation with the remains or objects. For remains or objects already in the possession of Federal institutions or agencies, the agency must inventory the remains or objects and provide the inventory to Native American tribes. The tribe established to have right-of-ownership may then consult with the agency to determine disposition of the remains or objects, and the agency is responsible for complying with these determinations. It should be noted that the NAGPRA Section 5 inventory for IAAAP has been completed.

1.2.1.6 American Indian Religious Freedom Act

The AIRFA of 1978 (PL 95-341) preserves for Native Americans their inherent right to believe, express, and exercise their traditional religions. This right includes access to archeological sites and other sacred places under Federal jurisdiction.

1.2.1.7 Curation of Federally Owned and Administered Archeological Collections

The effective and efficient care of archeological collections generated by public projects is a responsibility of many Federal and other public agencies. These regulations, found in 30 CFR Part 79, establish the definitions, standards, procedures, and guidelines to be followed in preserving collections of prehistoric and historic remains.

1.2.2 Executive Orders and Presidential Memoranda

This section summarizes various Executive Orders (EO) and Presidential Memoranda applicable to cultural resources management at IAAAP.

1.2.2.1 Executive Order 11593

EO 11593, dated 13 May 1971, establishes a national policy to preserve and maintain the historic and cultural environment of the United States. The EO directs Federal agencies to administer historic properties under their control so as to preserve the resources for future generations. This EO was essentially incorporated into the 1980 amendments to the NHPA as Section 110 and was further revised during the 1992 amendment to the NHPA.

Federal agencies must locate, inventory, and nominate all eligible sites, buildings, districts, and objects under their control to the Secretary of the Interior for listing on the NRHP. The Federal agencies must also take precautions to prevent historic properties from being sold, transferred, or demolished. Any property that will be damaged as a result of a Federal undertaking must be fully assessed and documented before it is impacted. The agencies must report their efforts to the Secretary of the Interior.

1.2.2.2 Executive Order 13007

EO 13007, dated 24 May 1996, establishes the responsibility of Federal agencies to allow access to and the ceremonial usage of sacred Native American sites on Federal land by Native American religious

practitioners. Agencies shall maintain confidentiality as to the location of such sacred sites and shall avoid adversely affecting their integrity.

1.2.2.3 Presidential Memorandum Concerning Eagle Feathers

A Presidential Memorandum, dated April 29, 1994, establishes U.S. policy with regard to the collection and distribution of eagle feathers for Native American religious purposes. Among other stipulations, agencies and installations must recover salvageable eagle carcasses and eagle feathers found on Federal lands and ship these to the National Eagle Repository.

1.2.2.4 Presidential Memorandum Concerning Government-to-Government Relations

A second Presidential Memorandum, also dated April 29, 1994, establishes U.S. policy with regard to conducting relationships with Native American tribes. Consultation with Native American tribes must be conducted as government-to-government relations.

1.2.3 Department of Defense Directive 4715.16

DOD Directive 4715.16, dated September 18, 2008, establishes DOD policy and assigns responsibilities regarding cultural resources management. The Directive covers programming and budgeting priorities for CRM programs and outlines required content for ICRMPs.

1.2.4 Army Regulations

This section summarizes Army regulations applicable to the management of cultural resources at IAAAP.

1.2.4.1 Army Regulation 200-1

AR 200-1 (Environmental Protection and Enhancement) covers environmental protection and enhancement and provides for compliance with the NHPA, NEPA, and other acts. AR 200-1 states that the Army's goal is to protect buildings, structures, sites, and objects of historic, architectural, archeological, and cultural value located on Army-controlled property. AR 200-1 also provides for environmental audits and status reports. Army entities that are responsible for the selection of military construction sites will conduct environmental surveys prior to site selection. AR 200-4 (Cultural Resource Management), effective 13 October 1997, prescribed the Army's policies, procedures, and responsibilities for managing cultural resources in support of the military mission and consistent with sound principles of resource stewardship. AR 200-4 was integrated into, and replaced by, AR 200-1, which currently serves as the Army's primary regulation for cultural resources.

1.2.4.2 Environmental Effects of Army Actions, 32 CFR Part 651 (Army Regulation 200-2)

Environmental Effects of Army Actions, formerly AR 200-2, establishes policy, procedures, and responsibilities for integrating environmental considerations into Army planning and decision-making. Environmental Effects of Army Actions implements the requirements of NEPA in assessing the environmental effects of Army actions. It establishes criteria for determining what Army actions are categorically excluded from requirements to prepare an EA or EIS, and it lists applicable categorical exclusions.

1.2.4.3 Army Regulation 870-20

AR 870-20 (Historical Properties and Museums) provides standardized guidelines and procedures for maintaining an Army museum. The procedures include caring for and maintaining historically significant property; certification as a professional museum; establishing exhibits; and acquisition, cataloging, and deaccession of historical objects. This regulation should be used in conjunction with regulation 36 CFR Part 79 of NHPA.

1.2.4.4 Army Regulation 1-33

AR 1-33 (The Army Memorial Program) sets policies, procedures, and responsibilities for the memorialization of deceased persons who distinguish themselves, and dedication in the name of living persons in accordance with a condition of a gift given to either the United States Military Academy (USMA) or a foundation/association for the benefit of USMA. The regulation also outlines procedures for memorials when an installation closes, directing the installation commander to offer the plaque to the next of kin of the person memorialized. If the next of kin cannot be located or refuses a plaque, it will be sent to the U.S. Army Historical Clearing House.

1.2.4.5 Army Regulation 210-190

AR 219-190 (Post Cemeteries) sets policies, procedures, and responsibilities for the operation, maintenance, and inspection of Army post cemeteries, whether they are open or closed, and Army controlled plots used for post burials within private cemeteries.

1.3 OVERLAPPING AUTHORITIES

This section discusses issues that have several applicable laws and regulations.

From the above review, it is clear that, in several cases, different laws and regulations pertain to the same issue. For example, inventory of all cultural resources on Federal land or under the control of a Federal agency is required by NHPA Section 110, by EO 11593, and by ARPA Section 14. Similarly, AIRFA, the Religious Freedom Restoration Act, and EO 13007 all deal with different aspects of Native American sacred places that may be under Federal control. As noted above, compliance with one law in no way abrogates an agency's responsibility to comply with all aspects of other applicable legislation.

Of greater importance to the practical management of cultural resources at IAAAP is the relationship between the NHPA and NEPA. In summary, compliance with NEPA does not in all cases constitute compliance with NHPA.

Both NHPA and NEPA are triggered when a proposed Federal action or undertaking has the potential to affect cultural resources. Under the NHPA, an undertaking has "no adverse effect" on a given historic property when it does not diminish those characteristics that qualify the property for inclusion in the NRHP. Under NEPA, a proposed action has "no significant impact" when it is not expected to affect the property to any significant degree. However, the demolition or modification of properties that are eligible for or are listed on the NRHP could trigger a NEPA EIS.

NEPA applies only to "major" actions that have the potential for significant impacts on the environment (and which are not categorically excluded), whereas the NHPA can be triggered by any undertaking that has the potential to affect NRHP-eligible cultural resources. For example, changing the original wood windows on an historic building to modern vinyl frames would not be a "significant impact" under

NEPA because it is extremely limited in degree, rather than a major action. However, this same undertaking could be an "adverse effect" under NHPA because it would diminish the integrity of the building.

Other areas where overlapping authorities may occur include archeological fieldwork being conducted utilizing an ARPA permit; this work would have to utilize the appropriate 36 CFR Part 800 process if the archeological property being impacted is eligible for or is listed on the NRHP. Similarly, an archeological excavation being conducted as an NHPA Section 106 action could trigger a NAGPRA requirement if Native American human remains or associated funerary objects are recovered.

Consultation requirements for NHPA, ARPA, NEPA, and the Sacred Sites EO are required. In the case of Section 106 coordination under the NHPA, Federal agencies are required to consult with other Federal, state, and local agencies, and Federally recognized Native American tribes in association with preservation-related activities. Consultation on permits issued for ARPA relates to several areas of legal authority. The regulations for issuing permits (1) include a specific requirement to notify Native American tribal groups regarding potential impacts to properties of significance to them, (2) requires coordination with Section 106 when the permit could impact properties eligible for or listed on the NRHP, and (3) requires that an appropriate NEPA document be prepared. While not explicitly stated, it is also appropriate that public involvement consisting of notifying regionally recognized archeological groups regarding the permit's scope and purpose be undertaken. NEPA also requires public disclosure of EAs and EISs for comment on significant impacts to the environment (including impacts to cultural resources). Under the Sacred Sites EO, Federal agencies are responsible for allowing access to and the ceremonial usage of sacred Native American sites on Federal land.

The consultation processes for these various laws and regulations may also overlap. For example, any NEPA undertaking would provide a good opportunity for public comment and consultation with issues relating to Section 106 consultation. On the other hand, cultural resource issues relating to NAGPRA, AIRFA, and sacred sites involve a combined effort to consult with Federally recognized tribes, if conducted as a government-to-government relation. In this case, the public disclosure as required by the NEPA process may not be the best method of consultation.

1.4 MANAGEMENT OPTIONS

This section explains the two alternative management strategies for ensuring NHPA compliance.

Under NHPA, every Federal action or undertaking with the potential to affect historic properties must be reviewed through "Section 106 consultation." Undertakings are defined as projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including the following:

1. Those carried out by or on behalf of the agency;

2. Those carried out with Federal financial assistance; and

3. Those requiring a Federal license, permit, or approval.

The Army and IAAAP must consult with the Iowa SHPO and ACHP, utilizing the process found in 36 CFR Part 800 (see Section 1.4.1 of this ICRMP) on all undertakings to determine whether the undertaking will affect any historic properties and to determine the level of effect. This consultation process can be

lengthy, is often redundant for similar undertakings, and can be challenging when implementing an installation's military mission.

To provide Federal agencies with additional flexibility, the implementing regulations (36 CFR 800.14) provide for several alternative methods of consultation, including PAs. AR 200-1 provides guidance to prepare and implement an agreement to address and streamline the Section 106 consultation process for ongoing mission and operations activities.

1.4.1 Case-by-Case Management

Procedures for Section 106 consultation are found in implementing regulation in 36 CFR Part 800. Before proceeding to Step 1 listed below, the IAAAP CRM must first determine if the proposed action is an undertaking, and also specify the "area of potential effect" (APE). As defined by the NHPA, an undertaking is a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including the following:

1. Those carried out by or on behalf of an agency;

2. Those carried out with Federal financial assistance;

3. Those requiring a Federal permit, license, or approval; and

4. Those subject to state or local regulation administered pursuant to a delegation or approval by a Federal agency.

It should be noted that for an undertaking, the Army does not need to know with certainty that NRHP properties are present or will be modified as a result of the planned action. In addition, an undertaking is only considered further for purposes of Section 106 when a property that is eligible for listing or that is listed on the NRHP is present, or if existing information is not sufficient to confirm the presence or absence of NRHP properties.

If the action is determined to be an undertaking, the IAAAP CRM must then determine the APE. The APE is defined in 36 CFR 800 as "the geographic area or areas within which the undertaking may cause changes in the character of or use of historic properties, if any such properties exist." It is important to remember that the APE is defined before the identification of NRHP properties begins, so it may not be known whether any historic properties actually exist there.

The following important issues should be considered regarding the APE:

1. The APE is defined before the identification of historic properties.

2. The APE is defined through a process of consultation with the SHPO and other interested parties identified by the SHPO.

3. The APE is not based on land ownership and therefore is not necessarily confined to the installation.

4. All alternative locations under consideration for the project must be included.

5. All locations from which the project may be visible and where there might be changes in traffic patterns, land use, or public access must be included.

6. The APE may not be the same area of effect as defined under NEPA.

7. The APE may not be a single area and may not have hard and fast boundaries.

8. The definition of the APE does not dictate what the Army must do to identify, avoid, or mitigate effects within it.

Once the IAAAP CRM determines that an action is an undertaking and the APE has been defined, the subsequent consultation process may be summarized in five steps.

- *Step 1: Identify and evaluate historic properties.* The Army must make a good-faith effort to locate and identify all historic properties that might be affected by the undertaking and must request the SHPO's opinion about whether further actions are needed to identify historic properties (36 CFR Part 800.4[a-d]). Properties must then be evaluated for their NRHP eligibility, and the Army must consult with the SHPO regarding their eligibility. Disagreements are referred to the Keeper of the Register, who acts on behalf of the Secretary of the Interior. If the Army finds one or more historic properties, it proceeds to Step 2.

- *Step 2: Assess the effect of the undertaking.* The Army must determine whether the proposed undertaking could affect the properties in any way – either positively or negatively. Again, the Army must consult with the SHPO to make this decision. A determination of no effect is made if no NRHP-eligible or listed properties are within the APE of the undertaking. If one or more NRHP-eligible or listed properties is found to exist within the APE, the Army must apply the criteria of effect per 36 CFR 800.5(a). A no effect determination is then made at 36 CFR 800.5(b) if the eligible property will not be impacted by the undertaking. If the Army finds no effect, then it must compile documentation that supports the finding and notify the SHPO. If any effect is found (either negative or positive) per 36 CFR 800.5(c), then 36 CFR 800.9(a) is applied to determine whether this is an adverse effect. If the Army finds no adverse effect (36 CFR 800.9[a]), then the Army must either obtain concurrence from the SHPO or submit the finding to the ACHP for review and notify the SHPO. In either case, documentation of the finding must be provided. If there is adverse effect (36 CFR 800.9[b]), the Army must proceed to Step 3.

- *Step 3: Consultation.* If the proposed undertaking will result in an adverse effect to any NRHP-eligible or listed property, then the Army must consult with the SHPO and with recognized interested parties and must notify the ACHP on ways to avoid, reduce, or mitigate the adverse effects of the undertaking on historic properties (36 CFR 800.5[e][4]). Either party may request that the ACHP join the consultation. Interested persons may also be invited to participate at the discretion of either party. In most cases, the consulting parties can agree on ways to accommodate historic preservation concerns as the undertaking proceeds. Usually, a MOA stipulates how the undertaking will be carried out in order to avoid or mitigate adverse effects.

- *Step 4: Council comment.* If consultation results in an MOA, the ACHP reviews and comments on it (36 CFR 800.6). If consultation fails to reach an agreement, the Army must request written comments from the ACHP and must submit written documentation (36 CFR 800.8[d]).

- *Step 5: Proceed.* If the ACHP has accepted or commented on an MOA, the Army may proceed with the undertaking in accordance with the terms of the MOA (36 CFR 800.6[c]). In the absence of a MOA, the Army must take into account the ACHP's comments before making a decision about how to proceed with the undertaking. The Army must then notify the ACHP prior to proceeding.

1.4.2 Alternatives to Case-by-Case Management

To provide agencies with additional flexibility, the implementing regulations (36 CFR 800.13) allow several alternatives to case-by-case management. These alternatives are discussed below.

1.4.2.1 Programmatic Agreements

The most common alternative to case-by-case review is the PA, developed among the Army, the ACHP, and the SHPO. A PA is a special type of MOA, typically developed for a large or complex project or for a class of undertakings that would otherwise require numerous individual requests for ACHP comments under Section 106. The ACHP and the Army arrange for public notice of the consultation and must request the views of state and local government agencies, Native American tribes, industries, and organizations. Upon reaching an agreement, the PA is published in the Federal Register. It remains in force until it expires or is terminated.

Among other situations, a PA is appropriate when the effects on historic properties are similar and repetitive or when undertakings involve routine management activities at Federal installations. Normal mission-related undertakings such as training and testing are especially suited for a PA, as are regular or recurrent non-mission-related undertakings, such as mining, agricultural, manufacturing, oil, gas, and forestry leases. This type of PA should strictly implement Section 106 compliance procedures and should not incorporate other ICRMP components such as compliance with NAGPRA, ARPA, or other laws and regulations.

Part of this ICRMP is utilized to develop alternative compliance procedures to streamline the Section 106 process. These procedures are detailed in Part 2 (Management Plan) of this document and will be included in a PA developed to implement these alternative practices, assuming the PA is signed by all parties.

1.4.2.2 Program Comment For World War II and Cold War Era (1939-1974) Ammunition Storage and Production Facilities

The Advisory Council on Historic Preservation's (ACHP) Section 106 regulations provides for alternative methods that federal agencies can utilize to meet their responsibilities under Section 106. One of these alternative methods is issued as the ACHP's Program comments. Program comments are issued by the ACHP at the request of the federal agency or on its own initiative. They are designed to provide the ACHP flexibility to issue comments on a federal program or class of undertakings instead of issuing comments on a case-by-case basis.

The ACHP's Program Comments for World War II and Cold War Era (1939-1974) Ammunition Storage Facilities apply to the IAAAP, as its original purpose was the storage of ammunition. The Program Comments, issued in 2006, were designed to provide the DOD and its Military Departments the ability to better manage their vast inventory of ammunition storage facilities associated with World War II and the Cold War era. The ACHP issued similar comments regarding World War II and Cold War era army ammunition production facilities and plants, which also apply to IAAAP.

The Program Comments for ammunition storage and production facilities designate certain categories of buildings and structures located on DOD property to be eligible for inclusion for the NRHP. Under these comments, the Army fulfilled prescribed measures mitigated to address the effects of certain undertakings, including demolition.

1.4.2.3 Army Alternate Procedures

The Army Alternate Procedures (AAP) was developed in conjunction with the ACHP and the Army to streamline Section 106 compliance responsibilities for the Army. The AAP was approved by the ACHP in 2001 and two installations have operated under AAP since 2006, Fort Sam Houston and Fort Benning. The AAP sets forth a process by which the Army manages its historic properties programmatically instead of on a case-by-case basis.

In order for an installation to utilize the AAP, several steps must be followed in a process outlined by the AAP. Once the decision is made to use the AAP, the Commander must document the decision. A Historic Properties Component (HPC) Plan is then developed in coordination with the stakeholders. The HPC is reviewed by the Army, then the consulting parties and the public, and finally by the ACHP. Once the ACHP certifies the HPC, the installation operates under the AAP for five years. A Cultural Resource Manager (CRM) must be designated by the Commander to carry out and coordinate the AAP for the installation. The CRM must either be qualified under the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, and/or have access to technical experts who meet those standards.

As a streamlined process for Section 106 compliance, the AAP was designed as a way to provide installations with more flexibility in project planning by internalizing the compliance process. Unlike other types of agreements including the PA, the AAP also internalizes adverse effects to historic properties.

The installation reports a summary of projects periodically to the SHPO. For an installation with many historic properties to manage and a well established CRM program and manager, the potentially lengthy procedure to become certified to implement the AAP may prove beneficial.

However, more traditional Programmatic Agreements may be more appropriate for installations with fewer historic properties to manage if routine activities can be identified and incorporated in a PA.

1.4.2.4 Other Alternatives

Other, less common alternatives to case-by-case management include: (1) counterpart regulations developed by Federal agencies to meet their unique circumstances, or (2) the use of state review processes. In both cases, the ACHP must approve the substitute review process.

2.0 MANAGEMENT PLAN

This section discusses the management plan and is comprised of four parts:

- *Policies* (see Section 2.1) that will assist IAAAP in facilitating compliance with historic preservation requirements;
- *Standard operating procedures* (see Section 2.2) that identify specific actions to be taken to ensure compliance;
- *A five-year plan* (see Section 2.3) that identifies key compliance objectives and the budget and schedule resources necessary to achieve these objectives; and
- *A plan summary* (see Section 2.4).

The program priorities for IAAAP are:

- **ESTABLISH a CRM Process**. IAAAP should put in place an integrated process for cultural resource management and project planning. Designating an experienced archeologist as the CRM would greatly benefit this effort, since IAAAP maintains a number of archeological sites.
- **COMPLETE the Archeological Inventory**. IAAAP needs to complete the required inventory of cultural resources as needed, based on new undertakings.
- **COMPLETE the Architectural Survey**. As buildings and structures become 50 years of age, survey and evaluation of those buildings should be conducted and coordinated with the SHPO.
- **NOMINATE Eligible Properties**. IAAAP needs to begin the process of nominating its significant eligible properties to the NRHP, pending available funding.
- **UPDATE the ICRMP**. IAAAP needs to integrate all work accomplished or not completed during the next five years for the next ICRMP.

2.1 POLICIES

This section stipulates management practices that will assist Iowa Army Ammunition Plant in facilitating compliance with historic preservation requirements.

2.1.1 Commanding Officer's Responsibilities

The Commander shall appoint a CRM and ensure that this ICRMP, PAs, and any MOAs are operational. The Commander's other cultural resource responsibilities are summarized in AR 200-1 and include the following:

- Establishing a process that involves the CRM in the early stages of the planning of projects;
- Evaluate implementing an installation-wide PA to streamline cultural resource compliance procedures;

- Establishing government-to-government relationships with Federally recognized Native American tribes and designating a Coordinator for Native American Affairs, as needed;

- Ensuring that cultural resources management is coordinated with installation activities such as mission planning, environmental impact analysis, natural resources and endangered species management planning and programming to include Integrated Natural Resources Management Plans;

- Establishing funding priorities and program funds for cultural resource compliance;

- Conducting a comprehensive evaluation of the installation's cultural resources management program as part of the environmental compliance assessment required by AR 200-1;

- Developing ICRMPs, PAs, MOAs, NAGPRA CAs and Plans of Action, and National Register of Historic Places nominations and coordinating such documents with MACOM and HQDA;

- Serving as the "Agency Official" as defined in 36 CFR 800, with responsibility for installation compliance with the NHPA;

- Serving as the "Federal Agency Official" as defined in 43 CFR 10, with responsibility for installation compliance with NAGPRA;

- Serving as the "Federal Land Manager" as defined in 32CFR 229, with responsibility for installation compliance with ARPA;

- Serving as the "Federal Agency Official" as defined in 36 CFR 79, with management authority over archeological collections and associated records; and

- Signing NHPA PAs, MOAs, and NAGPRA CAs and Plans of Action after MACOM and HQDA comments have been addressed, and preparing National Register nominations for historic properties.

2.1.2 Installation Cultural Resource Manager

As of February 2013, IAAAP's the CRM designated by the Commander is the formal point of review and coordination for all cultural resource compliance activities, in compliance with AR 200-1. At IAAAP, the installations Natural Resources Manager (NRM) also serves as the CRM. CRM duties at IAAAP are split to provide full installation coverage. CRM duties at IAAAP are additional duties to already existing positions. While the NRM serves as the overall CRM the NRM focus is on possible impacts to archeological resources. The Chief of Contract Administration also serves as Real Property Accountable Officer (RPAO) who reviews requests for the modification of facilities for possible impacts to structures to include cultural and historical impacts. The NRM and RPAO work together to provide full installation coverage.

The CRM's review, compliance, and coordination responsibilities include the following:

- Reviewing all undertakings, such as Army Military Construction Appropriation, Job Order Contracts, and training exercises, and Department of the Army (DA) 1391 Military Construction Project Data forms and determining the type and level of impacts to cultural resources;

- Determining the applicable laws and regulations;
- Determining the applicable SOPs (contained in this ICRMP), other applicable consultation or regulatory requirements, or if the undertaking is considered under the PA developed for NHPA compliance;
- Participating in consultation as provided in this ICRMP or otherwise specified by appropriate laws and regulations;
- Conducting and reviewing appropriate studies, as necessary;
- Serving as the IAAAP point of contact for Native American consultation;
- Serving as the IAAAP point of contact for consultation with the Iowa SHPO;
- Coordinating cultural resources management activities with organizational elements, tenants, and other parties identified by the IAAAP Commanding Officer; and
- Issuing permission for earth moving activities.

The CRM's record-keeping and curation responsibilities include the following:

- Developing and maintaining records, reports, and documentation sufficient for consultation and an assessment of cultural resources for their eligibility for inclusion in the NRHP (including maps, plans, notes, data forms, records, photographs, memoranda, journal notes, Job order requests, and draft and final reports); and
- Ensuring that artifacts recovered from IAAAP, and curated either at IAAAP or another suitable curation facility, are maintained in accordance with 36 CFR 79 (Curation of Federally Owned and Administered Archeological Collections). Artifactual material from IAAAP is currently curated at suitable repositories and agreements for the long-term curation of that material are in place.

The CRM's administrative responsibilities include the following:

- Assisting the Commander with developing funding priorities for all cultural resources program and compliance activities;
- Establishing cultural resources programming policy for identification of specific actions or projects requiring funding; identifying and documenting all current and projected cultural resources requirements;
- Developing budget requirements associated with Production Base Support; and
- Ensure that the current ICRMP is operational at all times and that all procedures of the ICRMP and stipulations of applicable PAs or MOAs are implemented, as required by AR 200-1.

2.1.3 NAGPRA Compliance and Native American Consultation

In compliance with NAGPRA, the CRM must ensure that an accurate and up to date inventory of Native American human remains, funerary objects, or sacred objects is maintained. It is the responsibility of the Commanding Officer and the CRM to begin repatriation consultations on materials identified during

inventories. If Native American human remains are found during project undertakings, the activity that precipitated the discovery will immediately cease and the installation Commander will immediately be notified. The CRM will initiate consultations with the appropriate tribe to develop a plan for disposition of the remains. Further work in the vicinity will cease for 30 days to allow for this required consultation.

The NAGPRA Section 5 inventory was completed for IAAAP and identified no human remains or funerary objects as being from IAAAP.

2.1.4 Economic Analysis of Historic Buildings Scheduled for Demolition

Section 110 of the NHPA requires that historic properties be considered by Federal agencies for re-use to the maximum extent feasible before disposal. An important way to ensure appropriate planning measures are being followed is to conduct an economic analysis of historic buildings and structures that are being considered for demolition and replacement. The decision to re-use, replace, or demolish a facility should be justified with a least cost, life-cycle economic analysis. The AEC and the Construction Engineering Research Laboratory have developed a computer-based analysis (Layaway Economic Analysis [LEA]) for buildings. LEA allows the inputting and manipulation of costs associated with repairs, maintenance, demolition, and replacement of buildings. LEA also has components that allow for adjustments for NRHP-eligible and listed properties.

When the economic analysis demonstrates that rehabilitation costs exceed 70 percent of the building's replacement cost, replacement construction may be used. However, the 70 percent value may be exceeded where the significance of a particular historic structure warrants special attention, or if warranted by the life cycle cost comparisons. The assessment of new construction must evaluate life-cycle maintenance cost, utility costs, replacement costs and other pertinent factors. Replacement costs should not be based on replacement in kind, but should be based on a design that is architecturally compatible with the historic property. If the building to be disposed of is an historic property, potential reuses of the building must be analyzed prior to making the final decision to dispose of the property.

2.1.5 Review, Monitoring, and Reporting

Copies of all documents pertaining to cultural resource management at IAAAP must be kept on file by the CRM, including, but not limited to, correspondence, memoranda to file, published and unpublished technical reports, annual compliance reports, maps, site records, and lists of properties. The CRM is to file reports in accordance with separately developed agreements and interagency agreements.

2.1.6 Public Involvement

Public consultation for Section 106 of the NHPA can be effectively completed by informing interested parties of potential impacts to historic properties in a timely manner. A recommended approach to secure a list of interested persons, historic preservation groups, and other interested parties, is to contact the Iowa SHPO and ask for a list of parties that have previously contacted their office seeking information on historic properties in the region of IAAAP. The Iowa SHPO will also be able to supply the names of potentially interested historic preservation groups in the region and elsewhere in the state or country with a particular interest in properties associated with IAAAP. IAAAP should also maintain the list (provided in Appendix B) of points of contact for Native American tribal groups with a potential interest in the outcome of Section 106 consultations on NRHP properties. A proactive approach to all consultation is best. Preparation of letters to all of the identified interested parties asking if they would desire to be kept informed of any potentially adverse impacts to NRHP-eligible properties will allow IAAAP to keep a list of those names that respond for quick coordination on significant projects. IAAAP will have to exercise

best judgment on the need to coordinate every Section 106 action and may find it appropriate to begin involved public coordination only if the undertaking has the potential to be significant or controversial. The use of the NEPA public involvement process is acceptable and recommended as an approach because it will allow for the combination of the two authorities into a single set of review and comment periods. However, the NEPA documents, notifications, newspaper announcements, and any public meetings must specifically identify that NRHP Section 106 is part of the subject matter. Any public involvement or public notice should be coordinated with the IAAAP Public Affairs Office.

2.1.7 NHPA and Tribal Consultation

Section 106 requires that Federal agencies consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an agency's undertakings. The ACHP provides guidance for Federal agencies on carrying out tribal consultation under Section 106. The basis for this consultation is the understanding of the government-to-government relationship that the Federal government and Indian tribes have with one another. As a result, each Federal agency is required to establish programs that describe and maintain the consultative relationship with tribes. The ACHP notes that Federal agency staff responsible for carrying out tribal consultation should be familiar with the history of the relationship between the U.S. government and Indian tribes because that history may influence the context of consultation. AR 200-1 further defines tribal consultation for the Army, which sets forth the procedure for consultation, requiring:

1. Consultation occurs formally and directly between Commanders and heads of Federally-recognized tribal governments;

2. Commanders establish government-to-government relations with Federally-recognized Indian tribes by means of formal, written letters to the head of tribal governments;

3. Such letters should designate an installation Coordinator for Native American Affairs who is authorized to conduct follow-on consultations with designated representatives of the tribal government; and

4. Installations assess the impact of their plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities (ACHP 2008).

The ACHP advises agencies to consult with tribes as early in the planning process as possible. Consultation with Indian tribes during the Section 106 process requires more than simply notifying an Indian tribe about a planned undertaking. The ACHP guidance cites a combination of modes of communication, including written correspondence, meetings, telephone conferences, site visits, and e-mails that should be utilized during consultation. Consultation is not only required when an undertaking occurs on tribal lands, but off tribal lands as well. The NHPA does not restrict tribal consultation to only tribal lands as there may be ancestral homelands of an Indian tribe or tribes located off of tribal lands, and those may contain historic properties of religious and cultural significance (ACHP 2008).

The Tribal Historic Preservation Officer (THPO), established by the tribe, serves as the historic preservation officer for tribal lands. The THPO may also serve, if decided by the tribal government, as the sole point of contact for federal undertakings off tribal lands.

2.1.8 NEPA and Tribal Consultation

Consultation with Native American tribal groups can be involved and may require considerably more planning and allowance for time to complete. While NAGPRA has its own specific requirements for consultation and notification, AIRFA and the Sacred Sites EO 13007 do not. Properties of traditional significance to Native Americans such as plant gathering areas, traditional hunting or fishing areas, or other resource gathering areas should be addressed as part of coordination and consultation under NEPA by specifically addressing those issues during the NEPA document preparation. In order to obtain points of contact for recognized tribal groups, IAAAP should not only utilize the list of regionally culturally affiliated tribal groups provided by the NAGPRA Section 5 inventory, but should consider other tribal groups who may have had a historic association with the area of IAAAP. All coordination and consultation should be conducted according to the Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments, dated April 29, 1994.

Appropriately, consultation on issues of importance to Native American tribal groups should be initiated with a letter asking their concerns with the management of the types of resources covered by NAGPRA, Sacred Sites, NHPA, and ARPA. The letter should be followed with a telephone contact to the identified tribal point of contact and, if necessary, a visit to tribal headquarters by the IAAAP Commander. While tribal groups may not be willing to readily identify areas where burials have occurred, where sacred sites are located, or where traditional properties are located, consultation can provide IAAAP with enough baseline information to indicate major areas of concern and where issues will be of critical importance in accomplishing a project in a timely manner. It is possible to use the NEPA public involvement process to address some concerns of importance to Native American tribal groups but it is not the most acceptable approach.

Consultation on permits issued for ARPA relates to several areas of legal authority. The regulations for issuing permits note a specific requirement to notify Native American tribal groups regarding potential impacts to properties of significance to them, requires coordination with Section 106 when the permit could impact properties eligible for, or listed on, the NRHP, and requires an appropriate NEPA document be prepared. While not explicitly stated, it is also appropriate that public involvement be undertaken, consisting of notifying regionally recognized archeological groups regarding the permit's scope and purpose.

2.1.9 Compliance with Other Mandates

To ensure compliance with AIRFA, EO 13007, and the 1994 Presidential Memorandum concerning the distribution of eagle feathers for Native American religious purposes, the CRM shall maintain communication with appropriate Federally recognized tribes and shall consult with tribal leaders as appropriate. No specific time frames or notifications are associated with the mandates.

2.2 GENERAL PROCEDURES FOR INSTALLATION COORDINATION OF CULTURAL RESOURCES

As outlined in Section 3.4.2 of this ICRMP, dig notices are submitted to the CRM for every activity that will disturb soils. Modification requests are submitted to the RPAO for modification to facilities (buildings and structures). Non-routine undertakings such as new constructions (buildings or roads), demolitions, and relocations of buildings, are reviewed for possible adverse effects to cultural resources. The following discussion will reiterate the current process utilized by IAAAP for initiating and completing projects, and then will discuss where along this process the CRM (as well as those who initiate projects) needs to address cultural resource issues.

Installation organizational elements (such as Engineers, Maintenance, Shops, Utilities, Contracting, Land/Natural Resources Manager, Real Property, Security, Public Affairs, Tenants, and other parties identified by the Commanding Officer) must coordinate with the CRM early in the planning of projects for the following purposes:

- Determine if an undertaking or possibility for impacts to cultural resources exists;
- Determine the area of potential effect and the resource types affected;
- Determine applicable laws and regulatory requirements;
- Ascertain if existing information is sufficient to make a determination;
- Coordinate agency, public, and Native American consultation as appropriate; and
- Complete any additional studies or consultation needed.
- Make appropriate determinations of impact or effect and coordinate results.

The contractor-operator at IAAAP has the overall responsibility for installation operations under a "facilities use" contract. However, since IAAAP is a government-owned facility, responsibility for the whole of IAAAP ultimately rests with the Army.

Ongoing and routine undertakings at IAAAP are reviewed for possible adverse effects to cultural resources via Dig Notices, Modifications Requests, and Land Use Controls. These undertakings include but are not limited to repair and maintenance of buildings, structures, and roads, landscape maintenance, and military mission undertakings.

Non-routine undertakings such as new construction (buildings or roads), demolitions, and relocations of buildings, are also reviewed for possible adverse effects to cultural resources through Dig Notices, Modifications Requests, and Land Use Controls.

Currently, 957 buildings and structures at IAAAP are assigned the code ELPA (eligible for the purposes of a program alternative) as the result of two 2006 Program Comments between the DOD and ACHP. The program comments provide mitigation for eligible ammunition storage and production facilities and plants. Under the program comments, the DOD and Army have met Section 106 responsibilities regarding effects of the following management actions on World War II and Cold War Era ammunition storage facilities and ammunition production facilities and plants that may be eligible for National Register listing:

- Ongoing Operations;
- Maintenance and Repair;
- Rehabilitation;
- Renovation;
- Mothballing;
- Cessation of Maintenance;
- New Construction;

- Demolition;
- Deconstruction and Salvage;
- Remediation Activities; and/or
- Transfer, Sale, Lease, or Closure of such facilities.

As of 2013, cultural resources procedures consisted of review of Dig Notices, Modifications Requests, and Land Use Controls. Additionally, the CRM manages tillage procedures within the Agricultural/Grazing Outlease Program to avoid impacts to possible intact archeological features below the current plow zone.

Cultural resource considerations are formally integrated into IAAAP's mission processes through Dig Notices, Modifications Requests, and Land Use Controls. All projects considered undertakings, as defined by 36 CFR Part 800 of the NHPA, and that have the potential to effect historic properties should be submitted to the SHPO for review and comment as part of the NHPA's requirement that Federal agencies take historic properties into account in their projects. Programmatic Agreements (PA) can be developed to streamline review of routine projects. If adverse impacts to a resource of undetermined eligibility cannot be avoided, then the CRM should consult in advance with the Iowa SHPO and arrange to have additional survey (such as archeological site testing) conducted to assess the significance of the resource, the results of which are also coordinated with the Iowa SHPO.

For other types of cultural resources (such as NAGPRA sites, TCPs, and sacred sites) the CRM must initiate consultations with appropriate Native American tribes to determine the presence, if any, of these properties. Descriptions of these types of properties, and identification, evaluation and consultation procedures are detailed in Section 2.1.5 of this ICRMP. Generally, these procedures should be considered as early as possible in the planning stages of an undertaking.

2.3 STANDARD OPERATING PROCEDURES

This section contains detailed procedures that are designed to ensure regular and systematic compliance with cultural resource laws and regulations.

Each of the following SOPs is a set of rules that outlines responsibilities and identifies specific actions the Army must take to ensure compliance with one or more Federal laws or regulations. Each SOP is triggered by a specific kind of proposed undertaking (for example, the proposed re-roofing of a building), an occurrence (such as the discovery of human bones in a backhoe trench), or a compliance goal (for example, completion of the mandated inventory). Topics for the SOPs include the following:

1. Project coordination with the CRM and the Section 106 process;
2. The maintenance, repair, alteration, and demolition of existing buildings;
3. The construction of new buildings;
4. Ground-disturbing undertakings; and
5. Emergency discovery of archeological deposits.
6. Prevention of vandalism to cultural resources

7. Treatment of human remains and funerary or sacred objects

8. Identification and nomination of eligible properties for the NRHP

9. Review and monitoring of compliance

Each SOP is targeted at ensuring compliance with a specific law or regulation. For example, SOP No. 6 is designed to ensure compliance with the Archeological Resource Protection Act, and SOP No. 7 is designed to ensure compliance with NAGPRA. Table 2.1 cross-links the SOPs to specific laws and regulations. Because the NHPA is a key and complex cultural resource protection law, full compliance with it is accomplished by means of four separate procedures (SOPs No. 1 through 5). Broadly, each SOP treats different classes of cultural resources. For example, historic buildings are treated by SOPs No. 2 and 3, while archeological sites are treated mainly by SOPs No. 4, 5, and 6. As an organizational aid, Table 2.2 cross-links the SOPs to several classes of cultural resources. The CRM is not always qualified under the Secretary of the Interior's Standards for Professional Qualifications to carry out some of the duties specified in the following SOPs. In these cases, qualified personnel will be hired on a contract basis to fulfill any duties necessary for compliance.

Table 2.1 Standard Operating Procedures, Keyed to Laws and Regulations

		Law or Regulation[1]					
Operating Procedure	Subject	NHPA	NEPA	ARPA	AIRFA	NAGPRA	AR 200-1
SOP No. 1	CRM Staffing & Coordination	●	●	●	●	●	●
SOP No. 2	Historic buildings	●	●				●
SOP No. 3	New construction	●	●				●
SOP No. 4	Ground disturbance	●	●			●	●
SOP No. 5	Emergency discovery	●	●			●	●
SOP No. 6	Preventing vandalism	○		●	○		●
SOP No. 7	NAGPRA compliance				○	●	●
SOP No. 8	Inventorying properties	●					●
SOP No. 9	Compliance reporting	●	●	●	○	●	●

[1] ● = Primary importance
○ = Secondary importance

Table 2.2 Standard Operating Procedures, Keyed to Type of Cultural Resources

		Type of Cultural Resource[1]					
Operating Procedure	Subject	Historic Buildings and Structures	Historic Districts	Known Archeo-logical Sites	Unknown Archeo-logical Sites	Human Remains	Sacred Objects and Sites
SOP No. 1	CRM Staffing & Coordination	●	●	●	●	●	●
SOP No. 2	Historic buildings	●	●				
SOP No. 3	New construction		●		○		
SOP No. 4	Ground disturbance	○	○	●	●	●	●
SOP No. 5	Emergency discovery				●	●	●
SOP No. 6	Preventing vandalism			●		●	●
SOP No. 7	NAGPRA compliance			○	○	●	●
SOP No. 8	Inventorying properties	●	●	●	●		
SOP No. 9	Compliance reporting	●	●	●	●	●	●

[1] ● = Primary importance
○ = Secondary importance

Each SOP is prefaced by an introduction, applicable laws and regulations, and a policy statement. The procedures are presented in an "if-then" outline format and are accompanied by a flow chart that summarizes the decision process involved in compliance.

Although staff may change, these are the positions currently considered key to maintaining a working knowledge of the SOPs:

- Joseph Haffner, Natural and Cultural Resources Manager,
- Leon Baxter, Chief of Operation Support, and
- Julie Solinski, Chief, Contract Administration.

Public involvement is an important component of many of the SOPs. Please refer to Section 2.1.6 for further guidance on coordinating public involvement.

STANDARD OPERATING PROCEDURE No. 1:

Internal Cultural Resource Management Program Staffing and Coordination Procedures

The cultural resources management program employs specific methods, techniques, policies, plans, and practices to meet its responsibilities in order to manage the cultural resources at IAAAP. The CRM is the individual, appointed by IAAAP's commander, who must address all cultural resource issues and maintain IAAAP's compliance with federal and state regulations. In the event or in the potential event that cultural resources are, have been, or may be affected at IAAAP or at other locations as a result of IAAAP activity, it is critical that the CRM is contacted immediately. This SOP provides the necessary information in which to contact IAAAP's CRM.

Applicable Laws/Regulations

- National Historic Preservation Act
- National Environmental Policy Act
- Army Regulation 200-1

Policy

Any activity where cultural resources are, have been, or may be affected at IAAAP or off-base as a result of IAAAP activity, must have project consultation with the IAAAP CRM. Cultural resources include archeological sites, historic buildings or structures, or historic objects. Cultural resources often are not obvious at first glance, and typically require some level of investigative survey. Affects to a cultural resource may result from earthmoving activities, maintenance to properties, structures, or buildings, or alteration to the natural landscape and/or the structures or buildings located at IAAAP or those areas off-base that are used for activities conducted by IAAAP personnel. Any undertaking has the potential to affect cultural resources, and therefore must be coordinated with the IAAAP CRM prior to implementation.

Procedures

In any circumstance where an event has or will affect cultural resources, the IAAAP CRM and this ICRMP must be consulted as early as possible to:

1) help identify the appropriate SOP that applies to the given situation, and
2) provide the necessary assistance to the IAAAP personnel that must follow the guidance described in the appropriate SOP.

It is critical that the IAAAP CRM has the opportunity to proactively review the potential impacts to the cultural resources that are located on IAAAP and in the locations where off-base activity takes place. Figure 2.1 outlines the procedure that applies to contacting the IAAAP CRM. It is the responsibility of the

CRM to implement the Federal and State laws and regulations as they apply to cultural resources at IAAAP. Prior to acquiring, constructing, or leasing buildings or properties for purposes of carrying out agency responsibilities or conducting regular Army activity both on-base and off-base, the CRM must be afforded the opportunity to conduct a project review. At this point the CRM must determine if the Section 106 process (as defined by the NHPA) must be initiated in order to ensure IAAAP is in compliance with federal and state regulations. Figure 2.2 outlines the Section 106 process. For more information on Section 106 regulations, see http://www.achp.gov/work106.html.

Figure 2.1 Standard Operating Procedure #1, Internal Cultural Resource Management Staffing and Coordination Procedures

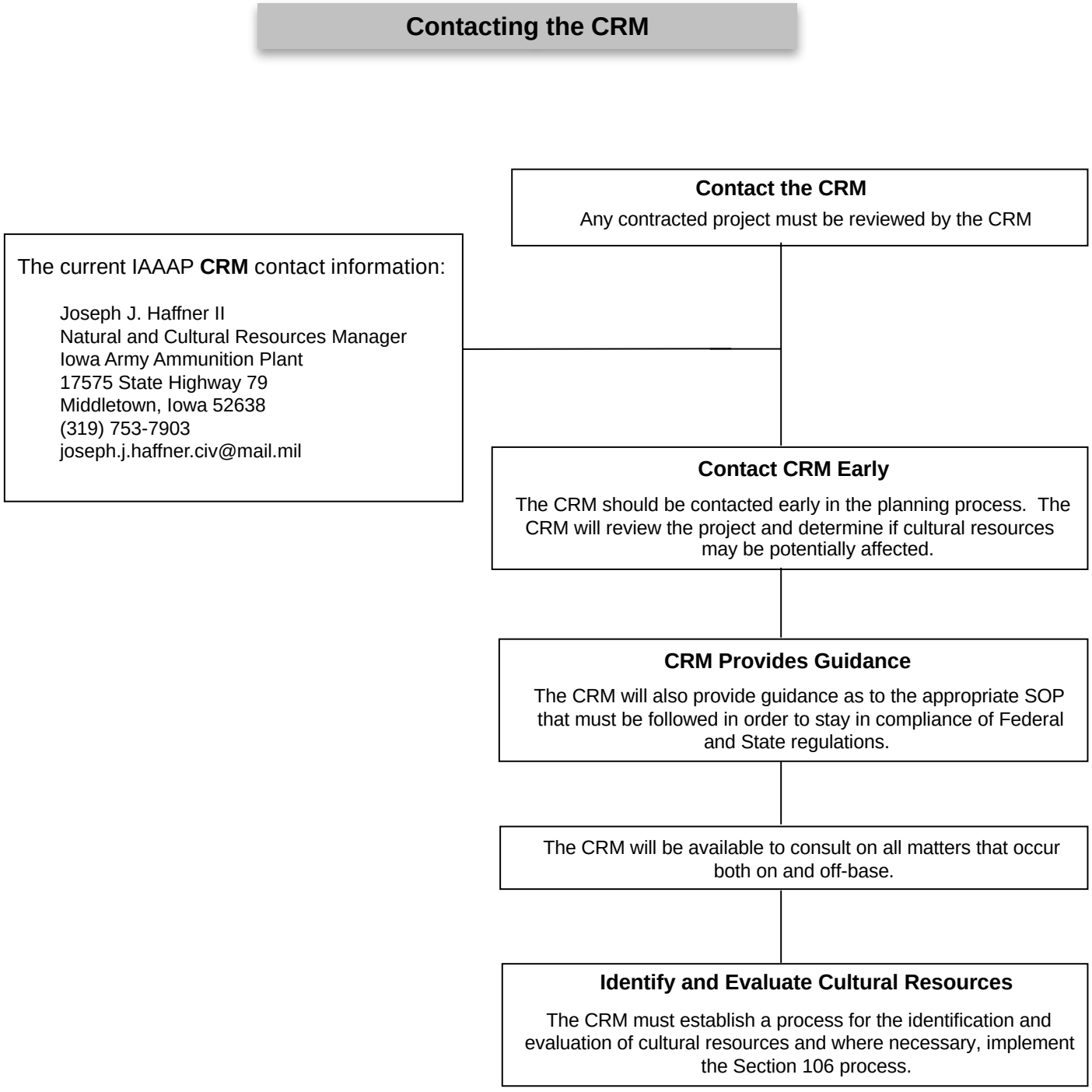
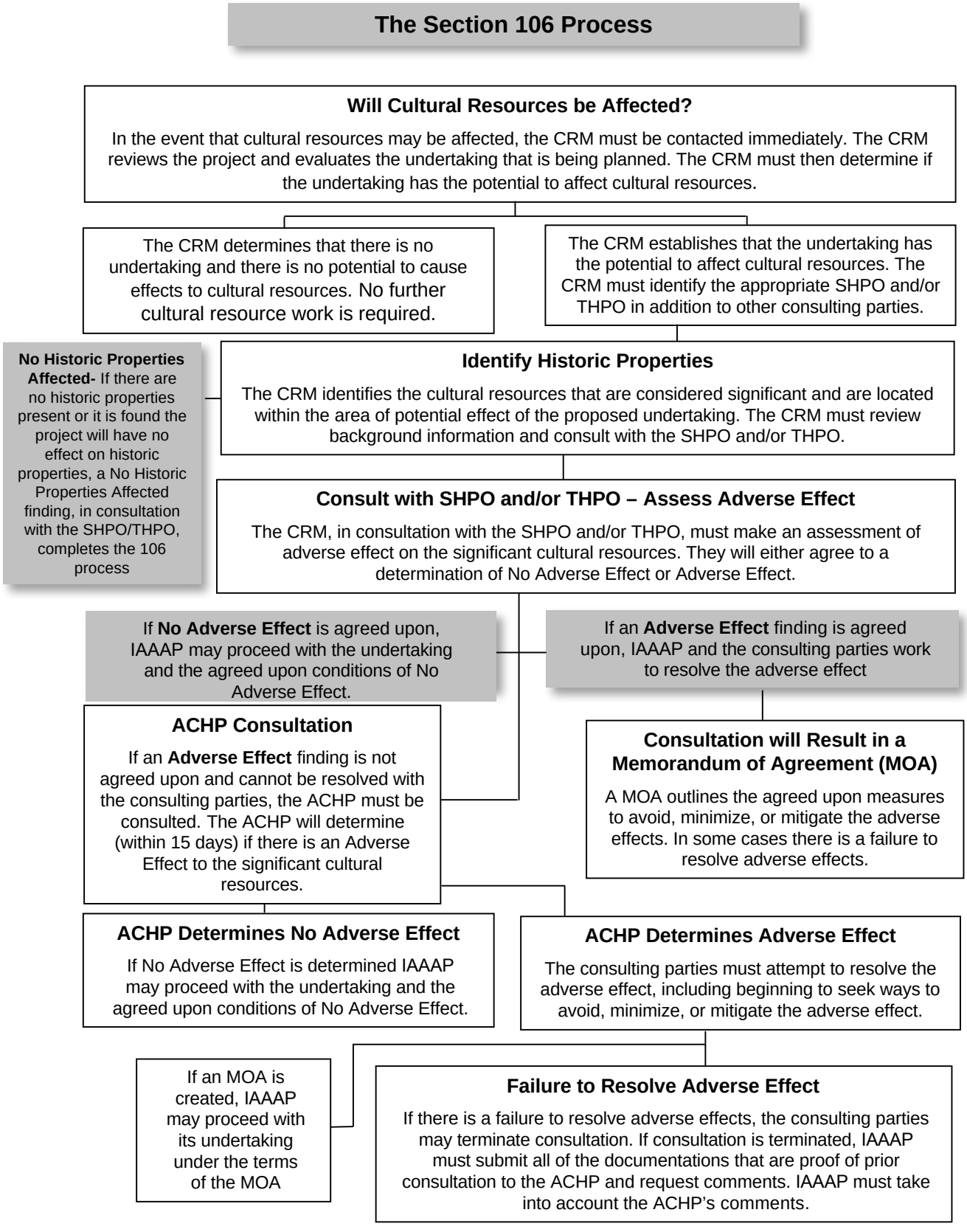


Figure 2.2 Standard Operating Procedure #1, the Section 106 Process



Public involvement is an important part of the Section 106 process and the public's view should be sought and considered throughout the process.

STANDARD OPERATING PROCEDURE No. 2:

Assessing the Effects of and Mitigating Adverse Effects Resulting from the Maintenance, Repair, Alteration, and Demolition of Historic Buildings or Their Leasing/Licensing

The maintenance, alteration, renovation, and demolition of buildings can result in adverse effects to historic properties. Reducing or withdrawing maintenance from a historic building is considered an adverse effect, and the leasing and licensing of historic buildings may cause an adverse effect due to changed management procedures. In compliance with Section 106 of the NHPA and its implementing regulations, this SOP specifies procedures to implement in planning such undertakings. It should be noted that this SOP is applicable only to NRHP-eligible or listed properties and that alterations to uninventoried areas and evaluated properties need to follow SOP #8. Figure 2.3 summarizes the compliance process.

Applicable Laws/Regulations

- National Historic Preservation Act
- National Environmental Policy Act
- Army Regulation 200-1

Policy

- The avoidance of adverse effects to NRHP-eligible historic buildings at IAAAP shall be proactively incorporated into the design and planning process.
- Nearly all facilities at IAAAP have been assigned a code associated with NRHP eligibility per the 2006 Program Comments (see Appendix G). Facilities will be treated as coded unless these agreements are replaced by future programmatic agreements or program comments.
- All buildings and structures listed on or considered potentially eligible for inclusion on the NRHP shall receive priority and regular maintenance to prevent deterioration through neglect.
- Maintenance, repair, alterations, and demolition of historic buildings must comply with the Secretary of the Interior's standards and guidelines for building rehabilitation.
- The procedures covered herein apply to both in-house work and contracted work.

Procedure

Before proceeding to Step I listed below, the IAAAP CRM must first determine if the proposed action is an undertaking, and also specify the "area off potential effect" (APE). As defined by the NHPA, an undertaking is a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including:

1) Those carried out by or on behalf of an agency;
2) Those carried out with federal financial assistance;
3) Those requiring a federal permit, license, or approval; and
4) Those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency.

It should be noted that for an undertaking the Army does not need to know with certainty that NRHP properties are present or will be modified as a result of the planned action. Additionally, an undertaking is only considered further for purposes of Section 106 when NRHP-eligible or listed property(ies) is/are present, or if existing information is not sufficient to confirm the presence/absence of NRHP properties. If the action is determined to be an undertaking, the IAAAP CRM must then determine the APE. The APE is defined in 36 CFR 800 as "the geographic area or areas within which the undertaking may cause changes in the character of or use of historic properties, if any such properties exist." It is important to remember that the APE is defined before the identification of NRHP properties itself begins, so it may not be known whether any historic properties actually exist there.

Important issues to remember regarding the APE are listed below:

1) The APE is defined before the identification of historic properties;
2) The APE is not based on land ownership and, thus, is not necessarily confined to the installation;
3) All alternative locations under consideration for the project must be included;
4) All locations from which the project may be visible and where there might be changes in traffic patterns, land use, or public access must be included;
5) The APE may not be the same area of effect as defined under NEPA;
6) The APE may not be a single area and may not have hard and fast boundaries; and
7) The definition of the APE does not dictate what the Army must do to identify, avoid, or mitigate effects within it.

All planned undertakings which may result in adverse effects to historic buildings, including plans, specifications, and work orders for maintenance, repair, alterations, and demolition to any building or structure, shall be reviewed by a contracted, qualified professional.

I. If the proposed undertaking is listed as of no effect, according to procedures given in 36 CFR 800, then the CRM will consult with the SHPO and the undertaking may proceed. Otherwise, Section 106 compliance steps should continue as defined in 36 CFR 800.

II. If the undertaking's effect is unknown, then the CRM will consult maps, lists, and other records as appropriate to determine the NRHP eligibility status of the property that may be affected.

   A. If the affected property is a WW II-era temporary building, then the CRM may allow proposed demolition to proceed without further action. However, if the temporary building is within an identified district, the undertaking should be reviewed by the SHPO.

   B. If the building or structure has not been evaluated as to eligibility for inclusion on the NRHP, then the CRM shall ensure that an evaluation is completed by qualified personnel. Further planning of the undertaking may proceed with the understanding that the determination of eligibility may require design changes or Section 106 consultation.

C. If the building or structure has been evaluated as not eligible for inclusion on the NRHP, and if the SHPO has previously concurred with this determination, then the CRM may allow the action to proceed without further action.

D. If the building has been evaluated as eligible for inclusion on the NRHP, either individually or as a member of an identified district, the following management standards are applicable.

1. Maintenance operations and materials must be sympathetic to the historic fabric of the structure.

2. Repairs should be made with materials of like kind (i.e., color, texture, hardness, style) that do not detract from the historic integrity of the building or structure.

3. Alterations shall follow the Secretary of the Interior's standards and guidelines for building rehabilitation and should adhere to the following.

a. Massing shall be of similar setbacks and rhythm of the original building or structure.

b. Volume shall be consistent with the original building or structure.

c. Profiles and facade setbacks shall be complementary to the original building or structure.

d. Windows and doors shall be of similar openings and style to that of the original.

e. Materials and units assemblies shall be of similar color, texture, and style to those utilized in the original.

4. Demolition of some NRHP-eligible or listed historic buildings or structures may require the preparation of an MOA between IAAAP, the SHPO, and the ACHP, as specified under III-B below.

III. If the adverse effect of any undertaking on a historic building or structure cannot be avoided through the above procedures, the Army shall implement one of the following alternative actions, depending on the urgency of the undertaking.

A. The Army may redesign the project to avoid adverse effect.

B. The Army may proceed with a mitigation plan.

1. The Army shall develop an MOA with the SHPO, specifying the scope and level of effort required to mitigate the adverse impact of the project on the property in question. One possible mitigation measure will be recordation of the property to HABS/ Historic American Engineering Record (HAER) standards.

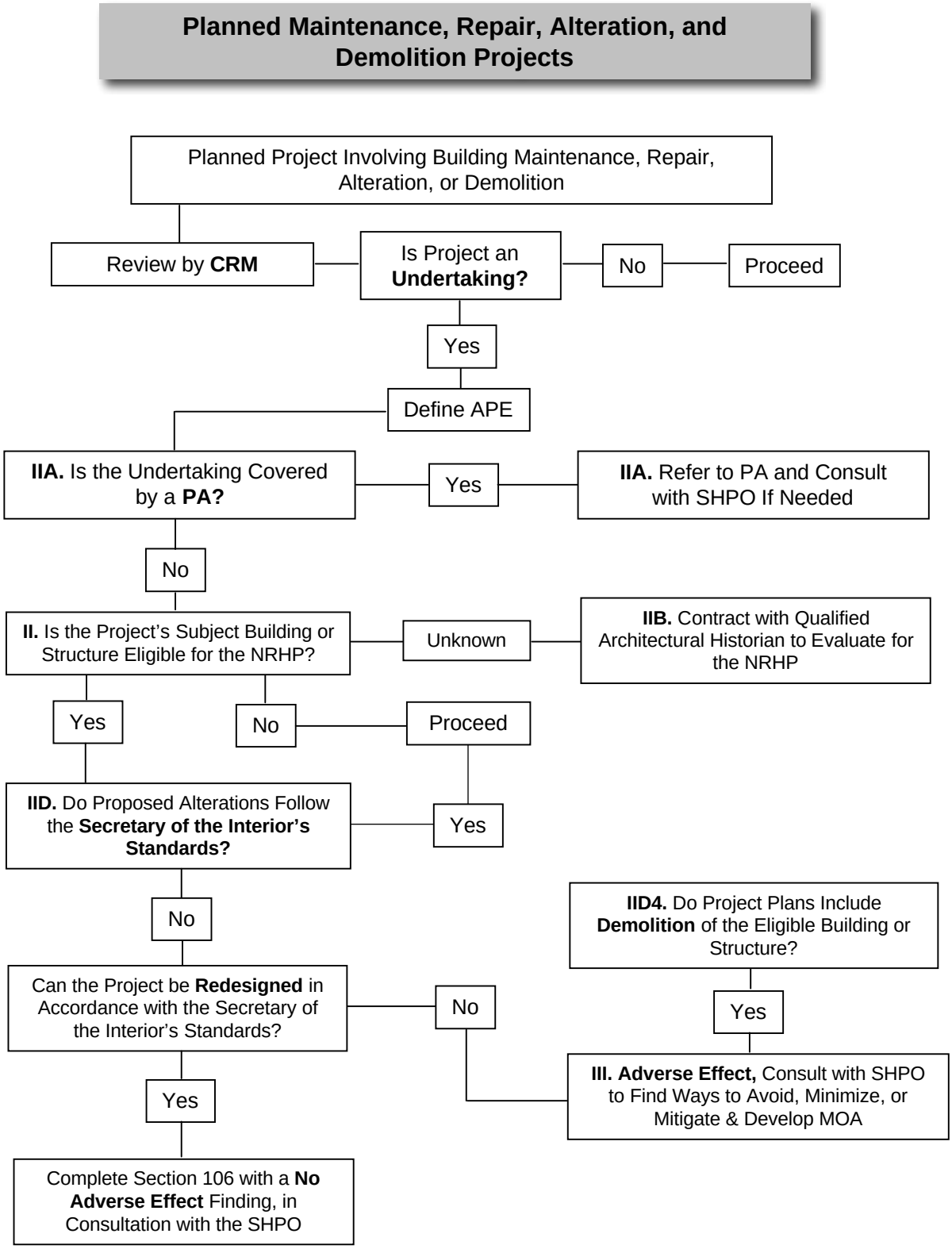
2. Mitigation plans shall take into account cost and mission requirements and shall be based on a balancing of economics and public interest.

C. The Army may request comments from the ACHP and may develop and implement actions that take into account the effects of the undertaking and the comments of both the SHPO and the ACHP. If the SHPO indicates that the property is significant and the effects of the undertaking on the property are serious, then the Army shall make reasonable efforts to minimize harm to the property until the Section 106 process is completed.

IV. Any leasing/licensing of historic buildings must follow the same guidelines outlined above. The lessee/licensee will notify the CRM of any proposed rehabilitation or structural alteration to historic properties or to the landscape/landscape features and will provide a detailed description of the undertaking prior to any rehabilitations/alterations. Within 30 days of receipt of such notification and adequate supporting documentation, the CRM will notify the Lessee/Licensee in writing that the undertaking conforms to the Standards and that the Lessee/Licensee may proceed or that the undertaking does not conform to the Standards and that the Lessee/Licensee may not proceed. If the CRM determines that the undertaking does not meet the Standards, the CRM will, with the assistance of the Lessee/Licensee, fulfill the requirements of Section 106 of the National Historic Preservation Act and its implementing regulation, Protection of Historic Properties (36 CFR Part 800). The Lessee/Licensee will not undertake the proposed action until the CRM notifies the Lessee that the requirements of Section 106 have been fulfilled and the Lessee may proceed. If the CRM objects to the Lessee's/Licensee's proposed undertaking, the CRM will notify the Lessee/Licensee that the proposed action may not proceed.

V. IAAAP proactively protects and preserves NRHP-eligible historic buildings and structures. The CRM periodically inspects the condition of all NRHP eligible buildings and structures to monitor the compliance of undertakings and to ensure that deterioration through neglect has not adversely affected the properties. Non-compliance and deterioration will be documented in writing and photographically.

Figure 2.3 Standard Operating Procedure #2, Planned Maintenance, Repair, Alteration, Demolition, or Leasing/Licensing Undertaking



STANDARD OPERATING PROCEDURE No. 3:

Assessing the Effects of and Mitigating Adverse Effects Resulting from the Construction of New Buildings

The construction of new buildings can have adverse effects on historic properties through the disturbance of buried archeological deposits or by intrusive visual impacts to historic buildings and structures, if any exist in the area of the proposed impacts. Impacts to archeological resources may be caused by construction and earth-moving activities, which would impact the integrity of the site and diminish its data capabilities. The construction of a building or structure which uses architectural or engineering elements that are not compatible with nearby historic properties would impact the integrity, character, and/or feeling of an historic property by introducing negative elements. This SOP outlines procedures to be used to ensure compliance with Section 106 of the NHPA and its implementing regulations. Figure 2.4 summarizes the compliance process.

Applicable Laws/Regulations

- National Historic Preservation Act
- National Environmental Policy Act
- Army Regulation 200-1

Policy

- The avoidance of adverse effects to possibly identified districts at IAAAP shall be proactively incorporated into the design and planning process.
- New construction within the boundaries of historic districts shall complement the style, character, and feeling of those aspects of the district that determine its eligibility.
- The procedures covered herein apply to both in-house work and contracted work.

Procedure

All planned, new permanent construction shall be reviewed by the IAAAP CRM for possible adverse effects to historic properties, including preliminary plans, architectural drawings, and specifications. The CRM shall review plans to determine whether the proposed new construction is within a historic district. To ensure compliance with Section 106 of the NHPA, the CRM shall consult with the Iowa SHPO regarding the proposed undertaking.

I. If the new construction is not within a historic district and the new construction will not disturb the ground surface (including foundations, gas and water pipes, and utility lines), then the CRM will consult with the SHPO and the undertaking may proceed.

II. If the new construction is not within a historic district, but the new construction will disturb the ground surface, then the CRM shall implement SOP #4.

III. If the new construction is within a historic district, the CRM shall consult with appropriate staff, other planners, and the Iowa SHPO.

A. If the character, style, materials, and feeling of the new construction is compatible with that of the historic district, or if the undertaking can be relocated so that it does not affect the viewshed of the historic district, then the CRM shall prepare a memorandum to file and the undertaking may proceed, subject to SOP #4.

B. If the undertaking is not compatible with the historic district or if the undertaking cannot be relocated so it does not affect the viewshed of the historic district, then the CRM shall consult with Project Planners to determine whether the undertaking can be designed to complement the character, style, materials, and feeling of the contributing members of the historic district.

1. If the undertaking can be designed to complement the historic district, then the CRM shall consult with the SHPO, and develop an MOA to mitigate any adverse effects.

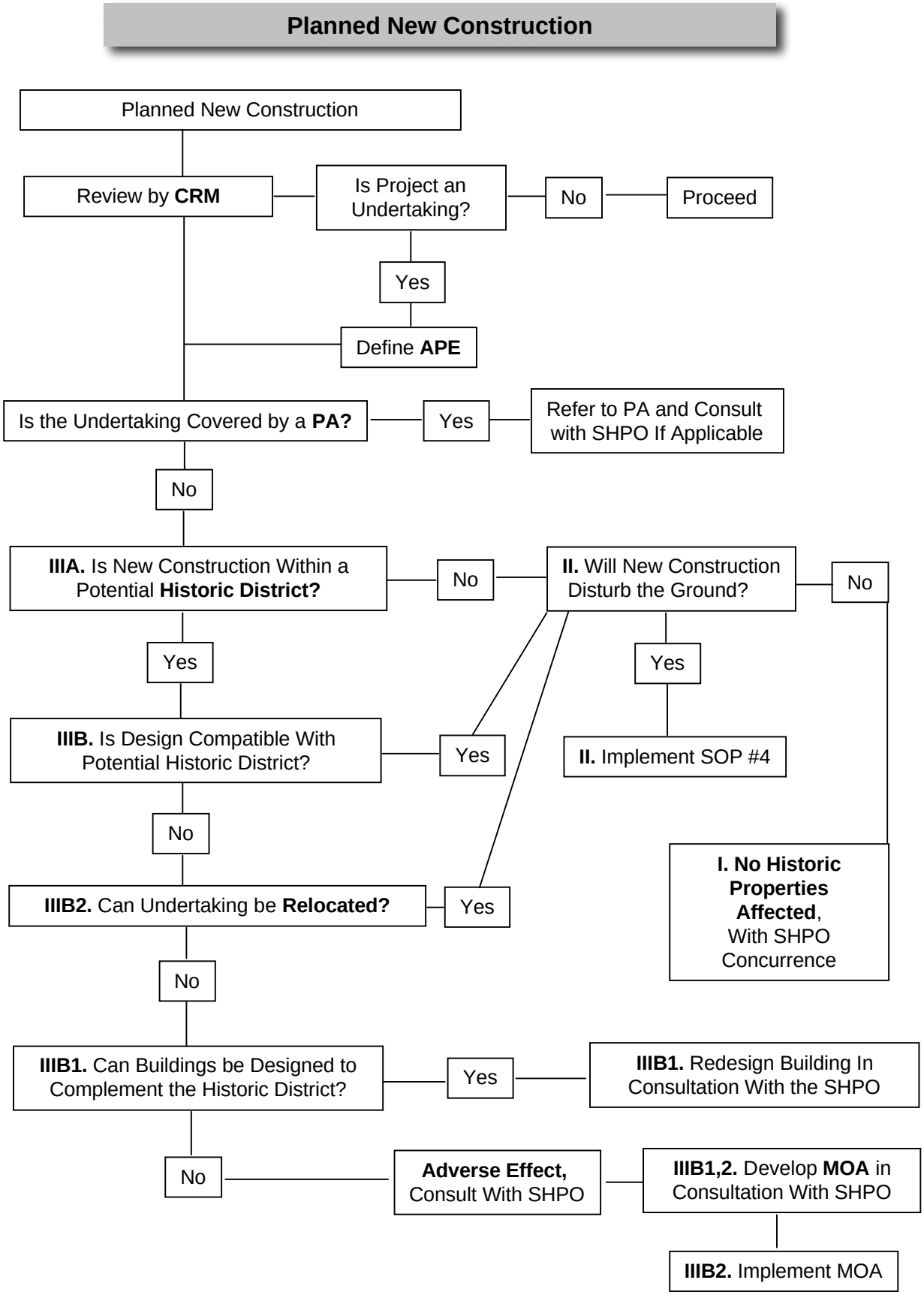
2. If the adverse effect on the historic district cannot be avoided through the above procedures, the Army shall implement one of the following alternative actions, depending on the urgency of the undertaking being planned.

a. The Army may redesign the project to avoid adverse effect.

b. The Army may proceed with a mitigation plan under an MOA with the SHPO. The MOA shall specify the procedures and parameters required to mitigate the adverse impact of the project.

c. The Army may request comments from the ACHP and may develop and implement actions that take into account the effects of the undertaking and the comments of both the SHPO and the ACHP. If the SHPO and the ACHP both indicate that the effects of the undertaking on the historic district are serious, then the Army shall make reasonable efforts to minimize adverse effect to the district until the Section 106 process is completed.

Figure 2.4 Standard Operating Procedure #3, Planned New Construction Undertaking



STANDARD OPERATING PROCEDURE No. 4:

Assessing the Effects of and Mitigating Adverse Effects Resulting from Ground-Disturbing Undertakings

Every undertaking that disturbs the ground surface has the potential to adversely affect known archeological deposits. In compliance with Section 106 of the NRHP, as well as NEPA, NAGPRA, AIRFA, ARPA, and AR 200-1, this SOP outlines the policies and procedures to be followed when planning such undertakings. Figure 2.5 summarizes the compliance process.

Applicable Laws/Regulations

- National Historic Preservation Act
- National Environmental Policy Act
- Native American Graves Protection and Repatriation Act
- Army Regulation 200-1
- American Indian Religious Freedom Act
- Archeological Resources Protection Act

Policy

- The avoidance or mitigation of adverse impacts to NRHP-eligible sites shall be proactively incorporated into the design and planning process, rather than deferred until archeological deposits may be discovered during actual construction.

- All machine-aided excavations or other earth-moving projects shall be designed to avoid damage to archeological sites or other historic properties that may be eligible for inclusion on the NRHP.

- Until such time as the SHPO has determined an archeological site to be ineligible, all known sites will be treated as potentially eligible for purposes of Section 106 and protected from impacts.

Procedure

All planned construction projects that may result in disturbance to the ground surface shall be reviewed by the CRM. To ensure compliance with Section 106 of the NHPA, as well as NEPA, NAGPRA, AIRFA, ARPA, and AR 200-1, the CRM shall consult with the Iowa SHPO regarding the proposed undertaking; otherwise, the following procedures should be followed.

I. If the proposed undertaking is listed as of no effect, then the CRM will consult with SHPO and the undertaking may proceed.

II. If the proposed undertaking's effect is not known, then the CRM will consult maps to determine whether the Area of Potential Effect (APE) has been archeologically inventoried and accepted by SHPO.

A. Appropriate documentation may be necessary depending on whether the undertaking is initiated internally by IAAAP or by external entities. Such documentation may include a Report of Availability (ROA), if initiated by external entities, with the signature of the Commanding Officer, NEPA documentation, Record of Environmental Consideration (REC), Environmental Assessment (EA), easement permits, Iowa SHPO coordination, and ACHP coordination (if NRHP eligibility pertains).

B. If an archeological inventory has not been completed and accepted by the SHPO for the APE, the CRM shall ensure that an inventory is completed by professional archeologists and accepted by the SHPO, as provided in SOP #8. Further planning of the undertaking may proceed with the understanding that the discovery of eligible archeological sites may require Section 106 consultation.

C. If an archeological inventory has been completed and accepted by the SHPO for the APE, the CRM shall examine archeological maps and records to determine whether the undertaking will affect a known archeological site.

1. If no archeological site has been recorded within the APE, or if all archeological sites which may be affected by the undertaking have been determined by the SHPO to be ineligible for inclusion on the NRHP, then the CRM may allow the excavation to proceed without further action, except as provided for under SOP #5.

2. If, in the opinion of either the Army or the SHPO, the existing information for any site is deemed insufficient to make a determination of eligibility, then the Army, in coordination with the SHPO, will develop a testing plan. Excavation and other disturbance in the vicinity of the site will be suspended until an agreed testing procedure has been carried out and sufficient data have been gathered to allow a determination of eligibility.

3. If any archeological sites that may be affected by the undertaking have been determined by the SHPO to be eligible for inclusion on the NRHP, then the CRM shall coordinate with appropriate entities, to determine if the undertaking can be redesigned to avoid adverse impact to historic properties.

a. If the undertaking can be redesigned to avoid adverse impacts, the CRM may allow the undertaking to proceed after consultation with SHPO and as provided for under SOP #5.

b. If the undertaking cannot be redesigned, the Army shall implement one of the following alternative actions, depending on the urgency of the undertaking being planned.

(1) The Army may relocate the project to avoid adverse effect. New locations shall also be inventoried and tested for eligible properties under SOP #4.

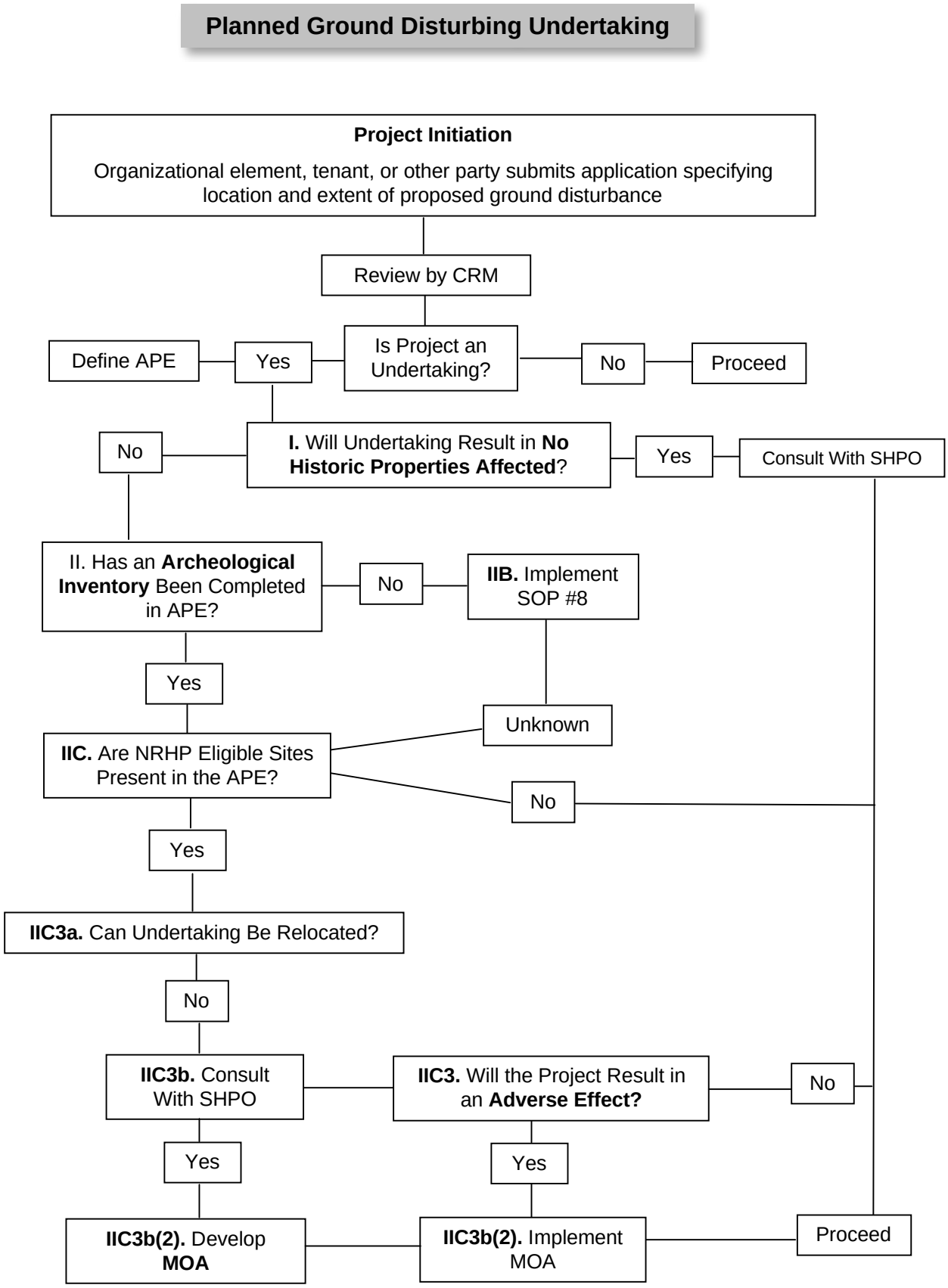
(2) The Army may proceed with a data recovery plan in consultation with the SHPO, which may be in the form of an MOA or MOU. The agreement shall specify the scope and level of effort of data recovery required to mitigate the adverse impact of the project on the site in question.

(3) The Army may proceed with a data recovery plan without negotiating an MOA when data recovery is expected to be limited, straightforward and amenable to informal coordination among the Army, the SHPO, and the Principal Investigator responsible for the data recovery effort.

c. The Army may request comments from the ACHP and may develop and implement actions that take into account the effects of the undertaking and the comments of both the SHPO and the ACHP. If the SHPO and the ACHP both indicate that the property is significant and the effects of the undertaking on the property are serious, then the Army shall make reasonable efforts to minimize harm to the property until the Section 106 process is completed.

(1) When the recovery of Native American human remains or funerary objects is deemed likely, the Army may initiate excavation in compliance with NAGPRA under SOP #7, with the understanding that not all human remains, cemeteries, etc., are NRHP properties. Such excavations shall be coordinated with the SHPO and with interested Native American tribal groups if Native American remains are found.

Figure 2.5 Standard Operating Procedure #4, Planned Ground-Disturbing Undertaking



STANDARD OPERATING PROCEDURE No. 5:

Responding to the Emergency Discovery of Archeological Deposits

Regardless of whether or not a surface inventory has been completed, and regardless of whether or not a planned undertaking has been assessed for its effect on known historic properties, every undertaking that disturbs the ground surface has the potential for the discovery of buried and previously unknown archeological deposits. This SOP outlines the policies and procedures to be followed in such cases. Figure 2.6 summarizes the compliance process.

Applicable Laws/Regulations

- National Historic Preservation Act
- National Environmental Policy Act
- Native American Graves Protection and Repatriation Act
- Army Regulation 200-1

Policy

- Archeological deposits that are newly discovered during the construction of any undertaking shall be evaluated for their NRHP eligibility.
- Until the SHPO has concurred with IAAAP's determination that an archeological site is ineligible, all known sites will be treated as potentially eligible for the purposes of Section 106 and protected from impacts.
- Nothing in Section 106 or other federal regulations requires the Army to stop work on an undertaking. However, if the SHPO indicates that the property is significant and the effects of the undertaking on the property are serious, then the Army shall make reasonable efforts to minimize harm to the property until the Section 106 process is completed.

Procedure

When notified of the possible discovery of unexpected buried sites, the CRM will either contact the SHPO for a site visit to determine if the remains are cultural, or arrange to have a professional archeologist visit the excavation as soon as possible to evaluate the recovered material and any *in situ* deposits.

I. If fossils, natural stones, or concretions, or other such items that are sometimes mistaken for archeological materials are recovered, then the CRM may allow the excavation to proceed without further action.

II. If, upon examination, the recovered materials are clearly of human origin, the CRM must protect the site and contact the SHPO. A qualified archeologist must make a field evaluation of the primary context of the deposit and its probable age and significance, record the findings in writing, and document the materials with photographs and drawings as warranted.

A. If disturbances to the deposit have been slight and the excavation can be relocated to avoid the buried site, the CRM shall file site forms with the SHPO in a routine manner, having avoided adverse impact through relocation of the excavation.

B. If the excavation cannot be relocated, the CRM shall telephone the office of the SHPO to report the discovery and initiate emergency consultation.

1. If both the SHPO (or SHPO's representative) and the Army concur that the deposits are ineligible for inclusion on the NRHP, then the Army will prepare a memorandum for record to be included in the site record. The Army may allow the excavation to proceed and shall advise the excavation foreperson(s) of the possibility of additional discoveries, which would require immediate notification of the CRM.

2. If, in the opinion of either the Army or the SHPO, the existing information is deemed insufficient to make a determination of eligibility, then an emergency survey plan will be developed by the Army in coordination with the SHPO. Further excavation in the vicinity of the site will be suspended until an agreed testing procedure has been carried out and sufficient data have been gathered to allow a determination of eligibility.

a. If the SHPO and the Army agree after testing that the site is ineligible for inclusion on the NRHP, then work on the project may resume.

b. If the site appears to be eligible for inclusion on the NRHP, or if the Army and the SHPO cannot agree on the question of eligibility, then the Army shall implement the following alternative actions, depending on the urgency of the action being delayed by the discovery of cultural material.

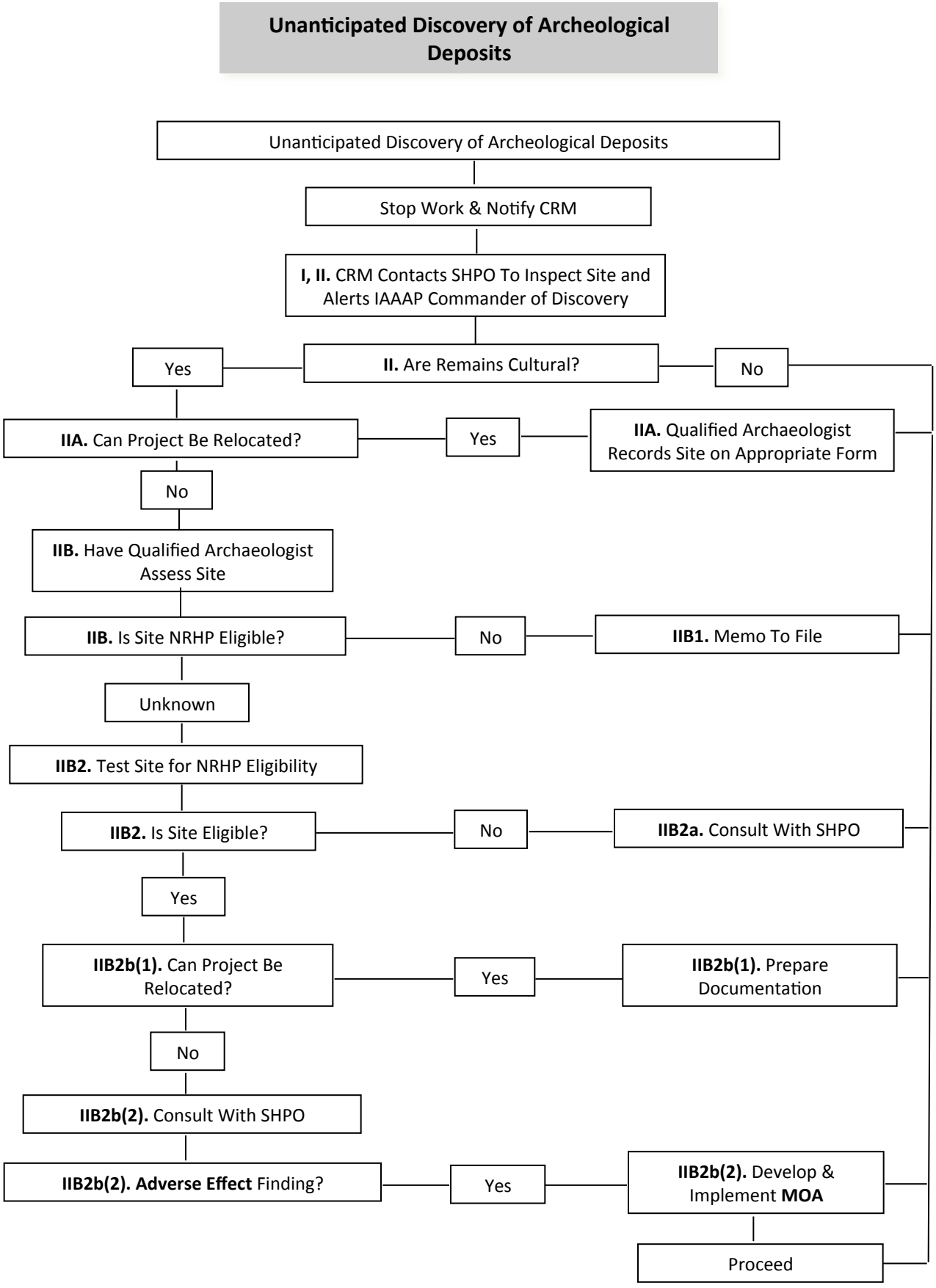
(1) The Army may relocate the project to avoid adverse effect.

(2) The Army may proceed with a data recovery plan under an MOA with the ACHP and the SHPO. The MOA shall specify the scope and level of effort of data recovery required to mitigate the adverse impact of the project on the site in question.

(3) The Army may request comments from the ACHP and may develop and implement actions that take into account the effects of the undertaking and the comments of both the SHPO and the ACHP. Interim comments must be provided to the Army within 48 hours and final comments within 30 days.

C. If at any time human remains, funerary objects, or Native American sacred objects are discovered, the CRM will ensure that the provisions of SOP #7 are implemented.

Figure 2.6 Standard Operating Procedure #5, Unanticipated Discovery of Archeological Deposit



STANDARD OPERATING PROCEDURE No. 6:

ARPA Compliance and Preventing Vandalism to Archeological Sites

The Archeological Resource Protection Act of 1979 makes it a felony for persons to excavate, remove, damage, or otherwise deface any archeological resources or paleontological remains located on federal lands. Exceptions to this law require a specific federal permit. The USACE issues permits for ARPA-related work on military-controlled lands. This SOP implements the law and the implementing regulations issued by the DOD (32 CFR Part 229). Figure 2.7 summarizes the compliance process.

Applicable Laws/Regulations

- Archeological Resource Protection Act
- Army Regulation 200-1

Policy

- The excavation or removal of archeological artifacts or paleontological remains (if found in an archeological context) is prohibited, except as conducted under a valid permit (such as mitigation program conducted under the supervision of a professional archeologist).
- The Post Provost Marshall will vigorously enforce the law prohibiting vandalism of archeological sites.
- The CRM will proactively preserve and protect all known archeological sites.

Procedure

I. An ARPA permit is not required for excavation, survey, etc., in direct support of mission requirements or for activities that are conducted exclusively for purposes other than the excavation and/or removal of archeological or paleontological remains (if found in an archeological context) (e.g., excavation of a building foundation), even when such activities may result in the disturbance of such remains. However, in such cases, IAAAP must comply with the requirements for Section 106 consultation.

II. Applications for ARPA permits must be submitted to IAAAP CRM.

   A. Applications must include a clearly written proposal that documents the information required under 32 CFR 229.6 and 32 CFR 229.8. Applicants must be in accordance with Engineer Regulation (ER) 405-1-12 and AR 405-80. IAAAP must prepare a Report of Availability (ROA) with the signature of the Commanding Officer. Included must be appropriate attachments (NEPA documentation, [Record of Environmental Consideration (REC), Environmental Assessment (EA), EIS], preliminary assessment screening [PAS], hold harmless agreement, Iowa SHPO coordination, and ACHP coordination [if NRHP eligibility pertains]).

B. Applications will be forwarded to the Rock Island District, USACE. Technical review of the application must be conducted by a qualified archeologist appointed by the District Commander. The District Real Estate Office is responsible for coordination and issuance of permits. Copies of approved permits will be provided to the IAAAP CRM.

C. A permit may be denied for reasons of technical inadequacy or incompatibility with military programs.

1. The applicant must be advised of the reason for the denial.

2. If the denial is for technical reasons, the applicant must be advised of their right to resubmit the application.

E. The CRM shall monitor work conducted under ARPA permits to ensure compliance with the terms of the permit.

1. A permit may be revoked if it is determined:

a. The applicant has not complied with the terms of the permit;

b. The applicant has misrepresented the work to be accomplished;

c. Continuance of the work is a hazard to public health or safety; or

d. Continuation of the work impairs any military function.

2. Appeals will be forwarded to the Commander for review by the CRM. The Determination of Appeal will be signed by the Commander.

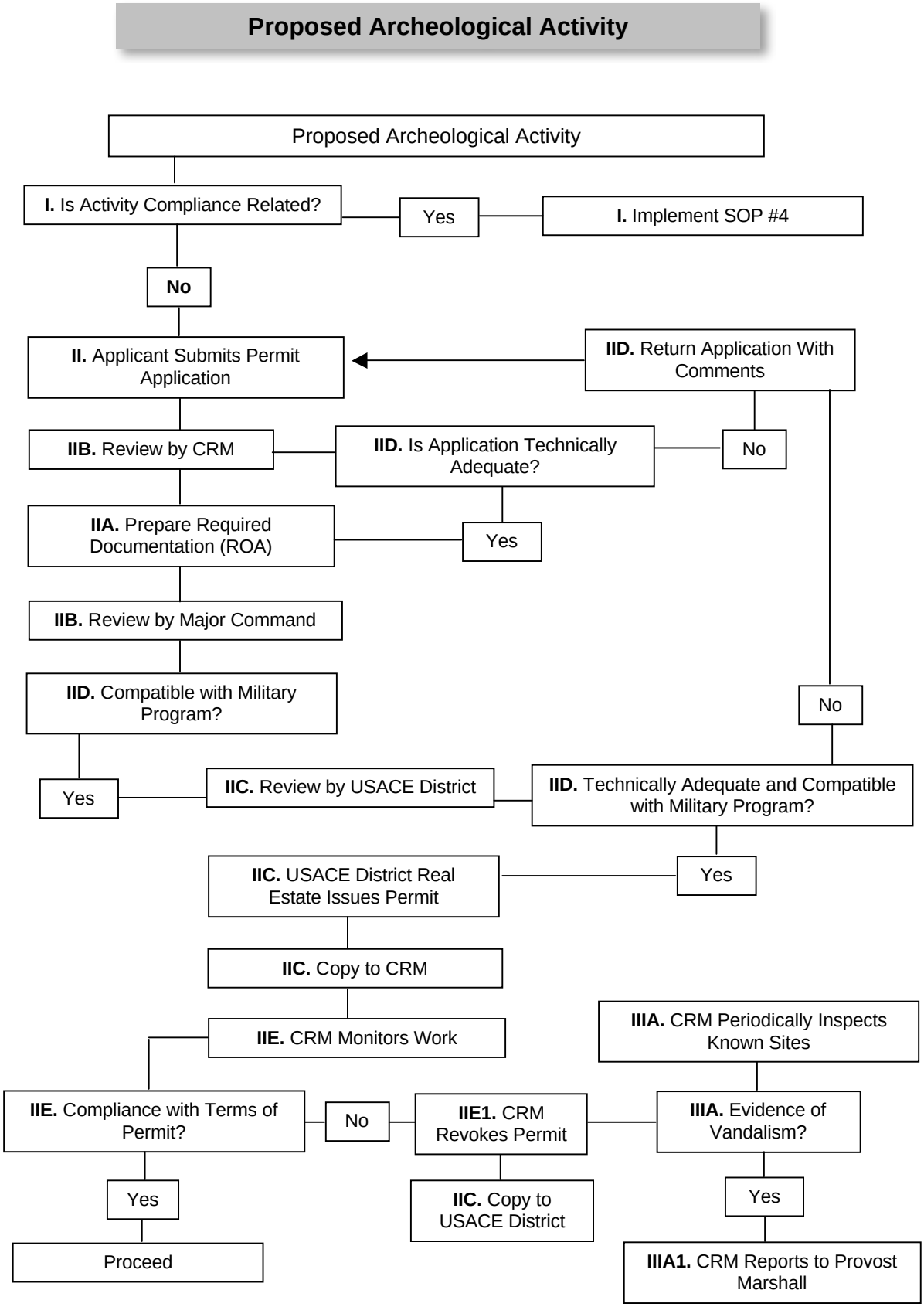
III. IAAAP shall proactively protect and preserve archeological sites.

A. The CRM will periodically monitor the condition of known archeological sites for evidence of vandalism.

1. ARPA violations will be reported to the Post Provost Marshall for investigation and prosecution.

IV. The activities, status, and results of all compliance actions taken under this SOP will be reported annually as outlined in SOP #9.

Figure 2.7 Standard Operating Procedure #6, Proposed Archeological Activity



STANDARD OPERATING PROCEDURE No. 7:

Treating Human Remains and Funerary/Sacred Objects

The Native American Graves Protection and Repatriation Act requires the inventory of human remains and funerary and sacred objects recovered from federal lands which may be subject to claim by Native American tribal groups and the active consultation with such groups to determine the disposition of such remains and objects. No such remains or objects from IAAAP are currently known to exist. This SOP outlines the policies and procedures to be followed to ensure future compliance. Figure 2.8 summarizes the compliance process.

Applicable Laws/Regulations

- Native American Graves Protection and Repatriation Act
- American Indian Religious Freedom Act
- Army Regulation 200-1

Policy

- No Native American human remains, funerary objects, or sacred objects from IAAAP will be knowingly kept in government possession without initiating preparation of an inventory and initiating consultation.
- Consultation regarding the disposition of Native American human remains, funerary objects, or sacred objects shall be initiated as soon as feasible.

Procedure

The CRM will review, in advance, all archeological permits, research designs, and scopes of work to ensure that archeological investigations at IAAAP comply with NAGPRA requirements and the implementing regulations (43 CFR Part 10).

I. The CRM will review all records to determine whether any human remains, funerary objects, or sacred objects originating from IAAAP are known to exist.

   A. If no such objects are found, no consultation is required.

   B. If all such objects have been inventoried and appropriate consultation has been initiated by IAAAP or its agent, then no further action is necessary.

   C. If any such objects are known to be uninventoried, the CRM will prepare an inventory of all such objects and will initiate consultation procedures with the appropriate Native American groups (see Appendix B) and with any other tribes as may be recognized under NAGPRA definitions. Information on additional tribes that may be recognized in the future is available from the Archeological Assistance Division, NPS, Box 37127, Washington, D.C., 20013; telephone (202) 343-4101; facsimile (202) 523-1547.

II. If human remains or artifacts not currently in government possession, but suspected to be from IAAAP are returned to the government, the CRM will arrange to have a professional archeologist examine and evaluate them.

A. If the remains are not of human origin, then no further action by the CRM is necessary.

B. If the remains are not of Native American origin, then they will be treated as stipulated under SOP #5.

C. If the remains are of Native American origin, then the CRM will prepare an inventory of the remains and initiate consultation procedures with the appropriate Native American tribes (see Appendix B), and with other tribes as may be recognized under NAGPRA definitions.

III. If human remains are discovered during the course of any undertaking, the following procedures will apply.

A. Work will immediately cease in the vicinity of the human remains.

B. The site supervisor will immediately notify the Post Provost Marshall and the CRM.

1. If the Post Provost Marshall, or his operative, determines that the remains are of recent origin, then no further action by the CRM is necessary.

2. If the remains are not recent, the CRM will arrange to have a professional archeologist visit the site in a timely manner to examine and evaluate the recovered material.

a. If the remains are not of human origin, then no further action is necessary by the CRM and the undertaking may proceed.

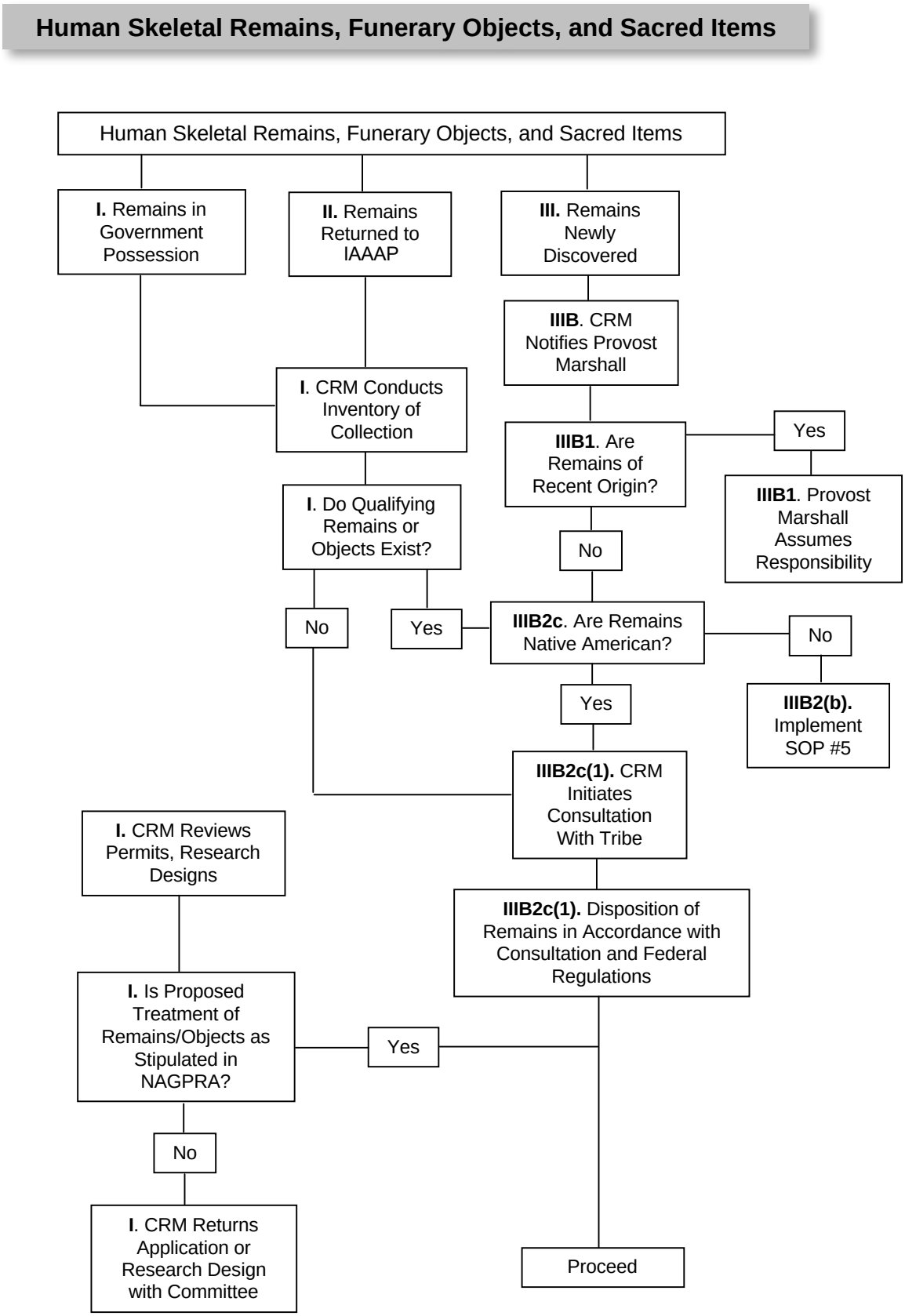
b. If the remains are not of Native American origin, then the site will be treated as stipulated under SOP #4 and #5; not all human remains, cemeteries, etc., however, are NRHP properties.

c. If the remains are of Native American origin, then further work in the vicinity will be suspended for 30 days to allow for consultation, as required by NAGPRA. If any photographs are taken of the undertaking, only general photographs of the site area are to be taken. Prior to removal of any remains, the CRM will prepare an inventory of the remains and will immediately initiate emergency consultation procedures with the appropriate Native American tribes (see Appendix B) and with other tribes as may be recognized under NAGPRA definitions. Otherwise, the CRM will cause the site to be treated as stipulated under SOP #4.

(1) If consultation allows the remains to be removed, then the CRM will cause the remains to be treated and disposed of in accordance with the consultation.

(2) Notwithstanding the results of consultation, the CRM will cause the site to be treated as stipulated under SOP #4.

Figure 2.8 Standard Operating Procedure #7, Human Skeletal Remains, Funerary Objects, and Sacred Items



STANDARD OPERATING PROCEDURE No. 8:

Inventorying and Identifying Historic Properties and Nominating These to the National Register of Historic Places

Section 110 of the NHPA directs federal agencies to locate, inventory, and nominate all potentially eligible sites, buildings, districts, and objects under their control to the Secretary of the Interior for listing on the NRHP. Current HQDA policy, however, is to nominate only those historic properties that are exceptionally significant. This SOP implements the law and the regulations. Figure 2.9 summarizes the compliance process.

Applicable Laws/Regulations

- National Historic Preservation Act
- Army Regulation 200-1

Policy

- IAAAP will establish a program to inventory and evaluate historic properties that are potentially eligible for listing on the NRHP.
- All inventory, evaluation, and nomination activities shall be conducted by persons meeting the Secretary of the Interior's guidelines for professional qualifications (36 CFR 61).
- Exceptionally significant eligible historic properties will be nominated to the Keeper of the Register through the staffing procedures found in AR 200-1, as personnel and budgeting constraints permit.
- Policy on Nomination of Historic Properties to the National Register of Historic Places (AR 200-1 states: "Nominate to the NRHP only those properties that the Army plans to transfer out of Federal management through privatization efforts. Nominate other properties only when justifies by exceptional circumstances."

Procedure

The CRM shall annually review the status of inventory, testing, and nomination, and shall develop priorities for these programs based on integration with Section 106 responsibilities and funding availability.

I. Archeological inventories shall be conducted under a research design and shall be designed as a good faith effort to locate all cultural resources.

A. The intensity and tactics of survey shall vary by landform and potential for intact buried deposits but, in every case, shall meet the standards stipulated by the Iowa State Historic Preservation Office.

    1. In areas designated by this ICRMP as previously disturbed having Unexploded ordnance (UXO) or buried hazardous waste, or in other areas so designated by documents on file at IAAAP, no subsurface testing is indicated, except as may be agreed upon during consultation with the CRM and the SHPO.

B. Shovel tests shall be 30 centimeters in diameter and shall be dug to culturally sterile soils or a minimum of 50 centimeters below ground surface. All soil shall be screened through mesh no larger than 1/4 inch. Archeological inventories shall be professionally documented.

    1. All tests will be documented and plotted on maps.

    2. All sites will be documented, photographed, and plotted on maps using forms that meet or exceed the data content required by the Iowa SHPO.

        a. Trinomial site numbers shall be obtained from Site Records Coordinator at the Office of the State Archeologist, Iowa City, Iowa.

        b. Copies of completed site forms and other primary documentation shall be submitted to the SHPO.

    3. All surface collections and subsurface artifacts, historic and prehistoric recovered from testing will be collected for analysis and curation.

    4. A technical report conforming to the Secretary of the Interior's standards and guidelines and to those of the Iowa State Historic Preservation Office will be prepared and submitted for SHPO review pursuant to SOP #9.

C. Each archeological site shall be evaluated with regards to its eligibility for inclusion on the NRHP, according to the significance criteria outlined in Part 3 of this ICRMP.

    1. Sites that meet or exceed the significance standards will be recommended as eligible for inclusion.

    2. Sites that do not meet the significance standards will be recommended as ineligible for inclusion.

    3. Sites that cannot be fully evaluated because of insufficient information will be recommended for further investigation and eligibility testing.

II. Architectural inventories shall be designed to ensure collection of sufficient architectural and historical information with which to make a determination of eligibility for inclusion on the NRHP, according to the significance criteria outlined in Part 3 of this ICRMP.

    A. Buildings and structures that meet or exceed the significance standards will be recommended as eligible for inclusion.

B. Buildings and structures that do not meet the significance standards will be recommended as ineligible for inclusion.

C. A technical report conforming to the Secretary of the Interior's standards and guidelines will be prepared and submitted for SHPO review pursuant to SOP #9.

III. Cultural resources that are not fully evaluated at the conclusion of an inventory shall be further investigated to conclusively determine their eligibility. Archeological significance testing shall be conducted under a scientific research design and shall be designed to fully evaluate 100% of known sites.

A. Subsurface excavation shall be conducted to determine horizontal and vertical site boundaries, to assess integrity of deposits, and to recover a representative sample of cultural remains.

1. Mechanical excavations may be used to assess site stratigraphy and limits.

2. Manual excavations shall be in arbitrary 10-centimeter levels, unless finer natural or cultural stratigraphy can be defined.

3. Manually excavated fill shall be screened through mesh of 1/4 inch or less.

4. All recovered artifacts will be collected for analysis and curation. As defined in Appendix A, an artifact is an object used or manufactured by humans.

5. Photographs and drawn profiles of all excavation units and exposures shall be made in the field.

6. In areas designated by this ICRMP as previously disturbed having UXO or buried hazardous waste, or in other areas so designated by documents on file at IAAAP, no subsurface testing is indicated, except as may be agreed upon during consultation with the CRM and the SHPO.

7. When it can confidently be determined that the site is eligible for inclusion on the NRHP, further testing will cease.

B. Each archeological site shall be evaluated with regards to its eligibility for inclusion on the NRHP, according to the significance criteria outlined in Part 3 of this ICRMP.

1. Sites that meet or exceed the significance standards will be recommended as eligible for inclusion.

2. Sites that do not meet the significance standards will be recommended as ineligible for inclusion.

C. A technical report conforming to the Secretary of the Interior's standards and guidelines and to those of the Iowa State Historic Preservation Office will be prepared and submitted for SHPO review pursuant to SOP #9.

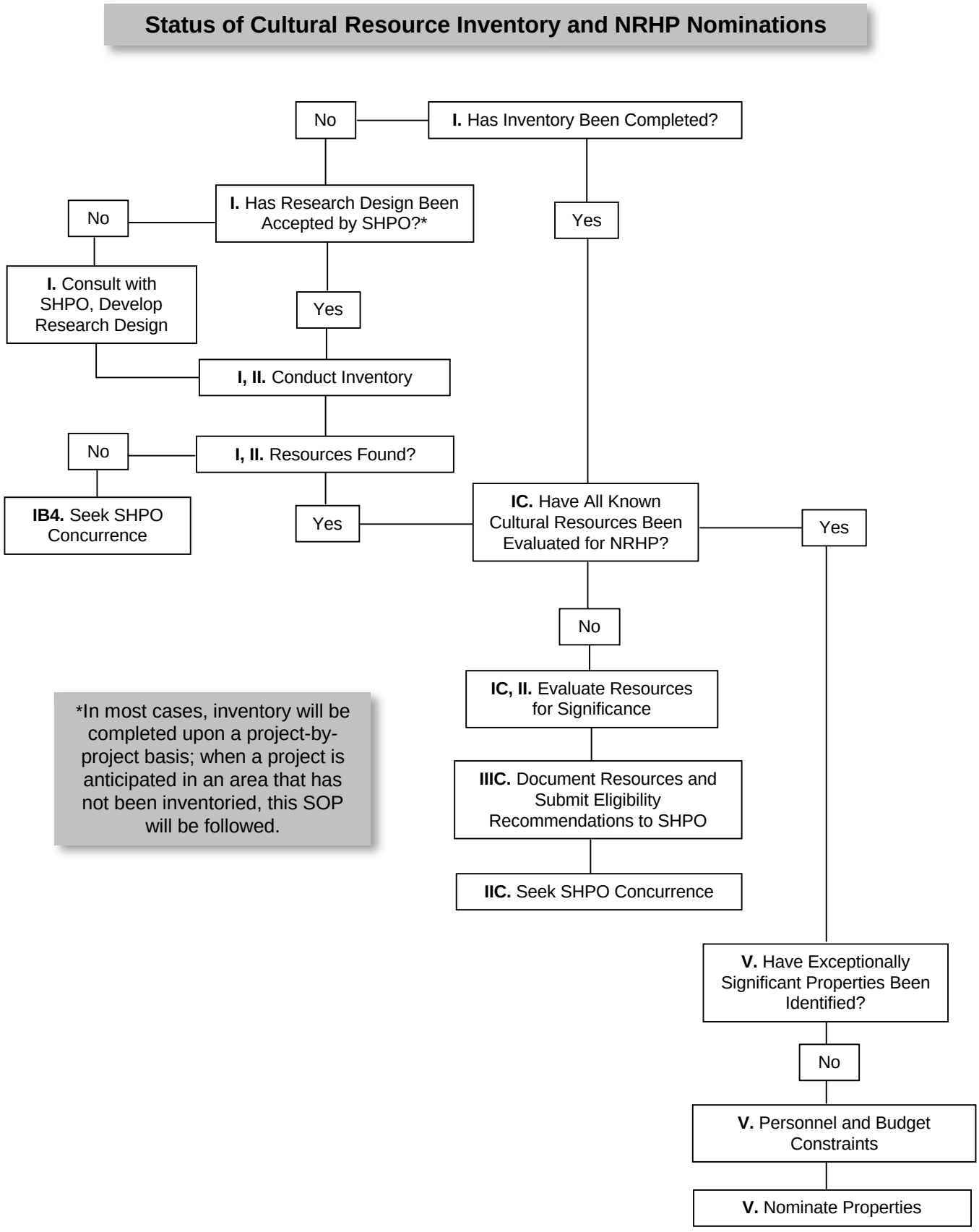
IV. For each cultural resource inventoried and evaluated, the CRM shall seek the concurrence of the SHPO.

V. For each "significant" historic property recommended and concurred by SHPO as eligible for inclusion on the NRHP, the CRM will ensure that NRHP nomination forms are prepared and submitted to the Keeper of the Register through the staffing procedures found in AR 200-1.

   A. Nominations will follow the guidelines and format requirements specified in National Register Bulletin 16A - *Guidelines for Completing National Register of Historic Places Nomination Forms* (USDI 1991).

   B. All properties determined to be eligible for inclusion on the NRHP will be treated as if they are actually so listed, regardless of the status of the nomination procedure.

Figure 2.9 Standard Operating Procedure #8, Status of Cultural Resource Inventory and NRHP Nominations



STANDARD OPERATING PROCEDURE No. 9:

Monitoring Cultural Resource Compliance Activities and Reporting Compliance Status

Coordination and consultation with the Iowa SHPO and with others is a key aspect of Section 106 cultural resource compliance at IAAAP. Technical information regarding undertakings or cultural resources must be provided to the SHPO in a timely manner to prevent foreclosure of the SHPO opportunity to comment. Figure 2.10 summarizes the compliance process.

Applicable Laws/Regulations

- National Historic Preservation Act
- National Environmental Policy Act Archeological Resource Protection Act
- American Indian Religious Freedom Act
- Native American Graves Protection and Repatriation Act
- Executive Order 11593
- Army Regulation 200-1

Policy

- In requesting the SHPO consultation, IAAAP shall provide technical information regarding undertakings and cultural resources to the SHPO in a timely manner.
- The IAAAP CRM will routinely monitor the compliance of IAAAP with applicable cultural resource laws and regulations and shall regularly report the status of such compliance to the SHPO.
- When the Army, the SHPO, and/or the ACHP disagree about the recommendations for eligibility or any other portion of a compliance document, the Army shall take steps to ensure the protection and preservation of affected properties until the consultation process is complete.

Procedure

I. Contracted inventory, testing, and mitigation projects will be reported to the SHPO through the submission of a draft technical report. Survey and testing reports will contain recommendations of NRHP eligibility for all cultural resources.

   A. The confidentiality of all site locations will be preserved.

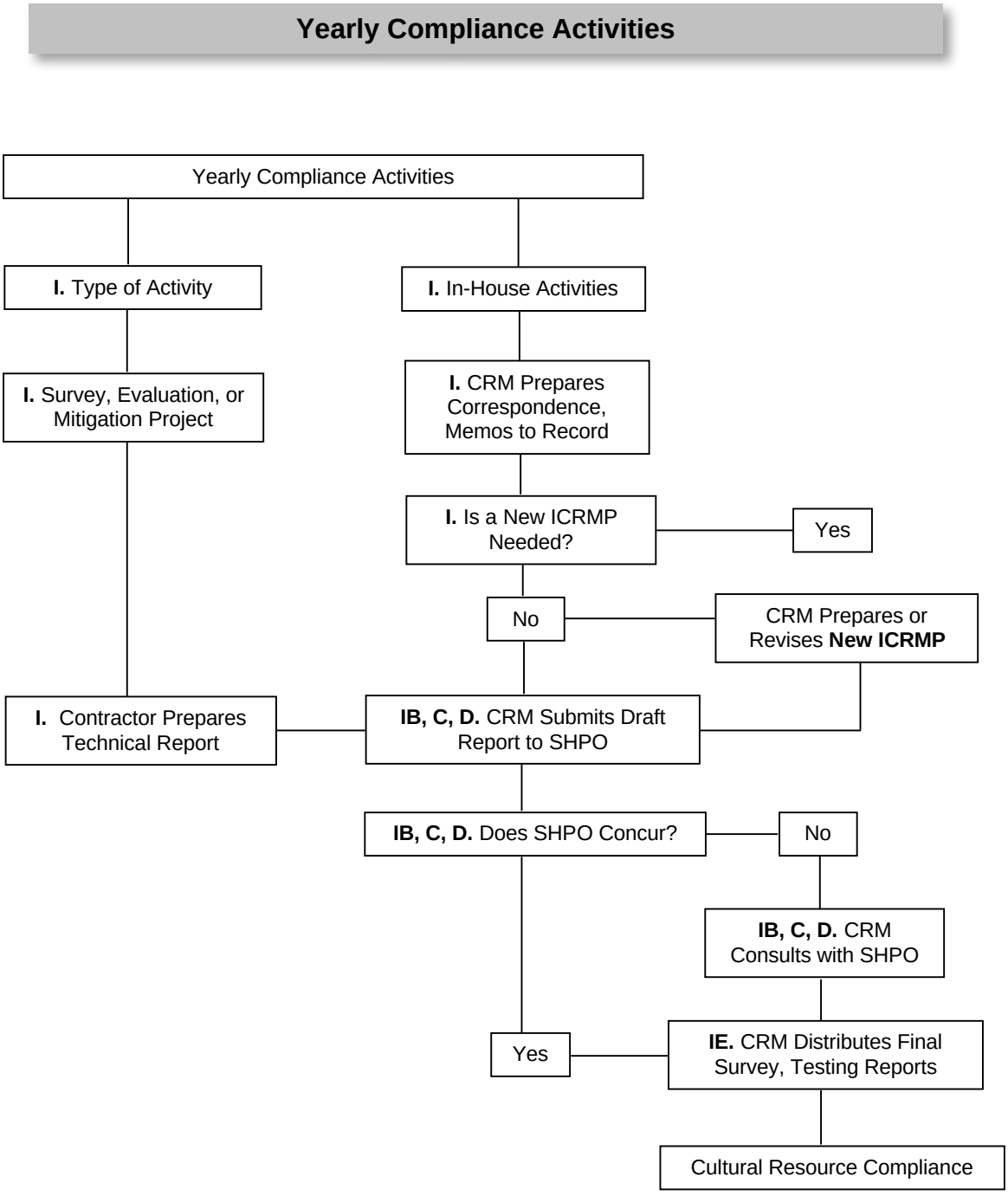
   B. Where the SHPO concurs with the recommendation of eligibility, the final report will reflect that concurrence. It should be noted that the federal agency (Army/IAAAP) makes the determination of NRHP eligibility or concurs with the report findings. Not all reports will include the SHPO's concurrence before they are final.

C. Where the SHPO does not concur with the recommendation, the Army will continue to protect sites until the provisions of SOP #8 have been implemented, and status of the site(s) has been determined as ineligible for the NRHP. When agreement cannot be reached, the procedures outlined in SOP #2 and/or SOP #4, as may be appropriate, will be implemented and the disagreement will be so noted in the final report.

D. In cases of actions under Section 106 of the NHPA, if there is no effect on the properties by the proposed undertaking, then the SHPO has 30 days from the receipt of the draft report for review and comment. In cases of actions under Section 106 of the NHPA, if there is no adverse effect on the properties by the proposed undertaking, then the SHPO and the ACHP each have 30 days from the receipt of the draft report for review and comment.

E. Final reports will be printed in sufficient quantities and shall be distributed to interested libraries, museums, institutions, organizations, and individuals to encourage research and scholarship.

Figure 2.10 Standard Operating Procedure #9, Yearly Compliance Activities



2.4 FIVE-YEAR PLAN

This section develops a five-year plan (FYs 2013-2018), including a description of planned undertakings, key compliance objectives, and the schedule of resources necessary to achieve them

2.4.1 Planned Undertakings

At the present time, there is no Master Plan for IAAAP. However, prioritization lists for planned demolitions and new projects are in place at IAAAP. Planned demolitions total 291 facilities. A total of 221 of the proposed demolitions have reached 50 years of age and are currently identified by IAAAP as ELPA, or "eligible for the purposes of a programmatic agreement." The other 70 proposed demolitions were constructed less than 50 years ago. The list, while extensive, is not a definite determination of what will be demolished, but prioritizes proposed demolitions that may take place in the next five years. Two program comments between DOD and ACHP implemented in 2006 address mitigation for such demolitions and other effects on eligible properties: World War II and Cold War Era (1939-1974) Ammunition Storage Facilities and World War II and Cold War Era (1939-1974) Army Ammunition Production Facilities and Plants.

Projects are also proposed at production Lines 2 and 3A, with the sewage treatment plant slated for replacement as well. Such construction projects will likely result in earthmoving and trenching, which could result in the damage or destruction of archeological sites. Thus, archeological survey and SHPO consultation should continue to take place with the implementation of such new projects.

Individual areas at IAAAP should be surveyed if any ground disturbing projects are anticipated on previously unsurveyed land. There are currently 228 archeological sites with unknown eligibility that will require further testing and coordination with the SHPO prior to any ground disturbing work taking place.

Table 2.3 includes a list of these projects in addition to ongoing management and maintenance undertakings.

2.4.2 Key Objectives

This ICRMP identifies five key objectives, some of which are necessary for compliance, and others that would enhance the day-to-day management capabilities of IAAAP cultural resource management.

The key objective necessary for compliance is to 1) review and update the ICRMP.

The key objectives that would enhance the day-to-day management of IAAAP are as follows:

1. Completion of the archeological inventory;
2. Completion of the architectural survey;
3. Significance testing of archeological sites having undetermined NRHP eligibility, if driven by a Section 106-required undertaking; and
4. Nomination of significant eligible properties to the NRHP.

Table 2.3 IAAAP Planned Projects as of FY12

Project	Associated Impacts on Cultural Resources	Legal Consideration	Relevant SOPs
New Construction			
Construction of ancillary facilities at production Lines 2 and 3A and replacement of sewage treatment plant	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 3, 4, 5, 7, and 9
Building Demolition			
291 buildings and structures currently described on a demolition priority list	Demolition of existing facilities and ground-disturbing activities	NHPA and NEPA	1, 2, 4, and 9
Pollution Control			
The testing and remediation of pollution, contaminated areas, hazardous waste, and landfills is an environmental priority at IAAAP and these undertakings will continue	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Forestry			
Site preparation	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Prescribed burning	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Harvesting of timber	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Landscape Management			
Row crops, hay, and cattle grazing	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Maintenance of grounds, including mowing and landscape plantings	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Planting, creation of diversion channels, and modification of slopes to control soil erosion	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9
Testing and Training			
IAAAP plans to continue all testing and training undertakings related to its military mission and those related to training of the Iowa National Guard. These undertakings will involve regular maintenance of the grounds.	Ground-disturbing activities	NHPA, NEPA, and possibly NAGPRA	1, 4, 5, 7, and 9

2.4.2.1 Review the Five-Year Real Property Master Plan

The mission at IAAAP is static. Therefore, there is no existing five-year Master Plan. If the mission at IAAAP is altered in the future, it is recommended that a five-year Master Plan be created and implemented.

2.4.2.2 Review and Update the ICRMP

The first objective of the ICRMP is reviewing and updating this ICRMP. Within five years, the mission of IAAAP and the nature of its undertakings may change. Cultural resource laws and regulations may change. It is possible that not all of the objectives were fully achieved. As a result of implementing objectives, new information about IAAAP's cultural resources may be available. In any event, a revised/updated ICRMP should review the nature of undertakings and should develop a set of subsequent objectives.

2.4.2.3 Completing the Archeological Inventory

The second objective of the ICRMP is the completion of the archeological inventory as ground-disturbing projects arise. There are currently 228 archeological sites with unknown eligibility that will require further testing and coordination with the SHPO prior to any ground disturbing work taking place.

A 1991 report outlining the reconnaissance survey by Augustana College in 1989-1990 identified 274 new archeological sites (Winham et al. 1991). Some sites identified in this report have been revisited since the initial recording, resulting in SHPO concurrence for sites on a case-by-case basis. SHPO concurrence for all 274 archeological sites has not been identified, and these sites have not been evaluated for the NRHP. The current understanding between the CRM and SHPO is that only the agricultural crop fields were surveyed according to state guidelines during this study. Thus, ground-disturbing activities outside the production areas, storage areas, railroad right of way, road right of way, and in some agricultural fields requires additional archeological survey work. At the present time, some projects require additional survey work in disturbed areas or areas previously surveyed.

Inventory should be conducted in accordance with SOP No. 7. The goal of the inventory should be to find all surface and buried sites and, should any sites be discovered, to evaluate as many of these as possible (using inventory level tactics) with regards to their NRHP eligibility. If any sites cannot be fully assessed using shovel testing and other cost-effective survey techniques, they should be afforded protected status until their eligibility can be adequately determined using additional, more intensive testing tactics (under SOP No. 8).

Locational data for about 30 archeological sites on IAAAP was made available for the purposes of this ICRMP, but no record of survey, site location, or reporting of these sites has been made available to the IAAAP CRM. It is believed that the state of Iowa's online GIS archeological database, I-Sites, may have more complete and up-to-date information regarding archeological site locations. It is recommended that a paid subscription to the I-Sites database be made available to the IAAAP CRM for more complete access to mapping and data collection.

2.4.2.4 Significance Testing of Archeological Sites Having Undetermined NRHP Eligibility

Currently, 228 archeological sites at IAAAP have not been evaluated for NRHP eligibility. These sites have been recorded during surface survey but the inventory tactics used (such as limited shovel testing) were not able to determine key aspects of their data potential (for example, site occupation date, integrity). For Section 110 planning purposes, these archeological sites should be tested in accordance with SOP No. 8 so as to fully evaluate their NRHP eligibility. Full completion of this objective should be

in conjunction with ongoing Section 106 compliance activities and should be scheduled as funding permits. Presently, IAAAP plans to evaluate the sites on a case-by-case basis when an undertaking is proposed within the sites APE.

2.4.2.5 Complete the Architectural Survey

As buildings and structures become 50 years of age, survey and evaluation of those buildings should be conducted and coordinated with the SHPO. The Iowa SHPO has requested that IAAAP record all of the extant historic-era cemeteries on Iowa Site Inventory Forms and file them with the SHPO. Consideration should also be given to also recording the cemeteries as archeological sites with the Office of the State Archeologist.

2.4.2.6 Nominating Eligible Properties to the NRHP

As required by Section 110 of the NHPA and under SOP No. 8, the CRM should ensure that NRHP nomination forms are prepared and submitted to the Keeper of the Register. As stated in AR 200-1, formal nomination of historic properties to the Keeper of the NRHP for listing in the NRHP is not a high program priority. Formal nomination for listing in the National Register makes no difference in the way historic properties are managed, and diverts scarce resources away from other cultural resources management activities. The Army will formally nominate only those properties it intends to interpret, commemorate, or otherwise actively manage as sites of popular interest that are normally open to the general public. Nominations should follow the guidelines and format requirements specified in National Register Bulletin 16A-*Guidelines for Completing National Register of Historic Places Nomination Forms* (McClelland 1997).

2.4.3 Schedule for Implementation

As part of the CRM responsibilities, undertakings that disturb the ground surface (for example, new construction, building demolition, infrastructure projects, pollution control, forestry projects, landscape management, testing and training, and recreation) will need to be reviewed to ensure that the APE for each project has been archeologically surveyed and that no impacts will occur to unevaluated sites. If the area has not been inventoried, funds will need to be programmed for this activity. Consequently, if unavoidable impacts to unevaluated sites occur, funds will need to be programmed to ensure that the site is evaluated, and if the project cannot be relocated, funds will also need to be programmed to ensure that impacts to the site are mitigated through data recovery. Two Native American burial mounds have been identified at IAAAP. If undertakings that disturb the ground encounter human remains at these sites or sites thus far unknown, funds will need to be programmed to ensure early and often consultation with the appropriate Native American tribes.

The objectives of this ICRMP have been sequenced to allow IAAAP cultural resource management program to develop in a reasonable manner (see Table 2.4). To allow for the management of ongoing compliance programs and to allow for planning of future schedules and budgets, the overall 5-year schedule starts slowly. Several of the objectives will be completed as necessary or as funding is available. During every year of the plan, the CRM continues all routine management activities necessary for cultural resource compliance, including review of undertakings, consultation with the Iowa SHPO, update of the database, management of contracts, and preparation of compliance reports. As stated previously, some of these key objectives are necessary for cultural resource compliance while others would develop or enhance a functioning cultural resource program at IAAAP.

- **Year 1**. No objectives are planned during the first year of the plan.

- **Year 2**. During the second year of the plan, Objective No. 2 may occur if funding is available. Objective No. 3 may be required pending the location and outcome of future proposed undertakings.

- **Year 3**. During the third year of the plan, any archeological significance testing that might be required by new undertakings should continue. If any properties are determined eligible, Objective No. 5 should begin.

- **Year 4**. During the fourth year of the plan, Objective Nos. 2, 3, and/or 4 continue, as necessary.

- **Year 5**. During the final year of the five-year plan, all ongoing compliance objectives are continued, including testing programs (if required for Section 106 compliance), and nominations of exceptionally significant properties, if identified. Under Objective No. 1, all newly obtained information should be synthesized and incorporated into the development of an updated ICRMP.

Table 2.4 Schedule for Implementation of the Key Objectives

Objective	Priority	Description	Plan Year[2]					
			Year 1	Year 2	Year 3	Year 4	Year 5	Next 5-Year Plan
1	Essential for Compliance	Update the ICRMP		■				■
2	Best Management	Complete the archeological inventory		●	❍	❍	❍	■❍
3	Best Management	Complete the architectural survey		●	❍	❍	❍	❍
4	Best Management	Archeological significance testing		●	❍	❍	❍	❍
5	Best Management	Nominate eligible properties to NRHP				●	●	❍

[1] ■ = Ongoing compliance process or procedure
● = Primary objective
❍ = Finish objective, if not complete

2.4.4 Estimate of Resources Needed

This section includes the estimated staff and supplementary resources needed to implement this ICRMP.

2.4.4.1 Staff Resources

It is expected that, in addition to fulfilling regular and routine Section 106 compliance review, the CRM may be able to accomplish Objective No. 1 without the need for supplementary expertise. The remaining objectives should employ competent contractors.

2.4.4.2 Supplementary Resources

Supplementary expertise clearly will be necessary to begin Objectives No. 2 through 5. These are labor-intensive objectives and a sufficient number of personnel in these disciplines (archeology and

architectural history) is not available within the in-house staff of IAAAP. Such supplementary expertise must be procured through contract.

Completion of Objective No. 3 calls for the archeological inventory of the remaining unsurveyed land; this will occur only as projects arise.

Completion of Objective No. 4 calls for the archeological significance testing of known, but unevaluated, archeological sites.

Completion of Objective No. 5 calls for the significant eligible properties on IAAAP to be nominated to the NRHP. The process of nominating significant eligible properties is quite lengthy and complex and may require additional fieldwork to document eligibility.

2.5 PLAN SUMMARY

In summary, the ICRMP for IAAAP for FYs 2013 through 2018 calls for the following objectives for cultural resource compliance and to enhance ICAAP's cultural resource program.

1. **COMPLETE the Archeological Inventory**. IAAAP needs to complete the required inventory of cultural resources as funding is available. About 228 archeological sites need to be tested for NRHP eligibility, as necessary based on new undertakings.

2. **COMPLETE the Architectural Survey**. As buildings and structures become 50 years of age, survey and evaluation of those buildings should be conducted and coordinated with the SHPO. The Iowa SHPO has requested that IAAAP record all of the extant historic-era cemeteries on Iowa Site Inventory Forms and file them with the SHPO. Consideration should also be given to also recording the cemeteries as archeological sites with the Office of the State Archeologist.

3. **TEST Archeological Sites.** Significance testing of archeological sites having undetermined NRHP eligibility, if driven by a Section 106-required undertaking

4. **NOMINATE Eligible Properties**. IAAAP needs to begin the process of nominating its significant eligible properties to the NRHP, pending available funding.

5. **UPDATE the ICRMP**. IAAAP needs to integrate all work accomplished or not completed during the next five years for the next ICRMP.

The completion of these objectives will enhance IAAAP's cultural resource management program and will better enable the successful completion of the proposed undertakings listed in this ICRMP.

3.0 OVERVIEW OF IAAAP

This section presents an overview of IAAAP and is structured in six primary discussions:

- *A description of the installation* (see Section 3.1) summarizes its location, military mission, command structure, size, and tenant agencies.
- *An environmental overview* (see Section 3.2) presents key factors that are relevant to understanding the variety and distribution of cultural resources to be found on IAAAP, including its climate, geology, topography, soils, hydrology, and biology.
- *A description of undertakings* (see Section 3.3) reviews the variety of Federal actions at IAAAP that have the potential to affect cultural resources.
- *A review of current management practices* (see Section 3.4) summarizes the process by which cultural resources are currently being managed at IAAAP.
- *A historical narrative* (see *Section* 3.5) presents a concise synthesis of key points of the prehistory and history of the IAAAP and surrounding region from 10,000 Before Christianity (B.C.) until the end of the Cold War.
- *A review of Native American groups* (see Section 3.6) *summarizes* those tribes that have an interest in the prehistoric cultural resources of IAAAP.

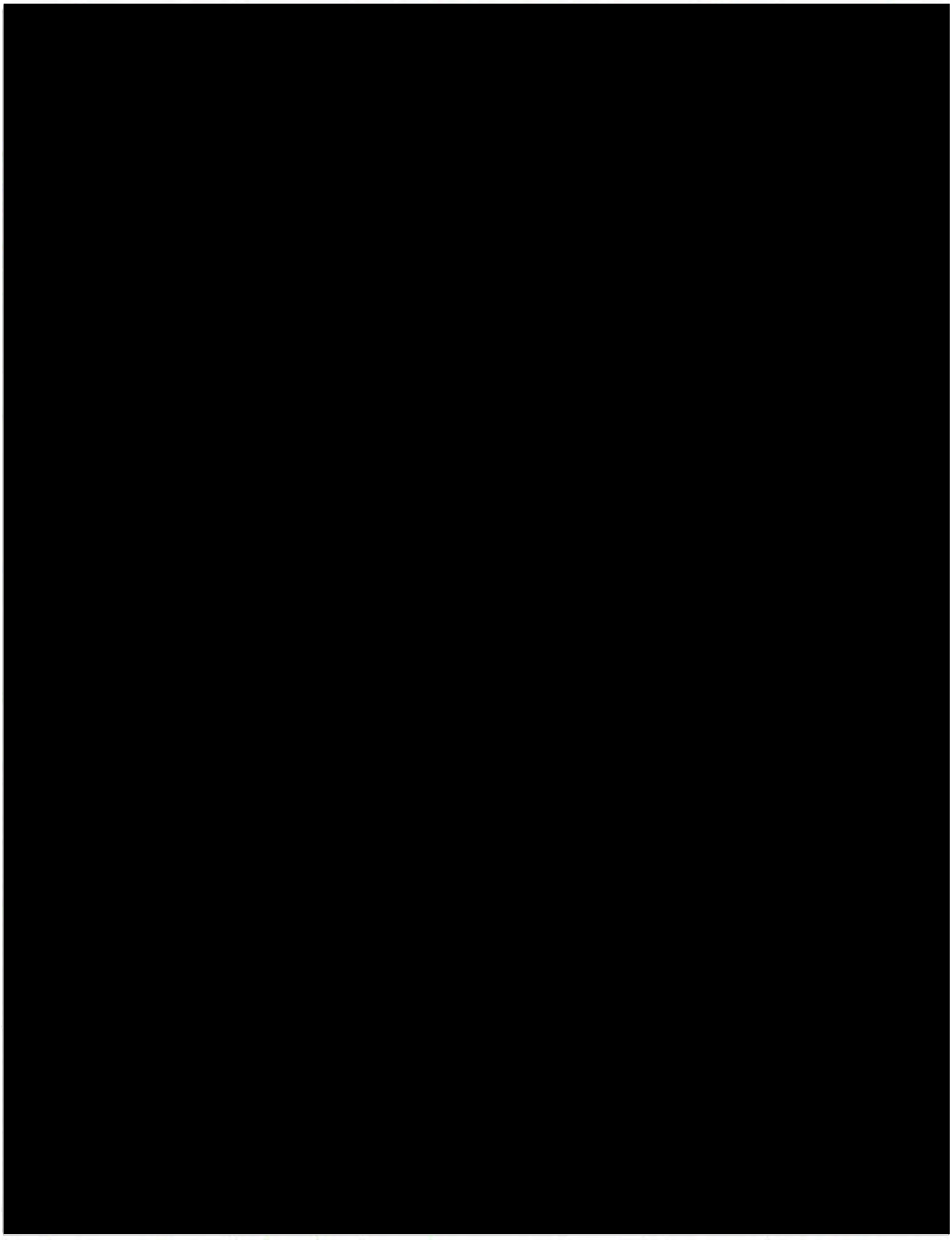
3.1 INSTALLATION DESCRIPTION

This section briefly describes the location, size, military mission, command structure, and tenant agencies of Iowa Army Ammunition Plant.

IAAAP is located in southeastern Iowa in Des Moines County (see Figures 3.1 and 3.2). Entry to IAAAP is located in Middletown, Iowa, which is situated west of the Mississippi River town of Burlington, Iowa. In 2010, Middletown had a population of 318, whereas the nearby towns of West Burlington and Burlington had population totals of 2,968 and 25,663, respectively. The total population of Des Moines County dropped from 42,351 in 2000 to 40,325 in 2010 (U.S. Census Bureau 2010).

As of 2012, IAAAP employed 23 Department of the Army civilians and one Commander. The small government staff of Army civilians, led by the only uniformed soldier on site, the Commander, provides oversight of the Operating Contractor at IAAAP. Due to its status as a Government-Owned, Contractor-Operated (GOCO) facility, full IAAAP employment statistics are considered proprietary and are therefore unavailable. One source, however, stated that nearly 900 personnel are employed at IAAAP (Joint Munitions Command of the U.S. Army 2012; Global Security 2011). With a present contract from 2009 to 2018, the current Operating Contractor is American Ordnance LLC, which is owned by Day & Zimmerman and General Dynamics Ordnance Systems.

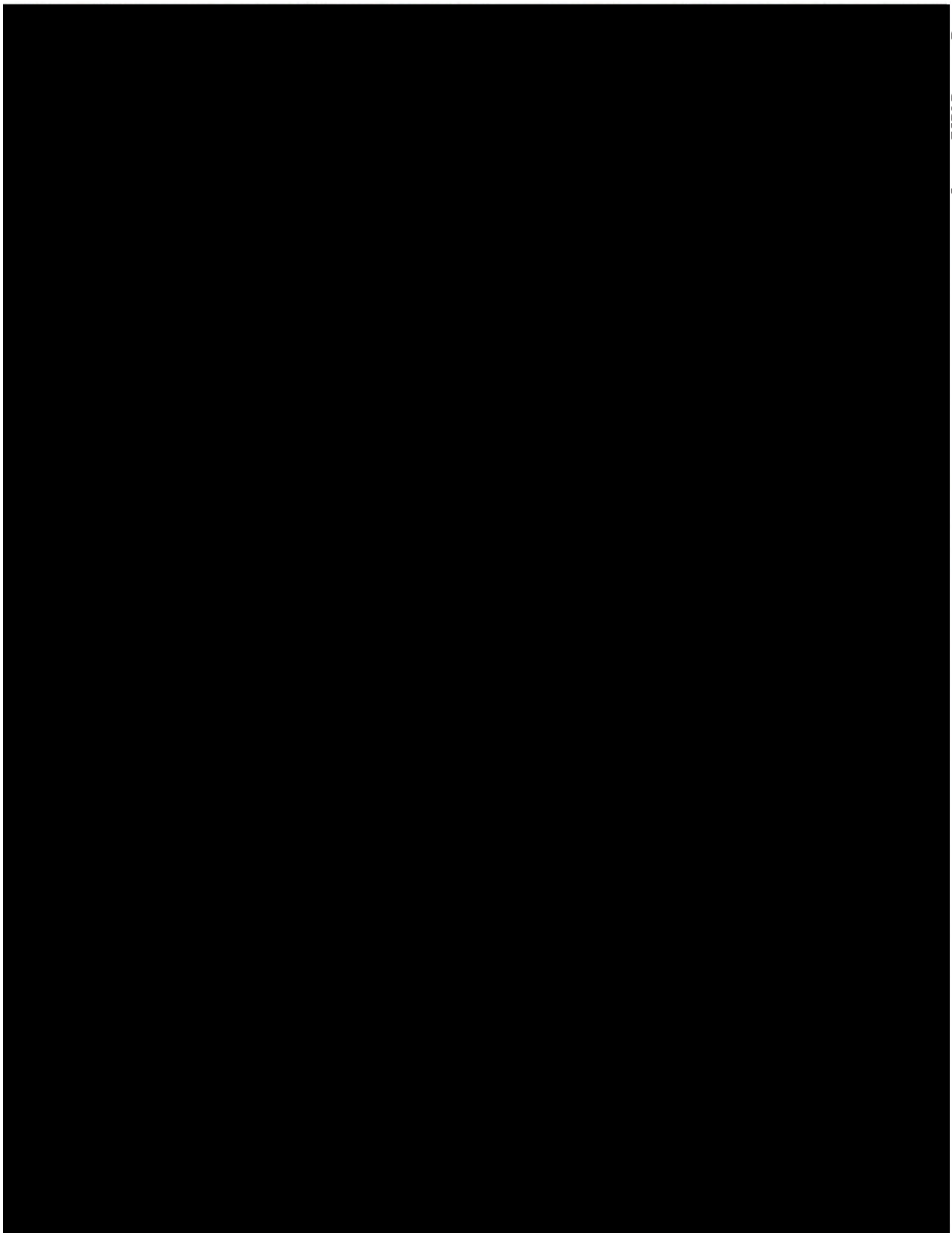
Within the 1,289 facilities on site, there is more than 4.3 million square feet of storage. The 19,192-acre plant holds 142 miles of roads and 102 miles of railroads (Joint Munitions Command of the U.S. Army 2012).



Source: ESRI Resource Data

Figure 3.1 Iowa Army Ammunition Plant Location

Information regarding the location, character, or ownership of historic resources withheld pursuant to National Historic Preservation Act, Section 304, and Advisory Council on Historic Preservation regulations at 10 CFR 800.11(c).



Source: ESRI Resource Data

Figure 3.2 Iowa Army Ammunition Plant Layout

Information regarding the location, character, or ownership of historic resources withheld pursuant to National Historic Preservation Act, Section 304, and Advisory Council on Historic Preservation regulations at 10 CFR 800.11(c).

IAAAP is a U.S. Army installation currently under the jurisdiction of the U.S. Army Materiel Command and the Joint Munitions Command (JMC). Created in 1941, the current mission of IAAAP is to produce and deliver Large Caliber munitions to U.S. Joint Forces that instill confidence through material superiority in their ability to engage and destroy targets at will (Joint Munitions Command of the U.S. Army 2012).

The capabilities of IAAAP include the following:

1. Load, assemble, and pack (LAP) a full range of munitions and high explosive components;
2. Tank ammunition (105 mm; 120 mm);
3. High explosive artillery;
4. Large-caliber mortars (81 mm; 120 mm);
5. Insensitive munitions;
6. Smart munitions mines/scatterable mines;
7. Missile assembly/missile warheads;
8. Rocket assisted projectiles;
9. Detonators;
10. Development;
11. Pressed and cast warheads; and
12. Testing.

Of the approximately 30 square miles occupied by IAAAP, about one third contains active or formerly active munitions production or storage facilities. The remaining two-thirds of the property is forested or used for outdoor recreation or leased for agricultural purposes and grazing land. Additionally, third-party production tenants also operate on IAAAP lands under arrangements with the Operating Contractor. The activities of these third parties do not extend beyond plant line buildings, and all ground-disturbing and/or building-altering activities require prior review and written consent of the Operating Contractor and the IAAAP CRM, and the Commander (as appropriate).

3.2 ENVIRONMENTAL SETTING

This section reviews the natural environment of Iowa Army Ammunition Plant including its climate, geology, topography, soils, hydrology, and biology.

The sections below provide details on the installation's physiography, water resources, flora and fauna, and paleoenvironmental and modern climates.

3.2.1 Physiography

The IAAAP is located in Des Moines County, which is in the southeast portion of the state. It is situated approximately 10 miles west of Burlington and the Mississippi River. The 409-square mile Des Moines County consists of agricultural land, urban land, pasture, woodlands, and idle land (Brown 1983:1). The county is bordered by the Mississippi River on the east and the Skunk River on the south.

The topography of the area ranges from 520 feet above mean sea level (msl) at the confluence of the Mississippi and Skunk rivers to 862 feet above msl at the highest point near Yarmouth in the east central part of the county (Brown 1983:3). Generally, the county is nearly level to gently sloping. Within the IAAAP itself, elevations range from 544-732 feet above msl. The IAAAP is mostly flat in the north, with ridges between drainages in the south. Also in the southern portion of the plant, above the Skunk River, narrow and steep drainage valleys and bluffs are observed.

Soils in the Des Moines County area formed in loess, glacial till, alluvium, material weathered from limestone bedrock, and eolian sand (Brown 1983:119). Loess, silty wind deposited material, is the most common parent material in the county and was deposited during the Wisconsin glacial period (27,000-12,000 years ago). In some areas of the county, the loess is 15 feet thick on the Mississippi River bluffs. Glacial till was likely deposited in the area during the Nebraskan, Kansan, and Illinoian periods (spanning 2.6 million to 130,000 years ago). These soils range from gray and clayey to firm loam to friable loam. Alluvium is water deposited sediment along rivers and steams that varies widely in texture. The majority of soils in the county are developed from loess, till, and alluvium from the Mississippi River. Limestone bedrock and Eolian sands are also present. Limestone bedrock, the oldest parent material in the county, is found on or near the surface, and is often found at the base of steep slopes. The wind deposited Eolian sands is mostly fine quartz and found on stream benches (Brown 1983:120-121).

The IAAAP is located at the meeting point of the Southern Iowa Drift Plain to the west and the Mississippi Alluvial Plain to the east. The movement of melting glaciers caused the formation of the Drift Plain, while the Mississippi Alluvial Plain was formed by cuts by the Mississippi River that created alluvial flood plains. Wind swept sand dunes are evident along portions of both the Mississippi and Skunk rivers (Prior 1991; Peyton 2001).

As Peyton observes, Morrow (1994) identified:

> …nine different bedrock formations with surface outcrops across Iowa, which contain approximately 35 distinctive raw material types suitable for stone tool manufacture. IAAAP is on Mississippian bedrock, which contains a variety of high quality cherts. More specifically, the Burlington Formation of the Osagean Series underlies the installation. As such, outcrops of Burlington chert occur in the extreme southeastern portion of Iowa, in Des Moines County, both on IAAAP and in its immediate vicinity. Three different varieties of Burlington chert are recognized by Morrow (1994): Burlington white mottled chert, Burlington gray and tan chert, and Burlington fossiliferous chert. The white mottled variety is the most common of the series on archeological sites and was a preferred raw material during the Paleo-Indian, Early Archaic, Middle Woodland, and Late Prehistoric periods (Morrow 1994). Burlington white mottled chert is encountered on archeological sites not only in southeast Iowa, near the outcrops, but also across the state and Midwest. The archeological occurrence of other varieties of Burlington chert is restricted geographically to Louisa and Des Moines counties, and this chert is usually found in close proximity to outcrops (Morrow 1994). Other types of chert that may be encountered on archeological sites within IAAAP include Keokuk chert (documented outcrops exist to the south of the Plant area in Lee and Van Buren counties); Warsaw formation cherts (which are common in the Skunk River Basin), and Spergen cherts (Morrow 1994 in Peyton 2001).

Both quarries and outcrops have been documented within the IAAAP (Hansen 1973). Hanson recorded these formations south of the Plant, in South Augusta, along the Skunk River, and along Spring Creek east of Route 61, southeast of the installation. Outcrops are also found along the Mississippi River. Two lithic outcrops were noted within the Plant, north of Lake Mathes on Long Creek (Hansen 1973 in Peyton 2001).

During a 1991 archeological reconnaissance survey of the IAAAP, seven quarry sites and/or outcrops were recorded within the property boundaries (Winham et al. 1991). One of these may be one mentioned by Hansen (1973). Site 13DM487 is located on Long Creek west of Lake Mathes. Three more were located south of the Lake also on Long Creek: one is on an intermittent stream that drains into the Skunk River in the southwest part of the property; one is on Brush Creek north of Plant Road K and northeast of Shiloh (also known as Avery) Cemetery; and one is on a side ridge over Spring Creek in the northeast part of the IAAAP (Winham et al. 1991 in Peyton 2001). It is possible that additional outcrops and quarries are located within the confines of the IAAAP, as the property has not been completely surveyed for archeological remains.

3.2.1.1 Soils

Six major soil types are documented within the IAAAP according to the Des Moines County Soil Survey (Brown 1983). These include: Weller-Pershing-Grundy, Nodaway-Lawson-Klum, Nira-Otley-Mahaska, Mahaska-Tainter, Clinton-Lindley, and Givin-Hedrick-Ladoga.

The Nodaway-Lawson-Klum association is found along the Long Creek Valley. These mostly level and moderately well drained to poorly drained soils are loamy and sandy and found in bottomlands and floodplains (Brown 1983:5). Slopes generally range from 0-2 percent in these areas and are found in up to seven percent of Des Moines County. Found in both major and minor stream valleys, these soils are found in narrow to moderately wide valleys. The soil association is comprised of roughly 20 percent Nodaway, 14 percent Lawson, 10 percent Klum, and 56 percent minor soil types (Brown 1983:5). Ranging in color from very dark grayish brown to very dark brown to very dark gray to black, the textures can be silt loam, silty clay loam, and fine sandy loam. The majority of land with these soil types is used for crops or hay and pasture; however, Mississippi and Skunk River floodplains support trees and other vegetation (Brown 1983).

Nira-Otley-Mahaska association soils are found in the far northwest corner of the IAAAP. These "nearly level to moderately sloping, moderately well drained and somewhat poorly drained, silty soils" are found in the uplands and formed from loess (Brown 1983:7). Located on moderately wide or wide ridge tops and short side slopes, the range of slope is 1-9 percent. Covering approximately eight percent of Des Moines County, this soil association is comprised of 35 percent Nira, 30 percent Otley, 15 percent Mahaska, and 20 percent minor soil types. Nira and Otley are moderately well drained, while Mahaska soils are somewhat poorly drained. The typical Nira soils profile consists of eight inches of black silty clay loam over six inches of very dark grayish brown silty clay loam over mottled friable silty clay loam subsoil. Otley soils generally contain six inches of very dark brown silty clay loam over an 8-inch layer of very dark brown and dark brown silty clay loam. Subsoils are around 35 inches thick and consist of silty clay loams. Mahaska soils are black silty clay loams in the upper 10 inches, followed by black and very dark grayish brown silty clay loam for eight inches. Subsoils are friable silty clay loam (Brown 1983). Used for agricultural crops and pasture, the soils are suited to this purpose.

Mahaska-Taintor association soils are "nearly level, somewhat poorly drained and poorly drained, silty soils on uplands" (Brown 1983:8). Developed in loess and found on wide or moderately wide ridgetops without well-defined drains, slopes range from 0-3 percent. Comprising 20 percent of Des Moines County, this association is made up of 48 percent Mahaska, 42 percent Taintor, and 10 percent minor soils. Mahaska soils were discussed in depth above. Typical soil profiles for Taintor soils include eight inches of black silty clay loam over 15 inches of black mottled silty clay loam over mottled silty clay loam subsoil. Used almost exclusively as cropland for growing soybeans and corn for years, urbanization is now taking over this soil type (Brown 1983). This soil association is found in the northern portion of the IAAAP and in on major ridges.

Clinton-Lindley association soils are found between the Givin-Hedrick-Ladago soils and the major river valleys within IAAAP. Consisting of "gently sloping to very steep, moderately well drained and well drained, loamy and silty soils on uplands and high stream benches", these soils lie on narrow ridge tops and side slopes (Brown 1983:9-10). Formed in loess and glacial till, slopes range from 2-40 percent. Comprising 32 percent of Des Moines County, the association is made up of 45 percent Clinton soils, 25 percent Lindley soils, and 30 percent minor soil types. Clinton soils are found on gentle to strong slopes, while Lindley soils are found on strong to very steep slopes. Clinton soils typically display eight inches of dark brown silty loam over four inches of brown silt loam over dark yellowish brown silty clay loam subsoil. The surface layer of Lindley soils is typically three inches of very dark grayish brown loam over four inches of brown loam over subsoil. Land in these areas is generally used for crops, pasture, or timber production, with the number of farms having decreased (Brown 1983).

Givin-Hedrick-Ladoga association soils are located adjacent to the Mahaska-Taintor soils to the south. Defined as "nearly level to moderately sloping, somewhat poorly drained and moderately well drained, silty soils on uplands", these soils are found on ridgetops and side slopes with well developed drainage systems (Brown 1983:11). Comprising 16 percent of Des Moines County, 35 percent of the association is made up of Givin soils, 25 percent are Hedrick, 20 percent are Ladoga, and the remaining 20 percent are a combination of minor soils. Gavin soils are typically eight inches of very dark brown silt loam over four inches of dark grayish brown mottled silty loam over subsoil. Hedrick soils display a typical soil profile of eight inches of very dark grayish brown silt loam over four inches of brown silt loam over friable silty clay loam subsoil. Ladoga soils generally contain eight inches of very dark grayish brown silt loam over three inches of brown silt loam over mottled friable and firm silty clay loam. Cultivated crops and permanent pasture are found in these soils.

Weller-Pershing-Grundy soils are found on the far western edge of the IAAAP and are defined as "gently sloping and moderately sloping, moderately well drained and somewhat poorly drained, silty soils on uplands" (Brown 1983:13). Found on narrow ridgetops and side slopes with well-developed drains, the soils formed in loess and are found on slopes ranging from 1-9 percent. Only making up about three percent of Des Moines County, the association is comprised of 32 percent Weller soils, 19 percent Pershing soils, 11 percent Grundy soils, and 38 percent various minor soil types. Weller soils are comprised of a five-inch layer of brown silt loam over four inches of brown mottled silt loam over subsoil. Pershing soils usually have nine inches of very dark grayish brown silt loam over subsoil. Grundy soils are generally black silty clay loams (10 inches) over very dark gray silty clay loam (4 inches) over subsoil. Crops and pastureland occupy much of these areas (Brown 1983).

Farming was the primary land use for the IAAAP area historically, and most the area was cleared of native vegetation for this purpose. Plowing and agricultural disturbances, as well as associated erosion, are evident in the soils. Erosion is common throughout the IAAAP, notably in the southern and western portions where it is more sloped.

3.2.2 Water Resources

The IAAAP is located just west of the Mississippi River and just north of the Skunk River. The Mississippi and its tributaries drain approximately 67 percent of the county, while the Skunk River and its tributaries drain 27 percent. The remaining six percent is drained by the Iowa River (located in Louisa County) to the north. Cedar Creek, Long Creek, and Brush Creek flow into the Skunk River, which forms the southern border of the county. A few small tributaries of the Iowa River flow north through the county while Flint Creek and Spring Creek flow into the Mississippi. Several creeks, including Yellow Spring Creek, Hawkeye Creek, and Dolby Creek, drain into diversion ditches, which are routed to the Mississippi (Brown 1983:3). There is a levee on the Mississippi north of Burlington that aids in flood

protection. Drainage ditches are common and lead to pump stations, where water is pumped into the Mississippi over the levee. The water table is kept artificially low due to the levee and the pumps (Brown 1983:3).

3.2.3 Floral Resources

Originally, oak-hickory forests were found in this area eastern Iowa (Braun 1950). Black oak, white oak, shingle oak, shagbark hickory, and hazelnut are found in open forests on dry slopes (Conrad 1952; Schwegman 1973). In wetter areas, red oak, basswood, black walnut, slippery elm, and hackberry are common. Floodplain species include American elm, slippery elm, cottonwood, sycamore, green ash, silver maple, and black walnut with willow and river birch found on river and stream banks (Conrad 1952; Schwegman 1973).

Today, within the IAAAP, white oak, hickory, and mixed hardwoods are common in the woodlands. Sumac, hawthorne, ironwood, and wild berries are also found (Peyton 2001). Covered predominately in bluegrass, smooth brome, orchard, and bird's foot trefoil, 2,133 acres within the IAAAP are classified as grassland (Mason & Hanger-Silas Mason 1995).

3.2.4 Faunal Resources

Prior to European habitation, a diverse faunal community existed in the area surrounding the IAAAP. Species included elk, deer, raccoon, turkey, squirrel, bear, woodchuck, opossum, and rabbit. Prairie chicken and bison inhabited the prairie in prehistoric times (Peyton 2001). Migratory and woodland songbirds birds were common. The presence of major river systems (the Mississippi and the Skunk) and their tributaries supported a variety of fish and water birds, as well as turtle, muskrat, beaver, and mussels.

The conservation programs at IAAAP have supported numerous animal populations, including rabbits, squirrels, turkeys, raccoons, coyotes, bobwhite, and deer. The endangered Indiana bat and Orange Throated Darter are found in the IAAAP boundaries.

3.2.5 Paleoenvironmental Conditions

From a regional perspective, the environmental conditions in Iowa and adjacent areas have fluctuated moderately since the maxima of the last ice age, about 25,000-16,000 years ago (Saucier 1974, Albert and Wyckoff 1984, Davis 1989, and Story 1990). The maximum extent of the ice sheet stretched from northwestern Pennsylvania across Ohio, Indiana, and northern Iowa, and covered much of North and South Dakota (Flint 1957). It is estimated that the ice sheet may have been 1,000 feet thick in central Ohio (Hansen 2012). The climatic conditions were generally thought to be much cooler and moister than at present.

Spruce dominated forests dominated the landscape of Iowa from 30,000-21,500 years ago but were replaced by open tundra during the glacial maximum around 21,500 16,000 years ago. As glacial ice began to disappear and the climate warmed between 16,000 and 12,000 years ago, spruce forests re-emerged. Though climatic conditions became slightly warmer they were still cool and moist by modern standards. The continental glaciers were on the wane. This shift has been interpreted to reflect increased precipitation during the growing seasons (Delcourt and Delcourt 1985). About 9,000 years ago, prairies emerged in west and central Iowa. Oaks returned to Iowa between 4,000 and 3,000 years ago and survived until Europeans arrived in the area (University of Iowa 2012).

Prairie fires prevented the spread of the forest and helped maintain the prairie environment. These fires were naturally occurring due to lightening but may have also been intentionally set by Native Americans. It is estimated that by the Contact period, roughly 85 percent of the state was prairie (University of Iowa 2012).

From about 6,500-4,000 years ago, the period was marked by extreme warming and drying trends. Although once regarded as the Altithermal, Thermal Maximum, or the Hypsethermal, it is apparent that the drying trend across North America was neither synchronous nor uniform. Later, as Lake Albany shrank and the glacier retreated, the area dried and the Hudson River and Mohawk River drainage system emerged (Funk 1976:208; Thompson 1977:19-23).

3.2.6 Modern Climate

Variability in the climate of the interior of North America east of the Rocky Mountains is predominantly due to the interactions of three air masses: (1) the Arctic air mass from the polar region brings cold, dry air; (2) the Pacific air mass from the west coast brings in warm air, which is dried as it crosses the Rocky Mountains; and (3) the Maritime Tropical air mass brings in warm moist air from the Gulf of Mexico (Baerreis et al. 1970). The relative strength of these air masses on a seasonal cycle sets up the frontal boundaries that dictate where storm paths track across the eastern United States and determine general weather patterns.

Eastern Iowa has a moderate climate, with cold winters and hot summers. In Des Moines County the average yearly temperature is around 50 degrees Fahrenheit. In winter temperatures generally range from 12-48 degrees, Fahrenheit while in summer the range is from around 60-85 degrees Fahrenheit (Brown 1983: Table 1). The lowest recorded temperature for Burlington was -23 degrees Fahrenheit in 1977. The highest temperature recorded in Burlington was 101 degrees Fahrenheit in 1966. Average rainfall is approximately 36 inches, with the most of it falling in spring and summer. Thunderstorms occur mostly in summer, and on average during 51 days each year. Snowfall is about 25 inches per year. Tornadoes and severe thunderstorms occur from time to time (Brown 1983).

3.3 UNDERTAKINGS

This section reviews the types of undertakings at Iowa Army Ammunition Plant that can affect cultural resources.

At IAAAP, personnel conduct a wide variety of undertakings that have the potential to affect cultural resources. Some of these undertakings are ongoing, such as mission-related production of munitions; maintenance and repair operations; site remediation; and water treatment and sewage disposal. Other undertakings, such as agricultural use of lands, recur regularly. Additional undertakings are case-specific, such as the planned construction of new buildings or facilities. This section reviews in general terms the variety of undertakings and their possible effects. Specific undertakings that are planned, but not yet implemented, with a potential for impacting cultural resources are identified in the five-year plan in Section 4.0.

3.3.1 Planned Undertakings

This section discusses planned undertakings, including the construction of new buildings, revitalization of old buildings, building demolition, development of infrastructure, pollution control and remediation, and issues involving real property.

3.3.1.1 Construction of New Buildings

IAAAP is planning construction of new ancillary facilities at production Lines 2 and 3A, and the replacement of the sewage treatment plant, but otherwise, there will be minimal new construction in the next five years.

The construction of new buildings and the expansion of existing buildings have the potential to affect historic properties. Site preparation often involves extensive earthmoving and trenching, which can result in damage to or total destruction of archeological sites. New buildings and structures can also interfere with the viewscapes of historic properties. However, impacts to cultural resources will only occur if construction is started on or in the immediate vicinity of NRHP eligible or unevaluated historic structures, archeological sites, or cultural resources significant to traditional groups.

3.3.1.2 Revitalization of Existing Buildings

IAAAP is planning on alteration to and revitalization of existing buildings in the next five years. The alteration of existing buildings, including revitalization, renovation, and rehabilitation, has the potential to affect historic properties. These undertakings can involve a variety of alterations (ranging from minor to major) to the interior or exterior of a building. Alterations may include the following types of revitalization:

- Installation of access ramps or elevators in compliance with the Americans With Disabilities Act of 1990 (42 USC 12101), utilizing the 2010 standards;
- Changes to interior floor plans, interior finishing, and moving or closure of door and window openings;
- Installation of new windows or new exterior hardware;
- Application of exterior facings or changes to exterior surfaces;
- New roofing;
- Installation or upgrading of insulation, weather-stripping, and heating or air conditioning systems; or
- Installation or upgrading of electrical or plumbing systems.

3.3.1.3 Demolition of Buildings

IAAAP is planning to demolish buildings to make way for new construction and to demolish buildings that have fallen into disrepair. In all, 291 buildings and structures are currently identified on a demolition priority list. While this list is lengthy, it is a priority list only and does not guarantee demolition within the next five years. A total of 221 of the proposed demolitions are facilities that have reached 50 years of age and are currently listed in the IAAAP buildings and structures inventory as ELPA.

For an NRHP-eligible building, demolition is always an adverse effect. In addition, demolition has the potential to damage known and unknown archeological sites that may be near or underneath the building.

Following a 1986 Programmatic Memorandum of Agreement (PMOA) issued between the DOD, the National Council of State Historic Preservation Offices (NCSHPO), and the ACHP, demolition of World War II-era temporary buildings and structures is excluded from Section 106 review. Undertakings excluded from the PMOA were rehabilitation, renovation, and relocation.

However, two Program Comments between DOD and ACHP address undertakings associated with World War II and Cold War Era (1939-1974) buildings and structures at IAAAP. These Program Comments provide mitigation guidelines for the treatment of eligible properties at IAAAP and other Army ammunition storage facilities and ammunition production facilities and plants.

Mitigation for Army ammunition production facilities and plants included the following:

- Preparation of a supplemental volume to the extant document, Historic Context for the World War II Ordnance Department's Government-Owned Contractor-Operated (GOCO) Industrial Facilities 1939-1945, which includes a Cold War Era (1946-1974) context with a focus on plant alterations due to changing weapons technology and defense needs, and identifying architect-engineer firms that were instrumental in the creation of significant buildings and structures for Army Ammunition Plants;

- HABS/HAER documentation for selected architecturally significant Facilities and Plants at two installations;

- Develop public information on the Army ammunition process, from production through storage to include a display that can be loaned to Army museums and a popular publication on the ammunition process; and

- Encourage adaptive reuse of properties and use of historic tax credits by private developers under lease agreements.

Mitigation for Army ammunition storage facilities included the following:

- Expansion and revision of the context study, Army Ammunition and Explosives Storage in the United States, 1775-1945 to include the Cold War Era, with a focus on changing ammunition storage during this period due to technological advances, notable builders, architects, and engineers associated with ammunition storage facilities, and including a detailed inventory of ammunition storage facilities with information on building types and architectural styles and the quantity of each, and

- In-depth documentation of nine ammunition storage facilities, to include brief histories, with a primary focus on historic photographs and existing plans.

According to the Program Comments, Army completion of the outlined tasks accomplishes the Section 106 responsibility for these historic properties.

3.3.1.4 Development of Infrastructure

IAAAP is planning on minimal development of infrastructure in the next five years. Infrastructure undertakings at IAAAP can include:

- Construction and widening of roads;
- Construction, and renovation of bridges and overpasses;

- Installation of new water, steam, gas, and sewer lines;
- Installation of new electric, cable, telephone, and fiber optic lines;
- Installation or removal of signage;
- Installation or removal of fences; and/or
- Development of outdoor recreational facilities such as boat ramps, picnic areas, angler access, and parking.

Such developments can affect historic properties. When these developments are below ground, the potential effect is to archeological sites. Depth of such developments is often between three and four feet below ground, and gravity flow sanitary lines may be more deeply buried. Aboveground infrastructure components can also affect historic structures, historic landscapes, and cultural resources significant to traditional groups.

3.3.1.5 Pollution Control and Remediation

Remedial actions by the Army and USACE are ongoing or planned future actions. Those remedial actions currently planned are not known to potentially result in adverse effect to known historic properties, especially buried archeological sites. Activities associated with these types of undertakings include core borings, monitoring well installation, detonation of residual unmovable potentially live ordnance, and extensive earth moving.

3.3.1.6 Real Property

Transference or leasing of real property to a non-Federal agency or to another Federal agency can result in effects to historic properties because of changed land management practices or through changes in the levels of building maintenance associated with transfer/leasing. Since its creation in 1941, IAAAP has undergone some boundary changes, reflecting various acquisitions and quit claim deeds. While IAAAP now measures 19,011 acres, the original boundaries of the property composed approximately 20,450 acres. The most recent conveyance of 121.17 acres of land from IAAAP to the City of Middletown took place in the 1990s and resulted in a loss of real property and, as a result, was seen as having an adverse effect on the potentially eligible district (IAAAP) due to the plant's role in World War II.

3.3.1.7 Memorials

It should be noted that military installations include buildings, roads, and landscaping that are memorialized in the name of individuals associated with the installations, like commanders or generals. The creation of memorials is overseen by the Army Memorial Program and Army Regulation 1-33. Part 2-5 of AR 1-33 outlines the procedures for memorials when an installation is closing:

When an installation closes, the installation commander is responsible for the disposition of memorial plaques. He or she should offer the plaque to the next of kin of the person memorialized. If the next of kin cannot be located or refuses a plaque, it will be sent to the U.S. Army Historical Clearing House.

3.3.2 Recurrent and Periodic Undertakings Involving Agriculture

Dating to the plant's earliest days, IAAAP is home to one of the Army's largest agricultural programs. Row crops, hay, and cattle grazing are all active agricultural enterprises at IAAAP and have taken place through agricultural leasing since 1945. Some agricultural land has been converted to native grass prairie. As of 2006, IAAAP had 43 crop leases, which are in place for five-year periods.

Row crops of primarily corn and soybeans compose about 5,532 acres at IAAAP. The 10 haying and grazing leases occur on approximately 1,575 acres. Each lease has its own management plan and leases on highly erodible lands also have conservation compliance plans. The no-till farming method, which involves no seedbed preparation besides opening a small slit or punching a hole in to the soil, and crop rotating is practiced at IAAAP (Gene Stout and Associates and Blythe & Trousil, Inc. 2006).

Yearly Agricultural and Grazing Outlease Tract Management Plans (TMPs) are submitted to SHPO for concurrence for tracts up for lease renewal and/or review. In the cover letter submitted to SHPO is a list of the tracts in question along with any archeological sites (and the associated site recommendation) that are within or partially within the tillage area of that tract (See Appendix F for an example of a TMP cover letter and concurrence).

3.3.3 Ongoing and Routine Undertakings

Many undertakings at Federal installations are ongoing and routine aspects of mission operations. Because these are considered routine, they are sometimes not recognized as undertakings. However, these routine undertakings often have very large effects on NRHP-eligible properties (if within the APE), as well as TCPs, sacred sites (both within and potentially outside of the APE), a condition or possibility that must be taken into account. Building repair and maintenance, landscaping, infrastructure maintenance, recreational activities, and testing and training operations are discussed below.

3.3.3.1 Repair and Maintenance of Existing Buildings

In addition to planned revitalization projects, the routine maintenance and repair of existing buildings can potentially diminish the integrity of NRHP-eligible properties if materials, colors, styles, or workmanship that are not compatible with the existing architectural fabric and styles are used.

3.3.3.2 Landscape Maintenance

Routine landscape maintenance can lessen the integrity of archeological properties. The alteration of existing land contours or drainage systems through blading, excavation, borrowing, or filling can damage sites. Landscape-related undertakings also include mowing of utility rights-of-way, fire lanes, athletic fields, and golf courses. Landscape planting to improve appearance, the removal of landscape trees, and agricultural processes all occur regularly at IAAAP. All these activities have the potential to affect NRHP-eligible properties if within the APE, as well as TCPs and sacred sites both within and potentially outside of the APE. Erosion control measures such as dams, contouring, and ground cover planting could also potentially affect cultural resources.

3.3.3.3 Maintenance and Repair of Infrastructure

The regular repair and maintenance of infrastructure can result in effects to NRHP eligible properties. Earth-moving activities could disturb archeological sites, and aboveground repairs, if not in keeping with architectural elements of the original structure, can affect the viewsheds of historic buildings or districts. IAAAP regularly maintains and repairs roads, bridges, railroads, and overpasses; buried water, sewer, and gas pipes; electric, cable, telephone, and fiber optic lines; aboveground steam pipes and electric, cable, fiber optic, and telephone lines; and signs and fences.

3.3.3.4 Recreation

NRHP eligible properties (if within the APE), as well as TCPs, sacred sites (both within and potentially outside of the APE), especially archeological sites, can be indirectly affected by public use of previously

established recreational facilities such as parks, trails, and picnic, hunting, and camping areas. Such areas facilitate the casual collection of surface artifacts, and the degradation of stream banks that may contain archeological deposits.

3.3.3.5 Testing and Training

The Iowa Army National Guard (the Guard) 524.1-acre tract southwest of Line 3A is currently closed to use by heavy equipment. An additional 144.7-acre training area is located near Mathes Lake. Guard training on these tracts was regarded by SHPO on October 3, 2000 as having "No Adverse Effect" on IAAAP resources. Provisions in an EA for such lands regulate various Guard missions and training conditions.

The areas established prior to 2010 for use as testing tracts for live munitions are significantly disturbed and therefore cultural resource surveys are not needed. However, NRHP-eligible properties within the APE, as well as TCPs or sacred sites within the APE and potentially outside of the APE may still be affected by ground-disturbing activities. Cultural resources investigations were conducted in 2010 for the establishment of a new 40-mm test range.

3.4 CURRENT MANAGEMENT PRACTICES

This section summarizes the current process by which cultural resources at Iowa Army Ammunition Plant are being managed.

3.4.1 Personnel

One person, who serves as the IAAAP Natural Resources manager as well, conducts the management of cultural resources at IAAAP with assistance from the Operating Contractor as appropriate. The CRM is responsible for determining the APE for each undertaking, identifying and evaluating significance, assessing effects, and consulting with SHPO and other designated participants.

A complete list of archeological sites and buildings on IAAAP, with their National Register evaluations, are provided in Appendix C. As of 2012, only one archeological site has been determined eligible for the NRHP. A total of 957 buildings and structures at IAAAP are considered "eligible for the purposes of a program alternative," or ELPA, as the result of two 2006 Program Comments.

3.4.2 Review of Undertakings

As the contractor-operator at IAAAP, the Operating Contractor has the overall responsibility for installation operations under a "facilities use" contract. However, since IAAAP is a government-owned facility, responsibility for the whole of IAAAP ultimately rests with the Army.

At IAAAP, the installations NRM also serves as the CRM. CRM duties at IAAAP are split to provide full installation coverage. CRM duties at IAAAP are additional duties to already existing positions. While the NRM serves as the overall CRM the NRM focus is on possible impacts to archeological resources. The Chief of Contract Administration also serves as RPAO who reviews requests for the modification of facilities for possible impacts to structures to include cultural and historical impacts. The NRM and RPAO work together to provide full installation coverage.

Non-routine undertakings such as new constructions (buildings or roads), demolitions, and relocations of buildings, are reviewed for possible adverse effects to cultural resources by submitting Dig Notices to the CRM and Modification Requests to the RPAO.

Currently, 957 buildings and structures at IAAAP are assigned the code ELPA (eligible for the purposes of a program alternative) as the result of two 2006 Program Comments between the DOD and ACHP. The program comments provide mitigation for eligible ammunition storage and production facilities and plants. Under the program comments, the DOD and Army have met Section 106 responsibilities regarding effects of the following management actions on World War II and Cold War Era ammunition storage facilities and ammunition production facilities and plants that may be eligible for National Register listing:

- Ongoing operations;
- Maintenance and Repair;
- Rehabilitation;
- Renovation;
- Mothballing;
- Cessation of Maintenance;
- New Construction;
- Demolition;
- Deconstruction and Salvage;
- Remediation Activities; and
- Transfer, Sale, Lease, or Closure of such facilities.

As of 2012, cultural resources procedures consisted of development of dig notices and land use procedures and controls by the CRM. Additionally, the CRM currently manages tillage procedures to sites already considered plow zones and avoidance of existing sites.

3.4.3 Agency Agreements

IAAAP currently has no MOAs concerning the management of cultural resources. In 2006, two separate PAs between DOD and ACHP were released that effect mitigation for Section 106 procedures at IAAAP. Program Comment for World War II and Cold War Era (1939-1974) Army Ammunition Production Facilities and Plants and Program Comment for World War II and Cold War Era (1939-1974) Ammunition Storage Facilities both state that if the Army follows the Program Comments, it will meet the responsibilities for compliance under Section 106 regarding the effect of several management actions on such World War II and Cold War Era buildings and structures that may be eligible for National Register listing.

An MOU has been completed between IAAAP and the University of Iowa, Office of the State Archeologist. The MOU facilitates the curation of archeological material recovered at or sponsored by IAAAP.

A Programmatic MOU between the Iowa SHPO and IAAAP has been drafted. The purpose of this MOU is to reduce Section 106 review for agricultural activities that meet qualifying criteria. The criteria stipulate that:

- Agricultural practices take place on existing cultivated lands; or
- Projects don't involve any ground disturbing activities on previously identified sites below the plow zone; or
- Cultivation of new ground is done on lands that have been previously disturbed and/or surveyed for cultural resources and determined to contain none of significance.

In addition, the Programmatic MOU outlines typical agricultural activities that can be excluded from Section 106 review. These include:

- No-till, conservation-till, or other tillage operations on agricultural fields that have no known archeological sites and/or have been severely disturbed from past land practices; or
- No-till or conservation till agricultural practices on areas with known archeological sites; or
- No-till agricultural practices on fields subject to moderate to sever erosion due to % slope of field; or
- Harvesting of crops; or application of pesticides, fertilizers, or water onto the fields, as long has there are no changes in application methods or significant increases in fertilizer use; or
- Mowing of roadside vegetation; or
- Routine maintenance of the access roads with no previously identified archeological sites; or
- Installing or repair of field tile and waterways in areas with no previously identified archeological sites; or
- Conventional tillage for establishment of hay crops or small grains.

The MOU has not, as yet, been finalized.

3.5 HISTORIC OVERVIEW

This section reviews the past human habitation of the Iowa Army Ammunition Plant from the earliest arrival of people to the twentieth century.

3.5.1 Prehistoric Period

This discussion of southeastern Iowa prehistory is based on the original Cultural Resource Management Plan (Geo-Marine 1996) and an additional plan compiled in 2001 (Peyton 2002). These two works utilized a number of studies, including: Griffin 1967; Morrow 1984 a and b; Goodyear 1982; Bell 1958; Chapman 1975; Dumont 1981; Hayden 1982; Warren and O'Brien 1982; Brown and Viterra 1983; Warren 1982; Conrad 1981; McElrath 1993; McElrath et al. 1984; Hall 1977; Hall 1980; Benn 1984, 1986; Benn et al. 1988; Benn 1989; Gibbon 1986, 1974; Henning 1970; Asch and Asch 1985; Benn and Rogers 1985; Green 1987; Kelly et al. 1984; McConnaughy et al. 1985; Tiffany 1979; Moffat and Moffat 1988; and Markman 1991.

The earliest accepted date of humans settling North America is about 10,000 B.C. While there are some sites that have been dated earlier, it is apparent that human beings were occupying North America by this date. It is also generally accepted that humans first came to North America from Siberia through the Bering Strait. Due to the glacial ice of the Middle and Late Wisconsin age, the sea level was lower than it

is today. Geologic evidence indicates that the lower sea level exposed a land bridge between North America and Siberia, which allowed humans to cross. From this point, humans eventually migrated into present-day Iowa.

The prehistory of southeastern Iowa is divided into four broad periods: the Paleoindian (10,500-7500 B.C.), Archaic (7500-800 B.C.), Woodland (800 B.C.-A.D. 1000), and Mississippian (A.D. 1000-1700). Within these four broad time periods, shorter phases are discussed. Generally speaking, over time there was a gradual increase in social complexity and accompanying cultural and technological change. Paleoindian people hunted large game; however, environmental changes precipitated a shift to hunting and gathering in the Archaic period. The Woodland Tradition was much different than the preceding periods with the introduction of pottery, the bow and arrow, and more advanced horticulture. During the Mississippian, tribal social organization emerged.

3.5.1.1 Paleoindian Period (10,500-7500 B.C.)

The Paleoindian period extended from 10,500-7500 B.C. After the retreat of the glaciers approximately 13,000 years ago, environmental changes ensued and Paleoindian people were the first to inhabit the Iowa area. It is generally thought that Paleoindians hunted megafauna; however, fewer than 100 archeological sites are associated with these now extinct megafauna, making study and inference difficult and problematic (Krech 2012). In the Upper Mississippi River Basin, it is thought that Paleoindians roamed the boreal forest hunting megafauna, such as mastodon, mammoth, and moose elk. It is probable that they hunted smaller animals as well: perhaps deer, wolf, moose, elk and bison. It seems likely that Paleoindians utilized aquatic resources as well, though this is not documented.

The finely flaked lanceolate projectile point, most notably the fluted point, is the primary technological remnant of the Paleoindian period. Early points exhibit fluting, while later points do not (Geo-Marine 1996). Other artifacts of the period include transverse side scrapers, spurred end scrapers, drills, knives, blades, retouched flakes, and choppers (Peyton 2002). Towards the end of the Paleoindian, woodworking tools are utilized (Geo-Marine 1996) and more stemmed varieties of points are found (Cunning et al 2009). One Paleoindian site has been excavated in Iowa, though surface finds are more common (Cunning et al. 2009).

3.5.1.2 Archaic Period (7500-800 B.C.)

The Archaic period (from about 7500-800 B.C.) showed a gradual transition from the Paleoindian period. The main difference between the Early Archaic and the Paleoindian stage is the method of producing stone tools and a less nomadic existence. In addition, population appears to have grown (Cunning et al. 2009). The Archaic is generally divided into Early, Middle, and Late.

3.5.1.2.1 Early Archaic (7500–5000 B.C.)

Evidence suggests that hunting megafauna was no longer the main subsistence strategy and bands of people began to move seasonally through a territory. The warmer Holocene temperatures allowed a more diversified subsistence strategy of hunting and gathering in the Plains and Midwest. It is posited that Early Archaic people lived in small, extended family bands of approximately 20 people and roamed over a range hunting and gathering what was available seasonally (Peyton 2002). They did rely on a wider range of food resources, but bison were still hunted in the plains and prairies and deer in the woodlands. The chipped stone tool technology became more varied and included side notched and stemmed point types (Dalton, Graham Cove Notched, Hardin Barbed, Riced Lobed, St. Charles Notched). Beveled blade edges and basal grinding was also noted. Other artifacts that first appeared in the Early Archaic include: bannerstones, which may have served as atlatl weights, grinding stones, and ground stone tools like axes (Peyton 2002). Base camps that were occupied on a semi-permanent basis are known during this time.

Cemeteries with grave goods such as shell, copper, and non-local chert, are documented during the Early Archaic as well. In Iowa, many surface sites date to the Early Archaic (Cunning et al. 2009).

3.5.1.2.2 Middle Archaic (5000-2500 B.C.)

The Middle Archaic (5000-2500 B.C.) period was one of gradual change, adapting to a wooded environment. Floral and faunal remains indicate the Middle Archaic population relied on a diet rich in forest animals, as well as tree nuts, seeds, mussels, fish, and other river animals. There is evidence that though people still moved around foraging for food, some long term base camps were established to take advantage of abundant natural resources (Brown and Vierra 1983). It has been suggested that high terraces and the bases of bluffs were often occupied, perhaps due to drier climatic conditions around 6000-3000 B.C. in the Hpysithermal (Warren 1982). The tool kit and other artifacts associated with the Middle Archaic evidence organization and ability to exploit the environment. Artifacts are diverse and include fabrics, baskets, sandals and other unstable items as well as a wide variety of stone tools. Stone tools include: axes, plummets, hematite tools, grindings stones and slabs, winged "T" drills, scrapers, bannerstones, large bifaces, and specialized flake tools. In addition bone pins and shell ornaments are found (Peyton 2002). Point types include medium stemmed and corner notched points such as Jakie; however, later the side notched ypes like Matanzas and Raddatz/Godar points were more common (Cunning et al. 2009). No Middle Archaic sites have been documented in the IAAAP area and the area may not have been utilized during this time (Cunning et al. 2009).

3.5.1.2.3 Late Archaic (2500-500 B.C.)

There is evidence for increasing variation in the Late Archaic, both in regional and chronological terms (Peyton 2002). Five complexes, or phases, are identified for the region based on projectile point types. The Helton phase (3500-2000 B.C.) in the Lower Illinois Valley, was a transitional period, connecting the Middle to the Late Archaic. Small to medium side notched points, winged "T" drills, grooved axes, large scrapers, bifaces, and ground stone ornaments such as plummets are indicative of the phase (Conrad 1981; Peyton 2002). The Hemphill phase (2950-2250 B.C.) defined initially in west central Illinois may overlap the Helton phase or come after it. Diagnostic artifacts include deeply side notched Godar, Raddatz, and Osceola points. In addition, winged drills, large bifaces, scrapers, grooved axes, plummets and other grinding tools are found (Conrad 1981). The Titterington phase (2200-1800 B.C.) is defined for the American Bottom and Lower Illinois River Valley and is evidenced by gouges, drills, heavy scrapers, axes, and grinding tools (McElrath 1993; McElrath et al. 1984). Generally referred to as a Stemmed Point Complex (1500-800 B.C.), the fourth complex is defined by Table Rock Stemmed, Durst Stemmed, Tipton, Merom, and Trimble points in the American Bottom and Upper Mississippi Valley (Morow 1984). Though some of these points types are found in Iowa, the phase is not clearly defined. The Terminal Late Archaic has been defined for the American Bottom and is called "Prairie Lake" (900-500 B.C.) (McElrath et al. 1984). During this time, straight stemmed Dryoff and Springly points and expanding stemmed Mo-Pac points, along with scrapers, drills, gravers, celts, metates, pipes, plummets, galena, worked hematite are found (Peyton 2002).

3.5.1.3 Woodland Period (800 B.C.-A.D. 1000)

The manufacture of pottery, the use of bow and arrow, and the development and expansion of horticulture are hallmarks of the Woodland period. The development of these three things brought change in economic, social, and political realms (Peyton 2002). The Woodland period is divided into Early (800 B.C.-A.D. 200), Middle (A.D. 200-650), and Late (A.D. 650-1000).

3.5.1.3.1 Early Woodland (800 B.C.-A.D. 200)

A major technological change during the Woodland period is the advent of pottery production. The first vessels were small and crude with thick walls and heavy temper. Wide mouthed conoidal, shoulder-less jars with flat (Marion Thick) or pointed (Liverpool) bases could be heated for cooking (Peyton 2002). Fewer sites are found in upland environments, which may foreshadow the later shift to river valley occupations seen in the Middle Woodland (Peyton 2002). The presence of exotic materials suggests inter-regional trade (Perry 1996). In addition, mound construction, more permanent settlements, and the inception of agriculture begin during this period (Cunning et al. 2009). Kramer points are diagnostic for the Early Woodland and though horticulture is evident it does not appear to have played a major role in subsistence at this time (Cunning et al. 2009).

3.5.1.3.2 Middle Woodland (A.D. 200-650)

Benn (1986) described the four trait complexes for the Middle Woodland: technological innovation (bow and arrow, ceramic), elaborate ritual activity (mound construction), larger groups of people conducting more labor intensive subsistence practices, and population increase (Peyton 2002). During the Middle Woodland, rights to territories were often fortified by mound construction, the creation of "cult" objects such as human figurines, platform pipes, and specific point and ceramic styles. Exotic materials (grizzly bear teeth, galena, obsidian, mica, marine shell, copper and pipe stone) were also exchanged throughout the region and beyond (Peyton 2002; Perry 1996). This trade of exotic materials is often referred to as the Hopwellian Interaction Sphere (Perry 1996). Burials could be elaborate with limestone caps or cobbled enclosures within earthen mounds (Peyton 2002). The Toolesboro Mounds State Preserve in southeastern Iowa dates to the Middle Woodland and contains individuals buried with finely crafted pottery, stone tools pipes and items of exotic raw materials and may symbolize class differentiation (Perry 1996).

3.5.1.3.3 Late Woodland (A.D. 540-1000)

Though regional interaction continued, exotic trade declined in the Late Woodland (Perry 1996). Small dispersed settlements were common, though larger habitation sites were known. As Petyon (2001:3-9) stated "the purported fissioning of productive units during the Late Woodland period has been described by many researchers (e.g., Asch and Asch 1985; Benn and Rogers 1985; Green 1987; Hall 1980; Kelly et al. 1984; McConnaughy et al. 1985; Markman 1991)". This breakdown of the Hopewellian Interaction Sphere resulted in less elaborate ceramics and burials. However, some new innovations are noted, such as the bow and arrow. The use of the bow and arrow significantly altered hunting and may have increased warfare. Klunk and Koster point types are side and corner notched, respectively, and were used as arrow points. Later, more simple triangular formed Madison points were utilized (Cunning et al. 2009). Pottery becomes thinner walled and is often punctated, cord marked, cord impressed, or cord roughened. More processing areas for plant foods are noted, with domesticated plant remains, including maize, found at a growing number of sites (Cunning et al. 2009).

3.5.2 Late Prehistoric Culture (A.D. 1000-1650)

Over much of the eastern United States, tribal organization is common at this time. In the Midwest, the Mississippian and Oneota complexes are well defined as tribal societies; however, the paucity of archeological research in the eastern Iowa area limits what is known about the area at this time. Though the Oneota tradition dominates eastern Iowa there are certain areas with no artifacts dating to this time period, begging the question of weather these areas were utilized at that time (Peyton 2002). The Late Prehistoric period in Iowa includes four distinct cultures: Great Oasis, Mill Creek, Glenwood, and Oneota (Alex 2000).

The four Late Prehistoric Cultures mark the introduction of semi-permanent villages centered on corn farming. In addition, the introduction of maize and bean agriculture solidified the semi-permanent village settlement pattern. Great Oasis sites have been discovered along lakeshores and floodplains of rivers and streams. Seasonal campsites during the summer with communal bison hunts characterize the pattern of settlement for the Great Oasis culture, as well as the Mill Creek culture. Mill Creek villages were located in northwest Iowa, and consisted of individual earthlodges and internal storage pits (Alex 2000; Schermer et. al. 1995).

Maize horticulture, along with hunting and foraging, were typical of the Oneota culture (Benn 1989; Gibbon 1974; Henning 1970). Shell tempered pottery with trailed designs, small triangular points, and large villages with storage pits and trade materials are indicative of the period (Peyton 2002). Tiffany's (1979, 1982b) overview of 22 Oneota sites around Burlington, led to the description of two phases: Burlington (A.D. 1300s) and Kelley (A.D. 1500s). Others (Moffat and Moffat 1988) suggested that Moingona phase occupations are between A.D. 1100 and 1420. Major sites types are large villages and small habitation sites. Two alternatives have been suggested to explain these living situations. In the first model, the villages are the base camps with smaller sites used as seasonal habitations for that same group. Alternatively, the village is surrounded by hamlet occupations (Peyton 2002).

3.5.3 Contact Period (1682-1832)

The Illniwek, Ioway (Iowa), Sauk (Sac), and Fox tribal entities occupied southeastern Iowa during the Contact period. The Mississippi River and its tributaries were home to many of these tribes and their subtribes, or bands. The Ioway and Sauk lived near the mouth of the Des Moines River and near the American Fur Company trading post at Fling Hills (now Burlington) in the late eighteenth and early nineteenth centuries. A series of treaties with the U.S. government ended Native sovereignty between 1825 and 1832.

The Illiniwek inhabited the Upper Mississippi Valley in southeastern Iowa and the French were the first to encounter them around 1670 (Calendar 1978; Temple 1966; Peyton 2002). The Illiniwek eventually banded together in large villages along the Illinois River, having sought protection from the French by aligning with them. The Iroquois War displaced many of the Illiniwek, who “seem to have withdrawn from their trans-Mississippi territories before 1700” (Peyton 2002:3-11). Temple (1966) and Calendar (1978) both suggested that the Illiniwek cultivated corn, beans, and squash. Horses and firearms aided in large-scale bison hunts. They occupied long houses in villages, with temporary summer housing in the uplands and temporary camps used for hunting, trapping, and trading (Peyton 2002).

Sometime prior to 1700, the Ioway moved west into areas including the Mississippi River Valley (Tucker 1942). In addition to maize and bison, they relied on trade to diversify their diet. During the War of 1812, they sided with the British but were severely affected by European wrought disease. Treaties between 1824 and 1830 involved cessation of land to the U.S. and their move to a reservation west of the Missouri River in Kansas (Peyton 2002).

The Fox and the Sauk were both Algonquin tribes. The Fox were involved in the only documented military altercation between Native Americans and Europeans during the colonial period (Peyton 2002). The Fox began to raid Native American (Ojibwa and Eastern Dakota) fur traders using the Fox-Wisconsin waterway, which connected the Great Lakes to the Upper Mississippi River. The French, along with their Native allies, “assaulted a Fox and Sauk winter bivouac on the Des Moines, 60 leagues above its junction with the Mississippi” (Peyton 2002; Temple 1966).

Originally from the Green Bay area, conflicts caused the Sauk to join the Fox to resettle along the Upper Mississippi River. The Sauk and the Fox combined forces and controlled most of eastern Iowa by the late

1700s (Petyon 2001). New tensions regarding the pelt and fur trade after the Louisiana Purchase led to aggressive attacks and counter-attacks, with Europeans favoring and threatening Native American removal from the area.

3.5.4 Historic (Pre-IAAAP Era)

3.5.4.1 Southeastern Iowa and the Upper Mississippi Valley Borderlands (1682-1832)

Jesuit missionary Pere Jacques Marquette and French trader Lois Joliet were the first known Europeans in Iowa and the first to enter the Fox-Wisconsin waterway trade route in the summer of 1673. Spurred by this initial foray into the area, by the early 1700s fur trade and missionary work was being conducted up and down the Mississippi River. Fur trade in the Upper Mississippi Valley, controlled by the British, was taken over by Americans when the British abandoned posts in the southwestern Great Lakes. Between 1785 and 1822, Fort Madison (1808) and Prairie du Chien (1816) were used to establish factories, as the "United States attempted to monopolize the western fur trade" (Peyton 2002). St. Louis became the main hub for fur trade in the area after the War of 1812.

3.5.4.2 Euro-American Immigration and Settlement (1830s-1940s)

The Midwest was settled originally through waterways, as the first major settlements were on major rivers and streams, including the Mississippi, the Skunk, and the Des Moines. An environment containing both forest and prairie was considered most desirable because of timber resources and fertile soils. Hence, open prairie lands were not settled until the late 1830s (Peyton 2002).

The next phase of settlement is referred to as "spread" phase (Hudson 1969) and took place between 1830 and 1870. Widespread immigration, commercial agriculture, and railroad construction are the hallmarks of the era. To keep up with demand for moving agricultural products, transportation had to be improved. By the 1860s, railroads were being constructed west from Burlington. As Peyton (2001) noted, "land speculation ran high and reached epidemic proportions during the years leading up to the panics of 1837 and 1857." The number of farmsteads in the IAAAP area was at its peak.

The method for land parceling was outlined by the Land Ordinance of 1785 and included "rectangular rather than metes and bounds surveys based on 6-mile square townships of 36 640-acre sections; reservation of part of the public domain for financing education; and the sale of public lands to private owners in fee simple. Land was auctioned off by the General land Office at prices starting at $1.25 an acre with a minimum parcel size of 40 acres" (Peyton 2002:3-15). Real estate speculation, along with claim jumping, trick resales, and false claims, were part of frontier society (Antrobus 1915; Billington 1945). Peyton (2001:3-15) stated that "a cursory review of land entry records suggests that a significant proportion of the original land claims in the Des Moines County region were made for speculative purposes".

Hudson calls the next era the "competition" phase, which spanned the 1870s. The decline of wheat production, coupled with a call for greater crop diversification, led agriculturalists to corn farming. Corn was used to feed livestock and people (mostly as corn meal). Corn was a diet staple during these times (Anderson and Brown 1952; Hewes and Jung 1981).

The aforementioned railroad development, along with agricultural endeavors and a steady stream of immigrants, combined to spur urban growth in the late nineteenth and early twentieth century. Manufacturing grew after the 1870s and the automobile and the construction of new roads and highways made travel and marketing easier. By around 1920, corn and soybeans were the principal crops and were

fed to cattle and hogs. Though much of the corn was used to fed livestock, corn was shelled, dried, and ground into meal for human consumption. Around this time, population growth peaked in the area.

3.5.5 History of the IAAAP

The lack of military ammunition facilities in the United States during the 1940s, with the threat of war looming, was problematic. As noted in Peyton (2001:3-17), Thomson and Mayo stated:

> Only a handful of small plants were making propellant powder and high explosives, and there were virtually no facilities for the mass loading and assembling of heavy ammunition. American industry was just beginning, through educational orders, to learn techniques for forging and machining shells and producing intricate fuze mechanisms. The only sources for new artillery ammunition were Frankford and Picatinny Arsenals, while a few ordnance depots were equipped to renovate old ammunition. Private (military) ammunition plants did not exist, and, because of the specialized nature of the process, there were no commercial plants that could be converted to ammunition production.

Between the summer of 1940 and December of 1942, the U.S. Ordinance Department created 60 plants to help build bombs, mines, artillery shells, and other explosives. These facilities were required to meet the following parameters for safety and efficiency (Peyton 2002):

- Should be a mid-continent site, in order to insulate it against enemy bombardment;
- Should be in close proximity to rail lines
- Should have available water and power supplies adequate for the load-pack-assembly process;
- Should have an adequate labor pool close at hand;
- Should be remotely situated from large population centers; and
- Should have large tracts of land available in order to permit safe distance buffers between both plant and storage facilities.

The IAAAP was one of the first of these facilities constructed. The outskirts of Burlington, Iowa met the above listed criteria, as it was in the middle of the U.S., had access to rail lines, was located along two sources of water (the Mississippi and the Skunk rivers), had a population of about 25,000, and was surrounded by farmland (Peyton 2002). The government purchased approximately 20,000 acres and in 1941, construction began and was completed nine months later. The government condemned 200 farmsteads, six school districts, churches, cemeteries and the Des Moines County indigent farm (Peyton 2002). The majority of buildings were razed; however, the Shiloh Church Cemetery was saved after public outcry (Peyton 2002). Day and Zimmermann of Philadelphia operated the plant. Though World War II ended in 1945, and Day and Zimmermann's contract ended in 1946, the plant continued to churn out products through the Korean Conflict in the late 1940s. The plant was operated by the government until January of 1951 when Silas Mason Company of New York became the new manager (Peyton 2002). In 1947, the Silas Mason Company had run a classified line for the Atomic Energy Commission. Nuclear grade weapons were produced at IAAAP until 1975 (Peyton 2002).

Between the end of the Korean Conflict and the beginning of the Vietnam War, production of conventional weapons at the Plant was light. However, by 1967, “production and employment figures far surpassed even those set during the Korean Conflict” (Peyton 2002:3-20). Having been in operation for over 25 years, machinery and equipment was beginning to age and parts became harder to find. Major

renovation and updating was undertaken in the early 1970s. Some areas were completely rebuilt, while others were tweaked to accommodate new products, such as anti-armor munitions and guided missile warheads (Peyton 2002).

American Ordinance, the current contractor-operator of the IAAAP, is a major manufacturer of military ammunition for the government, overseeing 41,000 acres of government owned property and producing more than 15 million rounds per year (American Ordinance 2012). American Ordinance oversees operations and privatization of parts of the Plant; some of the production facilities are available to lease. They also seek bids on raw land within Plant boundaries (Peyton 2002). In addition, they provide x-ray, chemistry, environmental, and meteorology labs, secured storage space, conduct research and development, and test fire procedures (Peyton 2002).

3.6 NATIVE AMERICAN GROUPS

This section summarizes those Native American tribes that have an interest in the prehistoric cultural resources of Iowa Army Ammunition Plant.

3.6.1 Ethnohistorical Overview

The following federally recognized groups have primary interest in IAAAP (see Appendix B):

Iowa Tribes

- The Iowa Tribe of Kansas and Nebraska
- The Iowa Tribe of Oklahoma

Sac and Fox Nation

- The Sac and Fox Tribe of the Mississippi in Iowa
- The Sac and Fox Nation of Missouri
- The Sac and Fox Nation of Oklahoma

There are other tribes that could potentially have interests in sites and places that have traditional religious and cultural importance in the area of IAAAP; these tribes will be consulted with as appropriate.

3.6.1.1 The Iowa Tribes

While the word Iowa is derived from the French term for "tribe," the Iowa people historically referred to themselves by a term meaning gray snow: "Bah-kho-je." This term was likely taken adopted due to their dwellings, which were often covered in soot-tinted snow in the winter months. The Iowa tribe, whose language is a Chiwere dialect of the Sioux dialect, located to southeast Iowa and the banks of the Des Moines River sometime in the late eighteenth century. A hunter-gatherer economy sustained the Iowa tribe, who relied mainly upon bison and maize cultivation, but also supplemented their way of life by trading within the French trade network (Waite 1996).

With onslaught of Euro-American diseases, combined with continued harassment by other Native American groups, the role of the Iowa tribe in trade and diplomacy dwindled. As white settlers encroached upon the Iowa, their lands were ceded in 1824, and again in 1836 and 1838. The Iowa tribe lands were reduced to a strip of land near the Missouri River in Kansas. This strip was shared with the Sac and Fox tribe, which caused discontent amongst portions of the relocated groups. Permission was

granted to the disgruntled to relocate into the Oklahoma Indian Territory in 1878. As a result of this relocation, there are now two branches of the Iowa Tribe (Peyton 2002).

3.6.1.2 Sac and Fox Nation

Though commonly known as the Sac and Fox Nation, this Algonquian people indigenous to the Western Great Lakes Region is federally recognized as the "Sac and Fox Tribe of Indians of the Mississippi River in Oklahoma." Though similar in culture, customs, and language, the Sac and Fox were two distinct tribes. The Sac (Sauk), or Thakiwaki (meaning "people coming forth from the water"), and Fox, or Meskwaki (meaning "people of the red earth") was a misnomer applied by the U.S. government during treaty negotiations in 1804 (McCollum n.d.).

The Sac and Fox, like the Iowa tribe, also augmented their hunter-gatherer economy by the fur trade. By the middle of the eighteenth century, the Sac and Fox had relocated from their indigenous lands to southeast Iowa. With white settlement, however, the two tribes were to be relocated once again to Kansas, and then to the Indian Territory in the 1870s (McCollum n.d.).

Today, the Sac and Fox tribes are recognized under the broader term "Sac and Fox Nation." The Nation subdivisions with an interest in IAAAP are the Sac and Fox Tribe of the Mississippi in Iowa, the Sac and Fox Tribe of Missouri, and the Sac and Fox Tribe of Oklahoma.

3.6.2 Federal Recognition

The Iowa Tribes and the Sac and Fox Nation are Federally recognized tribes with affiliations to the IAAAP region. As described in Section 3.6.1, the Iowa Tribe and Sac and Fox Nation both once inhabited the area presently occupied by IAAAP (Waite 1996; Peyton 2002; (McCollum n.d.). Appendix B contains the name and address of the Iowa Tribe and Sac and Fox Nation points of contact for NAGPRA consultation with IAAAP.

4.0 INVENTORY

This section presents a summary of the cultural resources known to exist at IAAAP. The section is organized in three major elements:

- *A discussion of significance standards* (see Section 4.1) delineates specific criteria for assessing the NRHP eligibility of all cultural resources that are found at IAAAP. Significance standards are defined for architectural properties, historic and prehistoric archeological sites, as well as cultural properties and sacred sites;

- *A discussion of previous work* (see Section 4.2) summarizes earlier management plans, inventories, surveys, NRHP eligibility assessments, and other cultural resource studies that have been conducted at IAAAP; and

- *An inventory review* (see Section 4.3) summarizes IAAAP known cultural resources, including buildings, structures, archeological sites, cemeteries, and other types of properties. This section is a synthesis and should not be used as primary data; in every case, the management of particular resources should refer to and use the primary documents, including site reports, maps, and databases.

4.1 CRITERIA FOR ESTABLISHING SIGNIFICANCE

This section specifies NRHP eligibility standards at Iowa Army Ammunition Plant for both architectural properties and prehistoric and historic archeological sites. A discussion of significance criteria for traditional cultural properties is also included.

Cultural resources include a variety of types. In general, a cultural resource is any place, site, building, structure, or object, or collection of these, that was built or fashioned by people. Not all cultural resources belong to the more restricted class of historic properties. Historic properties are those resources that are actually listed on the NRHP, as well as those not yet listed but that are eligible for listing. Other types of cultural resources may include TCPs and sacred sites. To be eligible for or listed on the NRHP, a property would normally be at least 50 years of age before consideration. However, a property can be more recent (less than 50 years of age) if it meets the criteria for exceptional significance (see Section 4.1.2.3).

The NRHP is the official Federal list of cultural resources important to American history, archeology, and culture. It consists of districts, sites, buildings, structures, landscapes, and objects significant in American history, architecture, archeology, engineering, and culture. One kind of cultural significance a property may possess, and that may make it eligible for inclusion on the NRHP is traditional cultural significance. All NRHP properties have been found to be significant to the prehistory or history of their community, state, or the nation. In states with approved state historic preservation programs, the State Review Board reviews and approves National Register nominations before they are submitted to the NPS.

4.1.1 Types of Cultural Resources

A *site* is the location of a prehistoric or historic event or occupation. Some sites are historical in character, such as a famous battlefield (Gettysburg), the place of a significant treaty signing (Guadelupe Hidalgo), or the place of an important event. Many other sites are archeological in character. For these sites, minimal (or no) written or historical information exists and their importance must be determined through archeological examination. More than 300 archeological sites are known to exist at IAAAP, but

not all are NRHP eligible (these are discussed in Section 4.3.2 below). The site of a TCP does not have to be the product of, or contain, the work of human beings in order to be classified as a property. Therefore, a TCP may be classified as a "site" as long as it was the location of a significant event or activity, regardless of whether the event or activity left any evidence of its occurrence.

A *traditional cultural property* is a location defined by local culture or by religious beliefs. It may be evidenced by a ring of stones on a sacred knoll or hill top, it may be a distinctive natural feature such as spring or mountain, or it may be a zone or district where subsistence resources, such as nuts and game, or sacred items, such as eagle feathers and quartz crystals, were traditionally collected or gathered. TCPs may also include buildings and structures; however, not all TCPs are eligible for the NRHP. TCPs are also protected under AIRFA, EO 13007, and NEPA. No traditional cultural places are known to exist at IAAAP.

A *building* is a structure created to shelter human activities such as a house, barn, or factory. If the building is in such total disrepair to be considered a ruin, then it may be considered to be an historic archeological site. Historic buildings may be in the same place as a site and the building may or may not be related to the site. For example, a 1880s church may be associated with the site of a historic cemetery and be unrelated to a 3,000-year-old Native American encampment buried beneath the cemetery. Buildings may also be TCPs.

A *district* is a geographically definable area with a concentration of cultural resource properties that are united by past events, or aesthetically by plan or physical development. Most often, districts contain several historic buildings, such as the Hancock Shaker Village in Massachusetts. However, TCPs consisting of a concentration, linkage, or continuity of buildings or structures may also be classified as a district. Districts may be eligible for the NRHP. While at one time, the Iowa SHPO suggested that the entire IAAAP facility is eligible as a district, no formal determination or survey of such a district has yet been made.

A *structure* is an engineering edifice designed to aid human activities, such as a road, bridge, or canal. Military structures include communication antennas, launch vehicle test stands, and other engineered facilities. Many historic structures exist at IAAAP. Again, structures may also be classified as TCPs.

The term *object* is used to distinguish from buildings or structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Although it may be, by nature or design, movable, an object generally must be associated with a location from which it derives its significance. Its value as a cultural resource may be functional, aesthetic, cultural, historic, or scientific, or a combination of these. An object may also be classified as a TCP if it is associated with a significant tradition or use. Examples of objects include military weaponry such as a cannon or missile, prehistoric artifacts, historical items such as documents or a church bell, and Native American sacred. No such objects have been identified to date at IAAAP.

4.1.2 NRHP Significance Criteria

To be listed in the NRHP, properties (including sites, buildings, structures, objects, and TCPs) must have both physical integrity and historic significance (36 CFR Part 60). Integrity is the authenticity of a property's historic identity and is evidenced by the survival of physical characteristics that existed during the property's prehistoric or historic period. Qualities that make up integrity include location, design, setting, workmanship, feeling, or association. A property must resemble its historic appearance as well as its physical materials, design features, and aspects of its construction dating from the period it attained its significance. For archeological sites, integrity is the degree to which remaining evidence can provide important information.

Historic significance is the importance of a property to the history, architecture, archeology, engineering, or culture of a community, state, or the Nation. In addition to physical integrity, there are four Criteria for Evaluation, designated Criteria "A" through "D". A property must meet at least one of the following criteria for listing in the NRHP (36 CFR 60.1; National Register Bulletin 15, 16B:

A. Be associated with historic events or activities that have made a significant contribution to the broad patterns of our history;

B. Be associated with the lives of persons significant in our past;

C. Embody the distinctive characteristics of a type, period, or, method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguished entity whose components may lack individual distinction; or

D. Have yielded or be likely to yield important information about prehistory or history.

Properties that may be considered for evaluation include buildings, structures, objects, sites, districts, and TCPs. Buildings are created principally to shelter some form of human activity. Structures are made for purposes other than creating human shelter. Objects are primarily artistic in nature, are relatively small in scale, or are simply constructed. Although an object may be movable, it is usually associated with a specific setting or environment. Sites are locations of significant events, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished. The location itself possesses historic, cultural, or archeological value, regardless of the value of any existing structure or the property. Districts are a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. Similar to historic properties, TCPs and sacred sites must be evaluated with reference to the NRHP Criteria for evaluation (36 CFR Part 60.1). The National Register Bulletin 38 outlines the steps necessary for such evaluations.

4.1.2.1 Historic Context

The significance of a property is determined by historic context. A historic context is the interrelated set of conditions under which the property existed or was created or used. For NRHP purposes, historic context includes information about historic trends and properties that are grouped by an important theme in the prehistory or history of a community, state, or nation during a particular period of time. These are organized by theme, place, and time. Historians, architectural historians, folklorists, archeologists, and anthropologists use different words to describe historic context (e.g., trend, pattern, theme, cultural affiliation), but they all refer to the same concept. A fundamental premise to all these approaches to historic context is that resources, properties, and events in history do not occur in a vacuum. They are part of larger trends or patterns. To evaluate a property within its historic context, it is necessary to determine the following:

1. What facet of local, state, or national prehistory or history is represented;
2. Whether that facet is significant;
3. Whether the property has relevance or importance in illustrating the historic context;
4. How the property illustrates that historic context; and
5. Whether the property possesses the physical features necessary to convey the aspect of prehistory or history with which it is associated.

4.1.2.2 Special Considerations

The following types of properties do not ordinarily qualify for inclusion on the NRHP: (1) cemeteries and the birthplaces or graves of historical persons; (2) properties owned by religious institutions and those used for religious purposes; (3) properties that have been reconstructed or moved from their original locations; (4) properties primarily commemorative in nature; and (5) properties less than 50 years old. However, these types of properties may be eligible for the NRHP if they are integral parts of eligible historic districts or if they fall under certain categories called "Criteria Considerations" (36 CFR 60.4; National Register Bulletin 15). The seven Criteria Considerations (A through G) are as follows:

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance;

B. A building or structure removed from its original location but that is significant primarily for architectural value, or that is the surviving structure most importantly associated with a historic person or event;

C. A birthplace or grave of a historical figure of outstanding importance, if there is not an appropriate site or building directly associated with his or her productive life;

D. A cemetery that derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design feature, or from association with historic events;

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;

F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; and

G. A property achieving significance within the past 50 years if it is of "exceptional importance." This consideration is discussed further below.

4.1.2.3 Properties Less Than 50 Years Old

Generally, it is not possible to determine overall historic importance soon after an event occurs. For this reason, the arbitrary 50-year guideline was designed as a filter to ensure that enough time had passed to evaluate a property within its historic context. However, in rare cases, an event or building is so exceptional that it can be recognized well before the 50-year waiting period. In such cases, Criteria Consideration G is applied. If the exceptional significance of the property can be clearly documented, the property may be eligible for inclusion on the NRHP. Such nominations must clearly justify a building's or event's exceptional importance and must present sufficient evidence to permit a dispassionate evaluation of the property (Sherfy and Luce 1998).

4.1.3 Criteria for Architectural Properties

Buildings and structures may meet NRHP eligibility criteria, listed in Section 4.1.2, for their ability to convey significant information about events or patterns of events contributing to the understanding of American history, their association with the lives of significant persons in our past, their distinctive architectural characteristics, and information potential. A building, as identified in National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation (National Register of Historic

Places 1997), is any construction that was primarily created to shelter human activities. The term "building" may also refer to a "historically and functionally related unit, such as a courthouse and jail or house and barn" (National Register of Historic Places 1997). The term "structure" is distinguished from a building by its functional construction, which is usually intended for a purpose rather than a shelter. For a building or structure to be eligible for the NRHP, not only must it be significant for at least one of the criteria for evaluation identified previously in Section 3.1.2, it must also retain its basic structural elements and overall historic appearance. Buildings and structures that fail to include all of their fundamental building elements are considered to be ruins and are classified as "sites."

4.1.3.1 Architectural and Historical Significance

Buildings and structures are eligible for NRHP listing meeting Criterion A, listed in Section 4.1.2, if associated with significant historical events. Properties that are identified as eligible under Criterion A should be discussed in consideration of an associated historic context. However, each property does not require its own historic context. Rather it needs to be demonstrated that the property is associated with some aspect or association that itself is considered important. Properties are eligible under Criterion A if they can be directly associated with an event or pattern of events that made significant contributions to the broad patterns or trends of American history. Eligible properties must also be associated with one or more events outlined in the historic contexts. As with all NR criteria, Criterion A requires that eligible properties retain historic integrity. Because Criterion A evaluates properties based on their "associative" value, it is necessary to determine the nature and origin of resources as well as their historic context(s) and individual histories as much as possible. The "mere association" with historic events or trends is not enough to nominate a property solely under Criterion A. The property must also be considered important for its specific association.

Buildings and structures that are eligible for NRHP listing because of their association with lives of persons significant in our past meet Criterion B (person), listed in Section 4.1.2. Person significant in our past refers to individuals whose activities are demonstrably important within a local, state, or national historic contexts. Such properties generally illustrate rather than commemorate a person's important achievements. Several steps are necessary for determining a property as eligible under Criterion B. First, the importance of the individual must be identified and documented. Second, the length and nature of the association of the individual with the property must be demonstrated. And, third, comparisons to other possibly related properties must be made.

Buildings and structures that are eligible for NRHP-listing because of their architectural or engineering significance meet Criterion C (design or construction), listed in Section 4.1.2. A property's significance relates to its association with the historic context in which the property is being evaluated. Eligible properties meeting Criterion C may reflect distinctive visual characteristics that relate to a specific type, era, or mode of construction, may represent the work of a master architect or craftsman, or it may possess unique artistic significance. To be eligible under Criterion C, a property must retain at least one of the above characteristics. The only exceptions to this rule are properties included in a NRHP district nominated under Criterion C. Resources within a district are considered eligible if they portray a "significant and distinguishable entity." They need to be eligible on an individual basis. All NRHP properties, whether they are in a district or not, must retain integrity as discussed previously.

Although not generally eligible for NRHP listing under Criterion D (information potential), listed in Section 4.1.2, buildings and structures may themselves be, or have been, the principal source of the important information. In such a case, it must be demonstrated that the property has information that can contribute to our understanding of human history and this information must be considered important in terms of historic contexts or archeological research.

4.1.3.2 World War II-Era Historic Context

World War II-era properties, all of which are at least 50 years of age (built prior to 1963), must meet at least one of the four NRHP significance criteria and retain integrity in order to be determined eligible for NRHP listing (see Section 4.1.2). As discussed previously, significance can be determined only after historic contexts have been identified. Individual buildings, structures, landscape features, and districts are evaluated for their direct association with the installation's significant themes and period of significance.

4.1.3.3 Cold War-Era Historic Context

Properties less than 50 years old (those built after 1962) at IAAAP must exhibit qualities of exceptional significance associated with Criterion Consideration G, listed in Section 4.1.2.2. The 50-year guideline provided by the Secretary of the Interior generally ensures that listed properties are truly "historic". That is, they are not listed merely because of an association with passing modern issues. For a property to be listed under Criterion Consideration G, it must have achieved exceptional significance within the last 50 years (Sherfy and Luce 1998). Exceptional significance means that the eligible property must exhibit "deliberate [and] distinct justification" of its extraordinary importance. In addition, eligible properties less than 50 years of age must meet one of the four evaluation criteria discussed previously in Section 3.1.2.

Many Cold War-era military properties could conceivably be categorized as having exceptional significance provided that they retain sufficient integrity. Therefore, it is necessary to provide stricter guidelines for evaluation of properties possibly eligible for their association with this broad historic context. Eligible properties relating to the Cold War-era may reflect the themes of strategy or policy, weapons deployment, and research and development. It is not enough that a potentially eligible Cold War-era property be unique. The resource also must be strongly associated with a specific military endeavor in a manner that is recognized by the general public. *Looking Between Trinity and the Wall: Army Material Command Cold War Material Culture Within the Continental United States 1945-1989* is the principal historic context used for evaluating such resources by the Army (Gaither 1997).

4.1.4 Criteria for Archeological Properties

Archeological properties can be either prehistoric or historic resources. Physical integrity and research value are two important aspects for evaluating the significance of an archeological property.

4.1.4.1 Physical Integrity

For both prehistoric and historic archeological sites, integrity is essential. Archeologists are interested not only in archeological materials, but in the relationship or association among them. As noted above, integrity generally means that the site contains evidence that can provide important information about prehistory or history. In practice, archeologists assess integrity by the level of disturbance to ground by natural processes, such as erosion, or by human activity, such as construction, plowing, or earth moving. If both horizontal and vertical movement of the sediments has substantially disrupted the natural stratigraphy or the stratigraphy that resulted from historic use of a site, little information can be extracted.

4.1.4.2 Research Value

Research value is more difficult to measure. Unlike popular expectations of what makes an archeological site interesting or important, no single factor (size, age, quantity of artifacts present, or even uniqueness) determines its overall research value. These factors are relevant only in relation to the historic context of the site and the particular research questions that are developed from the historic context by investigators.

In this ICRMP, two sets of research issues are presented as standards for evaluating the significance of archeological sites. These research issues are drawn from the historic contexts that have been developed for prehistoric and historic southeastern Iowa. They are the basis for specific research questions that can be formulated when a given site is to be investigated. The first set of research issues includes the fundamental questions archeologists must ask to define a site. If these basic questions are answered, then an investigator can address a second set of research issues that is more specific to the cultural history of the region or is focused on processes of past human behavior.

4.1.4.3 General Research Issues

For a prehistoric or historic archeological site, the following five general research issues must be addressed to evaluate its significance or to provide a basis for further research.

- *Site location, boundaries, and size*. Where is the site? What is the extent of the site? What topography and environment are included? Does it border or overlap with other sites? What is its configuration and spatial organization? What is its depth? What is its physical, condition? Can estimates of the population of the site be made? How is the site related to other sites in the region?

- *Site chronology*. When was the site occupied? Was it occupied once or repeatedly? Was it occupied seasonally? What modifications took place over time? How has the site been affected by natural processes since occupation? Is there archeological material that can be dated by chronometric methods (for example, radiocarbon dating)?

- *Site function*. What did people do here? Is there evidence of particular activities in certain portions of the site? How did people use the location or resources of the site for their purposes? Was the site used for a single activity or was it more generalized? How do the activities conducted here relate to what is known about the way of life of people in the past?

- *Cultural affiliation*. What cultural group occupied the site? Can archeological materials reveal information about the way of life of the occupants that is specific to members of a particular group (for example, ethnic group, regional population, social class, profession, gender)? Is there evidence of occupation by more than one cultural group? Is there evidence of trade with or travel to other regions?

- *Environment*. What was the environment when the site was occupied? Is there evidence of modification of or adaptation to the environment by the occupants? What resources could have been used by the occupants for their subsistence or other purposes? Is there evidence relating to the health and population structure of the occupants?

Historic sites have the additional advantage of having been produced by people who often left records about the site or information that can place the site in a broader picture. Part of research at historic archeological sites includes examining primary and secondary documentation and, if possible, interviewing persons knowledgeable about the site.

4.1.4.4 Research Issues for Prehistoric Sites

High-sensitivity areas for prehistoric cultural resources are based first and foremost on access to water, with a reasonably level topography and ridge crest locations being of added importance. Accordingly, the highest density of prehistoric sites should be found within 1,000 feet of streams and along the tops of the interfluves, which are common throughout IAAAP. Most favored areas for both short- and long-term

habitation are places of relatively level topography that occur near water sources, particularly those associated with stream confluences. Those areas considered moderate to high in prehistoric site potential would be lower-order ephemeral drainage areas and springs that provided water sources at different times of the year. Archaic sites are likely to occur around ridge crests commanding advantageous viewpoints over the surrounding terrain, especially with respect to short-term hunting or extractive camps and isolated residences.

Those areas having low prehistoric cultural resources would be lands lacking access to water or that are on steeper slopes. Undisturbed areas that are beyond the limits of the high-sensitivity areas are considered to have low sensitivity for prehistoric sites as well.

It is important to note that a number of IAAAP's archeological sites are situated within agricultural areas that have been plowed and cultivated for more than 100 years. Sites situated in plowed areas have the potential to retain some degree of historical integrity in that the archeological remains are disturbed only within the plow zone; below that zone, cultural materials may remain intact. Additionally, rare sites, such as PaleoIndian cultural period sites that are wholly contained in the plow zone, are still considered eligible under Criterion D for their potential significance; site integrity is not always the deciding factor in site evaluation. Therefore, the probability for finding archeological sites in cultivated areas is moderate to high (Peyton 2002).

4.1.4.5 Research Issues for Historic Sites

From the early to mid-eighteenth century, sites preferred by frontier homesteaders were, in all probability, not much different from aboriginal settlement preferences. Proximity to well-drained soils, water, and wood stands for building and fuel supplies were of particular importance. With the development of the agricultural, market-oriented economy prior to the early frontier period, however, the areas preferred for later historic settlement may have differed considerably from ones preferred by aboriginal populations: more sophisticated lifestyles had evolved by then, nurtured in part by Euro-American adaptations. Despite such change in preference by the latter-day settlers; however, it is believed that earlier frontier settlements still occurred within areas designated as high in sensitivity for prehistoric sites.

During the first years of settlement (ca. 1833-1838), homesteads situated on present-day IAAAP land were not cartographically documented according to land ownership (Waite 1996). Moreover, there was a 35-year gap between the first General Land Office records (1838) and the Andreas atlas (1873), and that, undoubtedly, would have left a number of farmstead locations undocumented. Accordingly, the precise locations of early homesteads are not well known. Data is necessary to establish those particular variables of early farmstead siting and any noticeable differences in settlement patterns. In other regions, preference for farmstead siting includes such issues as slope, drainage, water access, and soils (Louis Berger & Associates, Inc. 1990, 1991); protection from prevailing winds and view shed (Manning 1984); prevailing ethnic or local tradition (Allen 1852); and evolving property lines (Wacker 1975). It is believed that by the 1870s, the factors influencing location of a farmstead would have included an access to developing market-oriented economy and an adequate road network, as well as proximity to population centers hosting such services as saw and grist mills, potteries, tanyards, and blacksmith shops. The large, relatively undisturbed landscape of IAAAP may be particularly suited for research to address the ongoing debate of the nineteenth-century settlement in Iowa and the Central Plains (Peyton 2002).

Another important historic context to consider for IAAAP is the Underground Railroad, the nineteenth century secret system of safe houses and routes, which slaves used to escape to free states or to Canada. Dr. Edwin James, noted surgeon, botanist, geologist, and linguist, operated a safe house on his property, which was on land associated with IAAAP, from about 1838 until his death in 1861.

4.1.5 Criteria of Other Types of Resources

In addition to cultural resources such as archeological sites, buildings, structures, and objects, a broad category of resources exist that include sacred sites (which may be protected by AIRFA), NAGPRA-related items (see Section 4.1.3), and TCPs or lifeways that could be considered by NEPA. The following subsections provide descriptions for these properties, suggestions for identification and consultation of such properties, and their evaluation.

4.1.5.1 Descriptions of Properties

As discussed in National Register Bulletin 38 (USDI n.d.:1) a "traditional cultural property can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community". The physical manifestation of these resources is often subtle and may be easily overlooked during an archeological survey, especially by field workers who have not been trained to look for such places. TCPs and sacred sites sometimes occur on physiographic features such as springs, knolls, hilltops, or caves.

"Examples of properties with such significance include: (1) a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world; (2) a rural community whose organization, buildings, structures, or patterns of land use reflect the cultural traditions valued by its long-term residents; (3) an urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices; (4) a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and (5) a location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historical identity." (USDI n.d.:1).

4.1.5.2 Issues of Concern

A number of issues concerning Native American participation in the identification of these properties should be kept in mind (AR 200-1), including the following:

- The protection of culturally sensitive information, such as archeological site locations, locations of sacred sites, and religious or other cultural properties;
- Maintaining reasonable access to religious and sacred sites and resources necessary for other cultural ceremonies;
- Treatment of human remains in a culturally sensitive manner by limiting the study or display of human remains affiliated with a certain tribal group;
- Numerous tribes have internal tribal regulations and other compliance policies that should be reviewed by the installation and followed where appropriate in consultation proceedings; and
- Developing a consultation schedule that affords tribal representatives sufficient opportunity to consult.

4.1.5.3 Identification and Consultation

As with other types of cultural resources, TCPs and sacred sites should be systematically addressed in programs of preservation planning and in the historic preservation components of land use plans. Given that such properties are often difficult to determine, the identification and subsequent evaluation of the property can require detailed and extensive consultation, interview programs, and ethnographic fieldwork with traditional groups who may value a particular property. Having to conduct such activities may add to the time and expense for compliance with the NHPA, NEPA, and other regulations and mandates.

Areas that may be affected by a construction or land-use project should include a reasonable effort to identify TCPs. In order to determine what constitutes a "reasonable effort", some background information about the area's history must be known to determine the likelihood that such properties may be present and whether the type of project could affect TCPs. For example, rehabilitation of historic buildings may have relatively little potential for effect on such properties. However, rehabilitation that results in the displacement of residents who place a traditional value on the neighborhood may result in effects to the property.

An early step in an effort to identify TCPs is to consult published and unpublished source material on the historic and contemporary composition of the area's social and cultural groups should be consulted. Having reviewed the available background material, the next step is to contact groups and individuals who have special knowledge about the history and culture of the area to be studied. Fieldwork to identify TCPs involves consultation with knowledgeable parties, field inspection, and recordation of locations identified as significant by such parties.

It should be noted that knowledge of traditional cultural values may not be shared readily with outsiders and should be conducted in a culturally sensitive manner, which may require the use of languages other than English, the conduct of community meetings in ways consistent with local traditional practice, and the conduct of studies by trained ethnographers, ethnohistorians, or folklorists.

4.1.5.4 Evaluation

Whether a TCP or sacred site is known in advance or found during an identification effort, it must be evaluated with reference to the NRHP Criteria for Evaluation (36 CFR Part 60) in order to determine whether it is eligible for inclusion on the NRHP. Four steps are involved in this process.

- **Step 1:** Ensure that the entity under consideration is a property. Often it is the intangible beliefs and practices that may give the property its significance. However, the NRHP does not include intangible resources. The entity evaluated must be a tangible property, such as a site, buildings, structure, or object. Beliefs and practices associated with the tangible property must, however, be considered.

- **Step 2:** Consider the property's integrity. As with all types of cultural resources evaluated to the NRHP, properties must have "integrity of location, design, setting, materials, workmanship, feeling, and association." For TCPs and sacred sites two fundamental qualities of integrity must be addressed. First, does the property have an integral relationship to traditional cultural practices and beliefs; and second, is the condition of the property such that the relevant relationships survive?

- **Step 3:** Evaluate the property with reference to the NRHP criteria. Assuming the entity to be evaluated is a property, and that it retains integrity, it is next necessary to evaluate it against the four basic NRHP criteria (36 CFR Part 60). If the property meets one or more or the criteria, it may be eligible; if it does not, it is not eligible.

- **Step 4:** Determine whether any of the NRHP criteria considerations make the property ineligible. Generally, a property is not eligible for inclusion in the NRHP if it represents a class of properties to which one or more of the six "criteria considerations" listed in 36 CFR Part 60.4 applies, and is not part of an identified eligible district.

As with any cultural resource, establishing that a TCP or sacred site is eligible for the NRHP does not necessarily mean that the property must be protected from disturbance or damage, but it does mean the property must be given meaningful consideration in project planning. Establishing that a property is eligible means that it must be considered in planning undertakings, but it does not mean that such an undertaking cannot be allowed to damage or destroy it. Consultation must occur in accordance with the regulations of the ACHP (36 CFR Part 800) to identify, and if feasible adopt measures to protect it.

4.1.6 Criteria for Cemeteries

Cemeteries do not ordinarily qualify for inclusion on the NRHP. Exceptions are made for cemeteries that derive their primary significance from extreme antiquity, distinctive design, graves of famous persons, or association with significant historic events. The cemeteries at IAAAP all date to the nineteenth century and are rural vernacular in design. Two of the cemeteries are active and still accept new interments. No famous persons are known to be buried on IAAAP, and none of the cemeteries are associated with important historic events. As a consequence, none of the special criteria apply and none of the cemeteries at IAAAP are eligible for inclusion on the NRHP.

4.2 PREVIOUS STUDIES

This section summarizes earlier cultural resource studies conducted at Iowa Army Ammunition Plant, including management plans, architectural surveys, archeological surveys, and archeological excavations.

4.2.1 Management Plans and Syntheses

Prior to this current ICRMP, there have been three management plans for cultural resources at IAAAP and two summary documents not intended as management plans (see Table 4.1).

The first plan for IAAAP cultural resource work was prepared in 1984 (Stafford et al. 1984). This document was prepared as a portion of the Development and Readiness Command (DARCOM) Historical/Archeological Survey (DHAS). As a preliminary survey, it identified 197 potential historic archeological resource sites on IAAAP. The records of the IAAAP cultural resource management files (either the Operating Contractor or the Army files) do not indicate that the SHPO was consulted or concurred with the findings and determinations of this study.

In 1996, Geo-Marine, Inc. prepared a CRMP for IAAAP that was accepted by the Army (Waite 1996). During this study, a large number of architectural resources at IAAAP (382 dating to World War II and 20 dating to the Cold War era) were identified as potentially eligible for listing in the National Register. However, a comprehensive inventory and evaluation of the 402 resources was not completed, nor was it within the scope of the 1996 CRMP plan to do so. The lists of these buildings and structures are reproduced in Appendix D of this report. In the same study, an additional 788 architectural resources constructed during the World War II or the Cold War era are described as being of unknown eligibility due to their association with significant events in American history. The records of the IAAAP CRM do not indicate that the findings regarding 1,190 resources have ever been presented to the SHPO, and no letters of concurrence were located during the records search for this ICRMP.

Table 4.1 Cultural Resource Studies at IAAAP

Year	Document Purpose	Author	Organization
Management Plans			
1984	Overview, management plan	Stafford et al.	Woodward-Clyde Consultants
1996	CRMP	Waite	Geo-Marine, Inc.
2002	ICRMP	Peyton	Earth Tech, Inc.
Summary Documents			
1984	Review of DA acquisition maps and photographs	Not identified	National Park Service
1995	NAGPRA collections summary	Not identified	USACE, St. Louis District
Architectural Property Inventories and Assessments			
1984	Historic properties report	Not identified	MacDonald and Mack Partnership
1996	Section 106 review of 121.17 acres containing residential properties	Not identified	Mason & Hangar-Silas Mason Co., Inc.
2005	Survey and evaluation of seven production lines	Griffitts	Parsons, Inc.
Archeological Studies			
1987	Reconnaissance survey, 520 acres and survey, 140 acres	Brodnicki	USACE, Omaha District
1987	Reconnaissance survey, 25 acres	Barr	USACE, Rock Island District
1989	Letter report survey, 133 acres	Hillerson	USACE, Omaha District
1991	Reconnaissance survey, 14,720 acres	Winham, et al.	Archeology Laboratory, Augustana College
1997	Intensive survey of 14 sites	Bienenfeld	Tetra Tech, Inc.
2000	Light phase II survey, acreage not identified	Bienenfeld	Tetra Tech, Inc.
2000	Reconnaissance survey, 113.6 acres	Harvey and Kolb	Center for Archeological Research at Marquette University
2002	Light phase II survey of 27 sites	Leininger and Bienenfeld	Tetra Tech, Inc.
2005	Light phase II survey of three sites	Not identified	Tetra Tech EC, Inc.
2005	Survey, 101 acres	Kolb and Harvey	Great Lakes Archeological Research Center, Inc.
2009	Letter report survey of two sites	Hinks	Michael Baker Jr., Inc.
2009	Supplemental survey, 1.15 acres	Lombardi	Michael Baker Jr., Inc.
2009	Survey, 69.8 acres	Cunning et al.	Michael Baker Jr., Inc.
2009	Survey, 44 acres	Cunning et al.	Michael Baker Jr., Inc.
2009	Letter report survey of two sites	Hinks	Michael Baker Jr., Inc.
2010	Survey, 14.6 acres	Thompson	Bear Creek Archeology, Inc.
2010	Survey, 28 acres	Cunning et al.	Michael Baker Jr., Inc.

Table 4.1 Cultural Resource Studies at IAAAP

Year	Document Purpose	Author	Organization
2010	Survey, 125.4 acres	Thompson	Bear Creek Archeology, Inc.
2011	Survey, 93.5 acres	Gooder and Blikre	Bear Creek Archeology, Inc.
2011	Survey for proposed construction of a fire and security facility	Bond and Stanley	Bear Creek Archeology, Inc.
2011	Survey for proposed closure of wells and cisterns, acreage not identified	Bond and Stanley	Bear Creek Archeology, Inc.
2012	Survey, 328.1-ft corridor	Bond and Stanley	Bear Creek Archeology, Inc.

In 2002, Earth Tech, Inc. prepared an ICRMP for IAAAP (Peyton 2002). Most of the general goals laid out in the 2002 plan have been met, though the specific goal of a comprehensive, site-wide inventory and evaluation has not yet been met.

4.2.2 NAGPRA Compliance Documents

In compliance with NAGPRA, in 1995, the U.S. Army Environmental Center (AEC) commissioned a study to locate, inventory, and assess archeological collections from IAAAP that may be subject to repatriation consultants (U.S. Army Corps of Engineers 1995). The study also compiled points of contact for Federally-recognized Native American tribes. The NAGPRA inventory completed for IAAAP identified no human remains or funerary objects as being from IAAAP that required consultation. Although no items in the collections were found to be historically connected to any specific Native American individuals or tribal groups, USACE did note that the Sac and Fox tribes occupied southeastern Iowa during the early period of Euro-American contact. Correspondence initiated by IAAAP has received no significant response, which ends the NAGPRA consultation unless unanticipated buried remains are found.

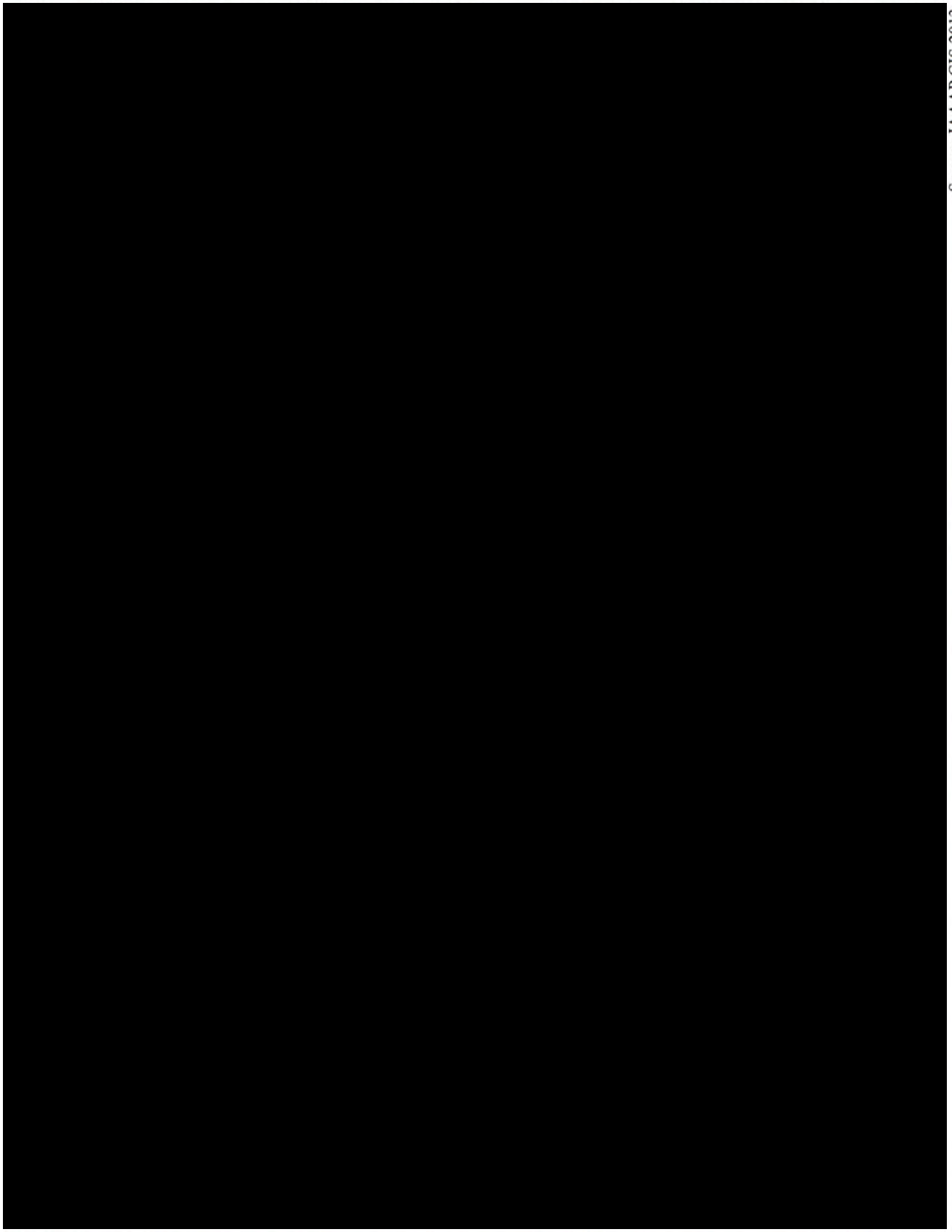
4.2.3 Archeological Studies

This section lists archeological surveys that have been completed as well as sites that have been tested for NRHP eligibility.

4.2.3.1 Surveys

Since 1987, four contractors and two colleges have conducted a total of 19 archeological surveys; the Omaha and Rock Island USACE districts conducted three additional studies (see Table 4.2). Figure 4.1 shows the locations of the previous archeological surveys.

As new projects are proposed, current cultural resource staff at IAAAP proceeds with archeological surveys as needed in areas that have yet been studied.



Source: IAAAP GIS 2013.

Figure 4.1 Locations of Previously Identified Archaeological Sites

Information regarding the location, character, or ownership of historic resources withheld pursuant to National Historic Preservation Act, Section 304, and Advisory Council on Historic Preservation regulations at 10 CFR 800.11(c).

Table 4.2 Archeological Surveys Conducted at the IAAAP 1987 to 2012

Survey Institution	Report Date	Acres	Newly Recorded Sites on IAAAP
U.S. Army Corps of Engineers	1987	140	2
U.S. Army Corps of Engineers	1987	25	1
U.S. Army Corps of Engineers	1989	133	1
Archeology Laboratory, Augustana College	1991	14,720[1]	274
Tetra Tech, Inc.	1997	Not Identified	0
Tetra Tech, Inc.	2000	Not Identified	0
Center for Archeological Research at Marquette University	2000	113.6	0
Tetra Tech, Inc.	2002	Not Identified	0
Tetra Tech EC, Inc.	2005	Not Identified	0
Great Lakes Archeological Research Center, Inc.	2005	101	13
Michael Baker Jr., Inc.	2009	Not Identified	0
Michael Baker Jr., Inc.	2009	1.15	2
Michael Baker Jr., Inc.	2009	69.8	0
Michael Baker Jr., Inc.	2009	44	5
Michael Baker Jr., Inc.	2009	Not Identified	0
Bear Creek Archeology, Inc.	2010	14.6	3
Michael Baker Jr., Inc.	2010	28	1
Bear Creek Archeology, Inc.	2010	125.4	13
Bear Creek Archeology, Inc.	2011	93.5	5
Bear Creek Archeology, Inc.	2011	Not Identified	0
Bear Creek Archeology, Inc.	2011	Not Identified	0
Bear Creek Archeology, Inc.	2012	Not Identified	0
Total		1,021.14[2]	320

[1] Reconnaissance survey acreage
[2] Total acres surveyed on IAAAP is an estimate.

4.2.3.2 Testing and Excavations

The 1987 survey by USACE, Rock Island District identified a 17-acre prehistoric site (13DM303). A surface collection recovered 172 lithic items from local cherts of the Burlington formation. It was recommended that this site be tested to determine its NRHP eligibility (Peyton 2002).Seven of 14 prehistoric and historic tested sites were recommended potentially eligible for NRHP listing in a 1997 survey completed by Tetra Tech. The potentially eligible sites were 13DM367 (partial site), 13DM439 (historic component only), 13DM441 (undisturbed portions only), 13DM451 (partial site), 13DM468 (partial site), 13DM470, 13DM541 (partial site) (Tetra Tech, Inc. 1987).

Another Tetra Tech Light Phase II survey testing of 27 sites in 2002 yielded an additional three potentially eligible sites (13DM419, 13DM420, 13DM473) and four eligible sites (13DM303, 13DM376, 13DM426, 13DM574). At this time, site 13DM473 was also recommended for further testing (Leininger and Bienenfeld 2002).

In 2005, Tetra Tech tested three additional sites (13DM366, 13DM577, 13DM611) as part of a Light Phase II survey. It was recommended that portions of site 13DM366 be considered potentially eligible for the NRHP, but the remaining two sites were considered ineligible (Tetra Tech EC, Inc. 2005).

Excavations performed by Great Lakes Archeological Research Center in 2005 and again by Michael Baker Jr., Inc. in 2009 led to the determination of eligibility for sites 13DM1052, 13DM1054, 13DM1067, and 13DM1068. Of these, 13DM1054 and 13DM1068 were deemed potentially eligible for NRHP listing (Gregory et al. 2005; Hinks 2009; Cunning et al. 2009; Michael Baker Jr., Inc. 2009; Hinks and Lombardi 2009).

Another 2009 survey by Michael Baker Jr., Inc. for the proposed West Perimeter Fence Alignment recommended further deep testing for the recommended potentially eligible site 13DM1107 and avoidance of an additional site (13DM1109) (Cunning et al. 2009).

Prehistoric sites 13DM1272 and 13DM1277 were recommended for Phase II testing or avoidance as part of a 2010 survey by Bear Creek Archeology (Thompson 2010a). An additional survey by Bear Creek Archeology conducted during the same year also included further investigation of 13DM1272, which was recommended yet again for avoidance or Phase II testing (Thompson 2010b).

For additional information concerning sites identified at IAAAP, see Appendix C.

4.2.4 Architectural Inventories and Assessments

As of 2012, about 1,289 buildings, sites, structures, and engineering works existed at IAAAP. Appendix D provides a complete listing of all of these resources. Although the vast majority of these properties have identifying numbers, some minor engineering works and structures were not assigned numbers.

The types of resources included within this inventory include such diverse properties as ammunition storage facilities, ammunition production plants, operations supply buildings, locker rooms, covered storage buildings, railroad tracks, roads, vehicular and railroad bridges, cemeteries, exterior lighting, fencing and walls, flagpoles, facility signs, sewer and industrial waste lines, hazardous materials storage, administration buildings and structures, open storage units, a fire station, a family housing dwelling, a police station, a small arms range, sidewalks and walkways, an electronic communication and maintenance shop, an ammunition depot and arsenal, vehicle maintenance shops, a non-exchange eating facility, training support structures, utility buildings, security support buildings, overhead power lines, public restrooms, a POL pipeline, bulk liquid fuel storage, pavilions, gas distribution lines, fuel storage facilities, cemeteries, industrial waste treatment facilities, heat distribution lines, earth-covered magazines (ECM), electrical power transformers, gas production plant, levees and dikes, water reservoir, wells, and loading platforms and ramps.

Three separate architectural assessments have been conducted at IAAAP (Table 4.3). Currently, architectural inventories conducted under AR 200-1 classify properties as either eligible or not eligible for the NRHP.

Table 4.3 Summary of Architectural Inventories at the IAAAP

Author	Report Date	Historical Context	Total Buildings/Structures Inventoried
MacDonald and Mack Partnership	1984	World War II, Cold War	29
Mason & Hangar-Silas Mason Co., Inc.	1996	World War II	72*
Waite	1996	World War II, Cold War	1,190**
Griffitts	2005	World War II, Cold War	7

*Buildings no longer located on IAAAP property. **No full evaluations associated with this inventory, which was compiled for the 1996 CRMP.

In 1984, a document by MacDonald and Mack Partnership was prepared as a portion of the Development and Readiness Command (DARCOM) Historical/Archeological Survey (DHAS) (MacDonald and Mack Partnership 1984). The DARCOM study determined significance of properties according to standards provided by AR 420-40 and Technical Manual 5-801-1. These standards classified properties ranging from Category I through Category V in an attempt to define levels of significance for operation and maintenance funding priorities only:

- Category I—properties of major importance;
- Category II—properties of importance;
- Category III—properties of minor importance;
- Category IV—properties of little or no importance; and
- Category V—properties detrimental to the significance of adjacent historic properties.

Due to the review of architectural, historical, and technological resources identified on Army facilities nationwide (73 DARCOM studies at other facilities), four additional criteria were employed to aid in determining appropriate category levels for properties at IAAAP. The criteria were used to assess the importance not only of properties of traditional historical interest, but also of ubiquitous standardized or prototypical buildings, structures, and production facilities that were constructed and put into service during World War II, as well as of properties associated with many post-war technological achievements (regardless of building age). The four criteria were often used in combination and include (MacDonald and Mack Partnership 1984):

- Degree of importance as a work of architectural, engineering, or industrial design (e.g., workmanship, materials, functionality);
- Degree of rarity as a remaining example of a once widely used architectural, engineering, or industrial design or process (utilized with standardized construction and nonmilitary designs);
- Degree of integrity of completeness (intactness); and
- Degree of association with an important person, program, or event (significant associations).

Most DARCOM properties were constructed just prior to World War II, and special consideration was given to the evaluation of such. While those extant properties from this period are not individually significant, they are collectively an important representation of the vast construction undertaking

associated with World War II; Together, the historical, architectural, and technological significance of the properties guided the DARCOM study to focus on military construction between 1940 and 1945, as well as its contribution to the history of World War II and to the post-war Army landscape.

All properties were placed into one of the five categories, with those assigned to Categories I, II, and III assessed under additional criteria: structural condition and state of repair, and potential for adverse effects to occur (e.g. demolition). No Category I properties were found to be present at IAAAP, but one property, Avery Fruit Cellar, was classified as Category II. The report indicated that Avery Fruit Cellar was a "rare architectural artifact of southeastern Iowa's once-flourishing orchard industry." Based on historic property guidance outlined in AR 420-40, which was in force at this time, the cellar was considered of "importance," or Category II. At that time, the property was photographed and a HABS/HAER Level IV Inventory Card completed. A brief description of the resource was also included in the report.

The 1872 Winnebago School was classified as Category III, of "minor importance," as a local historic landmark and a good example of vernacular stone architecture. This resource was documented in the same manner as the Avery Fruit Cellar. All remaining properties were assigned Categories IV or V classification.

As part of the DARCOM study, 29 properties were documented in accordance with Level IV guidance provided by the HABS/HAER division of the NPS. The records are archived at the Library of Congress in the HAER collection, and a copy of each inventory card is on file with the cultural resources staff. These documented buildings include:

- 500-30-7, Hawkeye School;
- 500-36-6, Winnebago School;
- BG-1, Office Building;
- 300-148, Maintenance Shop;
- Avery Fruit Cellar (no number);
- 200-131-2, Garage;
- 500-116, Recreation Hall;
- 3-52, Office;
- 2-04, Painting and Receiving;
- 6-76, Packing and Shipping;
- 500-125, Laundry;
- 8-81-3, Ammonium Nitrate Kettle House;
- 1-63-7, Research and Development;
- 3A-05-2, Melt Building;
- 500-101, Administration Building;
- 2-01, Inert Storage;
- 200-131-3, Fire Station;
- 1-62, Power House;

- 2-05-1, Melt Building;
- 500-129, Maintenance Shop;
- Igloo-style Magazines, Building No. 60-46-5 (representative);
- Warehouse Buildings Nos. 500-143; L-4 (representative); and
- Residence Buildings Nos. 2, 27, 32, 33, 40, and 48.

The records of the IAAAP cultural resource management files (either the Operating Contractor or the Army files) do not indicate that the SHPO was consulted or concurred with the findings and determinations of the DARCOM study.

In 1995, Mason & Hangar-Silas Co., Inc. completed a Section 106 assessment of 121.17 acres of land containing residential resources. The survey included the potential effects of conveying such resources to the City of Middletown. The report found none of the properties individually significant, but as a whole, the resources were determined to be contributing to IAAAP and its potential NRHP eligibility. The conveyance of the properties was thus determined to have an adverse effect on the contributing resources and the report recommended the development of an MOA prior to property conveyance (Mason & Hangar-Silas Mason Co., Inc. 1995).

Although no formal SHPO concurrence of this determination has been found, it is assumed to have transpired according to a February 14, 1995, Memorandum of Record (MOR) prepared by Mary Jane Beck, IAAAP Realty Specialist. The MOR summarizes a conference telephone call among the Iowa SHPO, the Council, and Mr. Bob Hanes (IAAAP). The MOR indicates that all parties "…agree that the housing area is significant only for its creation and use in association with the World War II build-up." The MOR further indicates that mitigations would be undertaken by qualified individuals and would include a brief history of the creation and use of the housing area. Existing plans, elevations, floor plans, and other architectural renderings depicting the original and contemporary conditions of the buildings and their configurations were to be collected and reposited at IAAAP and with the Iowa SHPO (Beck 1995).

An MOA signed by the Iowa SHPO in October 1995 outlines the mitigation measures to be undertaken by IAAAP; however, no evidence of completed mitigation efforts was located. The properties have since been transferred to the City of Middletown, Iowa, and are no longer under the jurisdiction and responsibility of IAAAP (IAAAP 1995).

In 2005, Parsons, Inc. conducted an architectural survey of seven production lines (Lines 5A, 5B, 6, 7, 8, 800, 9) and a National Register evaluation of Line 7 (Griffitts 2005). Lines 5A, 5B, 6, 800, and 9 were described in the reconnaissance survey as either potentially eligible or were recommended for further research. At this survey level, Line 8 appeared to be not eligible for NRHP listing. A full evaluation of Line 7 concluded with the recommendation of not eligible. While SHPO may agree with the eligibility recommendations, no concurrence letters associated with this evaluation were identified at IAAAP.

To date, 957 of the 1,289 existing buildings, sites, structures, and engineering are described as individually eligible for the NRHP for the purposes of two Program Alternatives: World War II and Cold War Era (1939-1974) Ammunition Storage Facilities and World War II and Cold War Era (1939-1974) Army Ammunition Production Facilities and Plants (both documents are located in Appendix G). The remaining 343 properties are not considered eligible because they represent ancillary or infrastructure elements, such as nonhistoric roads, or signs, or are not normally considered as NRHP-eligible properties, or they have not reached 50 years of age.

4.3. RESOURCE INVENTORY

This section summarizes Iowa Army Ammunition Plant's known cultural resources, including buildings, structures, archeological sites, cemeteries, and other types of properties.

4.3.1 Architectural and Historical Resources

This section lists any architectural properties present at IAAAP that are listed on the NRHP. It also summarizes any studies concerning architectural properties that were assessed as NRHP eligible, ineligible, or not yet assessed.

4.3.1.1 Architectural Properties Listed in the NRHP

Currently, no architectural properties at IAAAP are listed on the NRHP.

4.3.1.2 Architectural Properties Assessed as NRHP Eligible

No site-wide cultural resources surveys of resources 50 years old or older have been completed at IAAAP.

The 1995 Mason & Hangar-Silas Mason Co., Inc. assessment of 72 residential resources regarded all as contributing to IAAAP as a potentially eligible historic district. These buildings have since been transferred to the City of Middletown and are no longer under the jurisdiction of IAAAP (Mason & Hangar-Silas Mason Co., Inc. 1995).

As part of the 1996 CRMP, a preliminary reconnaissance survey was conducted for 1,190 World War II and Cold War buildings and structures at IAAAP. Of these, 382 World War II- and 20 Cold War-era resources were noted as potentially eligible. The eligibility of the remaining 788 resources was defined as "unknown" at that time (Waite 1996).

Through the ACHP's Program Comment for World War II and Cold War Era (1939-1974) Ammunition Storage Facilities and Program Comment for World War II and Cold War Era (1939-1974) Army Ammunition Production Facilities and Plants, both signed in 2006, 957 resources at IAAAP are currently assigned the code ELPA (eligible for the purposes of a program alternative). Under these Program Comments, the DOD, in coordination with the ACHP, has mitigated the eligible facilities as part of a nationwide mitigation for eligible ammunition storage and production facilities and plants.

4.3.1.3 Architectural Properties Assessed as NRHP Ineligible

An NRHP evaluation of Line 7 conducted in March 2005 recommended the facility and its associated ancillary features (26 buildings in all) not eligible for NRHP listing (see Appendix D). As part of this study, Line 8 (three buildings) was also surveyed, but did not receive a full NRHP evaluation. It was noted that this line no longer retains sufficient integrity to meet NRHP criteria (Griffitts 2005). The Iowa SHPO reviewed the evaluation and concurred with the determination (see Appendix F).

4.3.1.4 Architectural Properties Not Yet Assessed

While the 1984 DARCOM project studied 29 resources at IAAAP, no discussion of NRHP eligibility took place in this report (MacDonald and Mack Partnership 1984).

The reconnaissance survey completed as part of the 1996 CRMP, defined the eligibility of 788 of 1,190 inventoried resources as "unknown" at that time (Waite 1996).

In a 2005, survey of seven production lines at IAAAP, it was recommended that five (5A, 5B, 6, 800, and 9) of the seven lines receive full NRHP assessments. Line 5A consists of 29 buildings and structures in all, 28 buildings and structures make up 5B, 74 buildings and structures comprise Line 6, 800 has a total of 22 buildings and structures, and Line 9 is made up of 28 buildings and structures (Griffitts 2005). These lines were not fully studied for eligibility at that time, but most facilities addressed in the 2005 report were assigned the code ELPA as part of the 2006 Program Comments.

During the site visit for the creation of the current ICRMP, architectural resources assigned the code NEV (not yet evaluated) as part of the 2006 Progam Comments, including five cemeteries, several fences and gates, a vehicular bridge, and a reservoir that were constructed before 1968 were noted, visited, and photographed. These resources were not fully evaluated for National Register eligibility but were surveyed for planning purposes for this ICRMP update.

4.3.1.5 Architectural Properties No Longer Extant

Since 2002, 154 IAAAP facilities have been demolished. Included in this total are not only buildings and structures such as gatehouses, administrative offices, ready magazines, and holding tanks, but also secondary features such as traffic control lights and signs.

4.3.2 Archeological Resources

Archeological sites recorded at IAAAP were given a trinomial designation in the form: 13DM175. The first number is the state number for Iowa, the letters stand for Des Moines County, and the last digits refer to the sequential order in which the site was recorded.

A total of 320 archeological sites have been recorded at IAAAP (see Appendix C). The first site on record is 13DM19 and the last is 13DM1323 (other sites in this range are located elsewhere in Des Moines County). The sources used to identify previously recorded sites at IAAAP were (1) previous survey reports, (2) the 1996 CRMP (Waite 1996), (3) and the 2002 ICRMP (Peyton 2002).

SHPO concurrence has not been identified for most of the 320 archeological sites at IAAAP (see Table 4.4). IAAAP and the Iowa SHPO have concurred that (1) 68 of the archeological sites are not eligible for the NRHP, (2) four are eligible for the NRHP, (3) 20 are potentially eligible for the NRHP, and (4) the remaining 228 sites should be protected from further disturbance until further testing to determine NRHP eligibility can be planned or completed.

Table 4.4 Archeological Sites by NRHP Eligibility

Eligible (portions of sites or in full)	Potentially Eligible (portions of sites or in full)	Not Eligible		Unknown Eligibility				
13DM303	13DM366	13DM227	13DM603	13DM19	13DM412	13DM478	13DM529	13DM576
13DM376	13DM361	13DM355	13DM611	13DM228	13DM413	13DM480	13DM530	13DM578
13DM426	13DM367	13DM356	13DM1052	13DM354	13DM414	13DM482	13DM531	13DM579
13DM574	13DM385	13DM370	13DM1053	13DM357	13DM416	13DM483	13DM532	13DM580
	13DM419	13DM377	13DM1055	13DM358	13DM418	13DM484	13DM533	13DM581
	13DM420	13DM380	13DM1056	13DM359	13DM421	13DM485	13DM534	13DM582
	13DM439	13DM391	13DM1059	13DM360	13DM422	13DM486	13DM535	13DM583
	13DM441	13DM396	13DM1060	13DM362	13DM423	13DM487	13DM536	13DM585
	13DM451	13DM397	13DM1061	13DM363	13DM425	13DM488	13DM537	13DM586
	13DM468	13DM411	13DM1062	13DM364	13DM427	13DM489	13DM539	13DM587
	13DM470	13DM415	13DM1063	13DM365	13DM428	13DM490	13DM540	13DM590
	13DM473	13DM417	13DM1064	13DM368	13DM429	13DM491	13DM542	13DM592
	13DM541	13DM424	13DM1067	13DM369	13DM431	13DM492	13DM543	13DM593
	13DM1054	13DM430	13DM1105	13DM371	13DM432	13DM493	13DM544	13DM594
	13DM1057	13DM434	13DM1106	13DM372	13DM433	13DM494	13DM545	13DM595
	13DM1058	13DM443	13DM1108	13DM373	13DM435	13DM495	13DM546	13DM596

Table 4.4 Archeological Sites by NRHP Eligibility

Eligible (portions of sites or in full)	Potentially Eligible (portions of sites or in full)	Not Eligible		Unknown Eligibility				
	13DM1068	13DM445	13DM1109	13DM374	13DM436	13DM496	13DM547	13DM597
	13DM1107	13DM449	13DM1110	13DM375	13DM437	13DM497	13DM548	13DM598
	13DM1272	13DM472	13DM1273	13DM378	13DM438	13DM498	13DM549	13DM600
	13DM1277	13DM474	13DM1274	13DM379	13DM440	13DM499	13DM550	13DM601
		13DM477	13DM1276	13DM381	13DM442	13DM500	13DM551	13DM604
		13DM479	13DM1278	13DM382	13DM444	13DM501	13DM552	13DM605
		13DM481	13DM1279	13DM383	13DM446	13DM502	13DM553	13DM606
		13DM517	13DM1280	13DM384	13DM447	13DM503	13DM554	13DM607
		13DM519	13DM1281	13DM386	13DM448	13DM504	13DM555	13DM608
		13DM523	13DM1293	13DM387	13DM450	13DM505	13DM556	13DM609
		13DM538	13DM1294	13DM388	13DM452	13DM506	13DM557	13DM610
		13DM577	13DM1295	13DM389	13DM453	13DM507	13DM558	13DM612
		13DM584	13DM1296	13DM390	13DM454	13DM508	13DM559	13DM613
		13DM588	13DM1319	13DM392	13DM455	13DM509	13DM560	13DM614
		13DM589	13DM1320	13DM393	13DM456	13DM510	13DM561	13DM615
		13DM591	13DM1321	13DM394	13DM457	13DM511	13DM562	13DM616
		13DM599	13DM1322	13DM395	13DM458	13DM512	13DM563	13DM617
		13DM602	13DM1323	13DM398	13DM459	13DM513	13DM564	13DM618
				13DM399	13DM460	13DM514	13DM565	13DM619
				13DM400	13DM461	13DM515	13DM566	13DM620
				13DM401	13DM462	13DM516	13DM567	13DM621
				13DM402	13DM463	13DM518	13DM568	13DM622
				13DM403	13DM464	13DM520	13DM569	13DM625
				13DM404	13DM465	13DM521	13DM570	13DM630
				13DM405	13DM466	13DM522	13DM571	13DM631
				13DM406	13DM467	13DM524	13DM572	13DM1275
				13DM407	13DM469	13DM525	13DM573	13DM1297
				13DM408	13DM471	13DM526	13DM575	13DM1298
				13DM409	13DM475	13DM527		
				13DM410	13DM476	13DM528		

Note: The first number in the sequence (13) is the state number for Iowa, the letters (DM) stand for Des Moines County, and the last digits refer to the sequential order in which the site was recorded.

Artifacts discovered at some of the archeological sites are in curation at Tetra Tech, Inc. in Fairfax, Virginia. IAAAP plans to have those artifacts curated at UI-OSA with IAAAP's other collections in the future.

4.3.2.1 Archeological Sites Listed in the NRHP

No archeological sites at IAAAP have been formally nominated to or included in the NRHP.

4.3.2.2 Archeological Sites Assessed as NRHP Eligible

Four archeological sites at IAAAP have been assessed as NRHP eligible and another 20 are potentially eligible for listing (Table 4.5). A total of 228 additional sites are currently described as having unknown eligibility. Most of the sites were initially recorded in a 1991 reconnaissance survey of 274 new archeological sites (Winham et al. 1991). SHPO concurrence for this report was not identified, but additional studies on some of the sites initially identified as part of the reconnaissance study have been reevaluated and in all but draft evaluations, such reevaluations have received SHPO concurrence (see Appendix F).

4.3.2.3 Archeological Sites Assessed as NRHP Ineligible

Based on the site listing presented in Appendix C, 60 archeological sites were assessed as not eligible for inclusion on the NRHP, and the SHPO has concurred with these recommendations in all studies besides those still in draft form (Table 4.5).

Table 4.5 NRHP Eligibility of Archeological Sites and Management Actions Needed

	Management Action Needed			
NRHP Status	Preserve and Protect	Avoid	No Action	No. of Sites
Listed	✓	✓		0
Eligible for listing	✓	✓		4
Potentially eligible		✓		20
Unknown eligibility		✓		228
Possibly not eligible			✓	0
Not eligible			✓	68
Total recorded sites				320

4.3.2.4 Uninvestigated Localities of Possible Historic Sites

A total of 14,708 acres have been surveyed on IAAAP. Remaining acreage at IAAAP has been disturbed or contains UXO. There is some potential for historic sites to be identified at IAAAP, and additional survey for such sites will take place as projects arise.

4.3.4 Traditional Cultural Properties

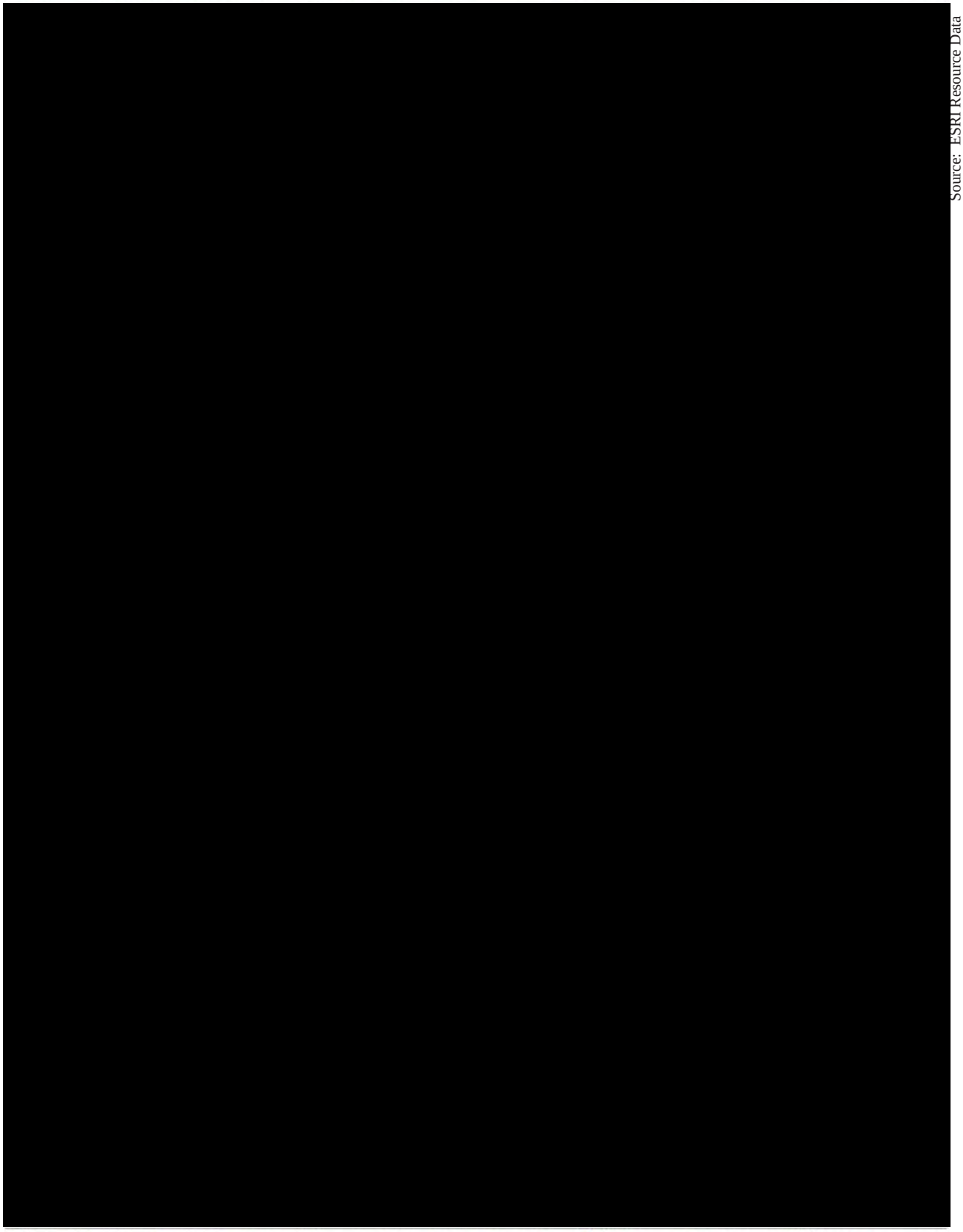
No focused studies have taken place at IAAAP for the identification of TCPs or Native American sacred places, nor have any such sites been identified.

4.3.5 Cemeteries and AR 210-190

Six known cemeteries are present at IAAAP: Elliott, Mormon, Lee, Shiloh (Avery), Swedestown, and Spring Creek (see Figure 4.2). A seventh, Johnson-Walker Cemetery is located immediately outside of the IAAAP bounds, but has its own IAAAP facility number and is on IAAAP property. According to the 2002 ICRMP, Lee, Elliot, and Swedestown cemeteries were relocated to Shiloh. During the site visit for the current ICRMP; however, it was determined that Elliot Cemetery remains intact despite overall lack of maintenance. Swedestown is in an area that contains UXO. Archeological site numbers have been assigned to four of the cemeteries: 13DM388 (Elliot), 13DM480 (Shiloh), 13DM533 (Swedestown), and 13DM546 (Mormon) and to a greater site, 13DM367, in which a fifth cemetery (Lee) is located. The

NRHP eligibility of these four cemeteries is described as “unknown” at the current time (Table 4.5). Architectural historians have not evaluated any of the cemeteries for potential NRHP eligibility. It is likely that there are other farmstead cemeteries located on the IAAAP grounds.

The Iowa SHPO has requested that IAAAP record all of the extant historic-era cemeteries on Iowa Site Inventory Forms and file them with the SHPO. Consideration should also be given to also recording the cemeteries as archeological sites with the Office of the State Archeologist.



Source: ESRI Resource Data

Figure 4.2 Locations of Known Cemeteries

Information regarding the location, character, or ownership of historic resources withheld pursuant to National Historic Preservation Act, Section 304, and Advisory Council on Historic Preservation regulations at 10 CFR 800.11(c).

Army Regulation 210-190, entitled Post Cemeteries, sets policies, procedures, and responsibilities for the operation, maintenance, and inspection of Army post cemeteries, whether they are open or closed. Part of the policy states that for private cemeteries located on Government-owned land, access and visitation rights continue and the Army "owes certain duties to the family, church, or private cemetery association that has an interest in the burial sites and to the next of kin of the individuals buried there." While Spring Creek and Shiloh are not owned by IAAAP, both are maintained by the facility due to their locations within the IAAAP bounds. Mormon Cemetery is also maintained by IAAAP, and plans for maintenance at Elliot Cemetery are underway.

4.3.6 Other Resource Types: Objects, Structures, and Landscapes

Military installations tend to have a wide variety of cultural resource types that cannot be classified as a building or an archeological site. Under 36 CFR Part 800, the Section 106 regulations include as historic properties artifacts, records, and remains that are related to and located within a NRHP-eligible historic district, site, building, structure, or object. Objects and structures such as statuary, guns, tanks, or other vehicles are not typically individually eligible for the NRHP, but more often can be considered contributing resources in a larger historic district. In order for one of these other resource types to be considered eligible on an individual basis, it would have to have historic significance and retain integrity, just as a house or archeological site would. As of December 2012, a search of the NRHP database indicates that only one military tank is currently listed in the NRHP. It is the Windward Hills Japanese Light Model Tank No. 95 located in Guam, which was determined significant for its association with the Japanese military presence on the island of Guam during World War II. This tank was listed in 1979, and the nomination does not specify its significance in the area of engineering, but this would be an important area for consideration of a military tank today. A military tank would be categorized as a structure as they are "functional constructions," much like a trolley car or a boat.

Additionally, three guns are currently listed in the NRHP: the Blunts Point Naval Gun in American Samoa, the Japanese Coastal Defense Gun in the North Mariana Islands, and the Six-inch Rifled Gun No. 9 in California. The Gonga Beach Gun Emplacement and Gun Mount in Guam are also listed in the NRHP. These guns were found significant in the areas of engineering and/or the military and are considered objects. These guns also had an association with a specific event in military history and are located in their original positions along coastal areas. No historic tanks or guns are included in the current cultural resources inventory at IAAAP.

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APPENDIX A: GLOSSARY

GLOSSARY

This appendix gives brief explanations of several key terms and concepts common to cultural resource laws and regulations that are referenced in this ICRMP. Other terms and concepts are also applicable and are defined in the relevant laws and regulations. The definitions are sourced directly from 36 CFR Part 800 of the NHPA, the National Register bulletins, AR-200-1, other official documents, or from the previous ICRMP glossary from 2005-2009. Some practical aspects of certain definitions are also noted.

Adverse Effect: An undertaking has an adverse effect on a historic property when it diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, and/or association. Adverse effects, as defined in 36 CFR Part 800.5, include:

- Physical destruction, damage, or alteration to all or part of the property;
- Alteration of a property that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68). Such alterations can include restoration, rehabilitation, repair, maintenance, stabilization, and hazardous material remediation;
- Removal of a property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Neglect of a property which causes deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe; and
- 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.

Advisory Council on Historic Preservation (ACHP): An independent federal agency that promotes the preservation, enhancement, and productive use of our nation's historic resources, and advises the President and Congress on national historic preservation policy. The ACHP administers the Section 106 review process by issuing regulations that provide guidance and advice on the applications of Section 106. The ACHP comments on Section 106 undertakings and is a signatory for Section 106 agreement documents.

Area of Potential Effects (APE): The Geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. This area always includes the actual site of the undertaking, but may also include other areas where the undertaking will cause changes in land use, traffic patterns, setting, or other aspects that could affect historic properties.

Artifacts: Discrete and generally portable, artifacts are any objects used or manufactured by humans. Individual isolated artifacts are a class of cultural resource generally not eligible for inclusion in the NRHP, with the exception of specific objects of great historical importance.

Army Alternate Procedures (AAP): Approved by the ACHP in 2001, the AAP is a streamlined process that Army installations may use to comply with Section 106. The AAP enables installations to comply with Section 106 programmatically and internally.

Consulting Parties: Parties defined by Section 106 of the NHPA that have consultative roles in the Section 106 process. These include the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO) if applicable, local governments, certain individuals and organizations with a demonstrated interest in the undertaking, and the public. Consulting parties provide the federal agency with their comments concerning the undertaking.

Council Comment: The ACHP (Council) may provide the agency official its advisory opinion regarding the substance of any finding, determination or decision regarding the agency's adequacy in complying with Section 106. The Council has the ability to determine whether an agency has failed to complete the requirements of Section 106, thereby foreclosing the Council's opportunity to comment on the project. A foreclosure determination is transmitted to the agency official and the head of the agency, and made available to the public and consulting parties.

Cultural Resource: The term cultural resource is often used in reference to any place, site, building, object, or collection of these, that was built or fashioned by people. Fossils and naturally occurring geological specimens are not cultural resources (unless found within an archaeological context). The AR 200-1 specifically defines and uses "cultural resources" as a blanket term in reference to the historic properties defined by the NHPA, the cultural items defined by NAGPRA, the archaeological resource defined by ARPA, and other applicable laws with similar terms. The term is not to be confused with the term "historic properties," which is defined in CFR Part 800.16 (Section 106 regulations) and in this glossary.

Cultural Resource Manager (CRM): As defined by AR 200-1, each installation Commander is to designate a CRM to coordinate the installation's cultural resource management program. The installation commander will ensure the CRM has appropriate knowledge, skills, and professional training and education to carry out installation cultural resource management responsibilities.

Determination of Eligibility: In order to identify historic properties for Section 106 compliance, National Register criteria are applied and a National Register evaluation is made by the federal agency. The SHPO is consulted with the resource's eligibility recommendation and the SHPO provides comments on this recommendation by either agreeing or disagreeing with the finding, or requesting additional information.

Once a property is determined eligible for the National Register under Section 106, it is treated the same as a property that is already listed in the National Register. Eligibility must be determined solely on the historical, architectural, cultural, or scientific importance of a property. Management issues and mission requirements may not be considered.

District: A district, also referred to as a historic district, is a type of historic property that includes a significant concentration, linkage, or continuity of sites, buildings, structures, or objects that are united historically or aesthetically by plan or physical development. Districts can contain both contributing and non-contributing elements. Non-contributing elements are buildings, structures, sites, objects, or open spaces that do not contribute to the significance of the district.

Historic Context: Those patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within history or prehistory is made clear. Historians, architectural historians, folklorists, archaeologists, and anthropologists use different words to describe this phenomenon such as trend, pattern, theme, or cultural affiliation, but ultimately the concept is the same. The premise of a historic context is that resources, properties, or happenings in history do not occur in a vacuum but rather are part of larger trends or patterns. Evaluating a resource within its historic context is part of determining a resource's significance and eligibility for the National Register.

Historic Property: As defined in 36 CFR Part 800.16 of the NHPA, a historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. Types of historic properties include:

- *Building*- A building, such as a house, barn, church, hotel, or similar construction, is created principally to shelter any form of human activity.
- *Structure*- A functional construction made usually for purposes other than creating human shelter. Examples include: bridge, boat, highway, silo, trolley car, tunnel, earthwork, or dam.
- *Object*- A construction that is primarily artistic in nature or is relatively small in scale and simply constructed. Examples include: boundary marker, fountain, milepost, monument, sculpture, statuary.
- S*ite*- The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure. Examples include: battlefield, campsite, cemeteries, ceremonial site, habitation site, shipwreck, trail.
- *District*- A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

Integrated Cultural Resources Management Plan (ICRMP): A five-year plan for compliance with the NHPA and NAGPRA and the installation commander's decision document for cultural resources management actions and specific compliance procedures. The ICRMP is designed to integrate the installation's cultural resources management program with ongoing mission activities.

Isolated Occurrences: Places where one or only a few artifacts of a single artifact class (e.g., stone tool, faunal remains, pottery) are present are termed isolates or isolated occurrences (IO). These may represent either redeposited archaeological material, the remains of which was once a site which has been disturbed, or the location of some past activity which has left sparse material remains. Examples of the latter include a single arrow point which missed its target, a camp occupied for a very short time, or an object that was lost. Because of their minimal information content, isolated occurrences are rarely eligible for inclusion in the National Register.

Keeper of the Register: The Keeper of the National Register of Historic Places is the individual who has been delegated the authority by the National Park Service (NPS) to list properties and determine their eligibility for the National Register. If a resource's eligibility is in dispute by the consulting parties, the Keeper can provide the final determination of eligibility.

Localities: Archaeological places that have been identified on the basis of collections or documentary research but have not been checked in the field by professionals are referred to as localities. Examples are places where artifact collectors have found archaeological specimens or the sites of past structures as indicated on historic maps. Because professionals have not inspected localities, they have not been evaluated for their eligibility for inclusion in the NRHP.

Memorandum of Agreement (MOA): An MOA is a formal agreement between the agency, the SHPO or THPO, the ACHP, and other pertinent consulting parties that documents the resolution of the adverse effects of an undertaking upon historic properties.

Mitigation: Efforts to lessen the adverse effects caused to historic properties by an undertaking. Mitigation measures are stipulated in an MOA and can include:

- avoiding the effect altogether by not taking an action or by relocating the action;
- reducing or eliminating the effect over time by preservation and maintenance;
- limiting the magnitude of the undertaking;
- repairing, rehabilitating, or restoring the property; and
- recovering and recording information from properties that may be destroyed or damaged.

National Register Nomination Form: An official form submitted to the Keeper of the Register and prepared following the requirements of the NPS. The form includes data, text maps, and photographs and must be prepared according to standards generally accepted by academic historians, architectural historians, and archaeologists.

National Historic Preservation Act (NHPA): Passed into legislation in 1966 and last amended in 2006, the NHPA is the primary federal law governing the preservation of cultural and historic resources in the United States. Two important sections of the NHPA include:

- *Section 106*- Requires federal agencies to take into consideration the effects of their undertakings on properties listed or eligible for listing in the NRHP.
- *Section 110*- Requires federal agencies to integrate historic preservation into their ongoing programs by establishing a preservation program for the identification, evaluation, and nomination of historic properties to the National Register and protection of historic properties.

National Register of Historic Places (NRHP): Maintained by the NPS on behalf of the Secretary of the Interior, an official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering and culture.

Programmatic Agreement (PA): A formal agreement between a federal agency, the SHPO or THPO, and sometimes the ACHP to modify or replace the Section 106 consultation process with an alternative process. A PA is appropriate:

- When effects on historic properties are similar and repetitive or are multi-State or regional in scope;
- When effects on historic properties cannot be fully determined prior to approval of an undertaking;
- When non-federal parties are delegated decision-making responsibilities;
- Where routine management activities are undertaken at Federal installations, facilities, or other land management units; or
- Where other circumstances warrant a departure from the normal Section 106 process.

Section 106 Consultation: The procedure for compliance with Section 106 in which the federal agency requests the comments of the SHPO/THPO and/or the ACHP when an undertaking may affect a historic property.

State Historic Preservation Officer (SHPO): The official designated by the Governor to administer the State's historic preservation program and the duties described in the NHPA, including nominating properties to the National Register and maintaining an inventory of the state's historic resources.

Site (Archaeological): The locations of past human activity, defined according to local standards by state or federal agency archaeologists. Sites may contain artifacts (i.e., things made, modified, ot used by humans), features (i.e., relatively immovable remains of human activity, such as a fire hearth), and other evidence of occupation (e.g., chemical alteration of the soil). If these archaeological materials are found in the place where their original users left them, they are said to be in situ and the site has not been disturbed. If they have been disturbed by natural processes (e.g., erosion) or human activity (e.g., construction, deliberate vandalism), they are said to have been redeposited. Sites which have not been disturbed have the greatest scientific value because the relationship between associated archaeological materials and their vertical and horizontal position can yield important information about the past.

Traditional Cultural Property (TCP): In general, a property that is eligible for the National Register because of its association with cultural practices or beliefs of a living community that are (a) rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.

Undertaking: A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.

APPENDIX B: NATIVE AMERICAN POINT OF CONTACT FOR FEDERALLY RECOGNIZED TRIBES

Iowa Tribe of Kansas and Nebraska, Contacts as of January 2013

Iowa Tribe of Kansas and Nebraska Tribal Council Chairperson:

Timothy Rhodd, Chairperson
Iowa Tribe of Kansas and Nebraska Tribal Council
3345 Thrasher Road
White Cloud, KS 66094
785-595-3258
785-595-6610 FAX
trhodd@iowas.org

Term of Office—Expiration 10/19/2013

Iowa Tribe of Kansas and Nebraska Tribal Historic Preservation Officer (THPO):

F. Martin Fee, THPO
Iowa Tribe of Kansas and Nebraska Tribal Council
3345 Thrasher Road
White Cloud, KS 66094
785-595-3258
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mfee@iowas.org

NAGPRA Contact:

Patt Murphy, NAGPRA Representative
Iowa Tribe of Kansas and Nebraska
206 South Buckeye Avenue
Abilene, KS 67410
785-263-0090
785-263-7453 FAX
indart@access-one.com

Iowa Tribe of Oklahoma, Contacts as of January 2013

Iowa Tribe of Oklahoma Tribal Council Chairperson:

Janice Rowe-Kurak, Chairperson
Iowa Tribe of Oklahoma Business Committee
Route 1, Box 721
Perkins, OK 74059
405-547-2402
405-547-5294 FAX
rowe-kurak@iowanation.org

Term of Office two years—Expiration 2013

Sac and Fox Tribe of the Mississippi in Iowa, Contacts as of January 2013

Sac and Fox Tribe of the Mississippi in Iowa Tribal Council Chairperson:

Frank Blackcloud, Chairperson
Sac and Fox Tribe of the Mississippi in Iowa Tribal Council
349 Meskwaki Road
Tama, IA 52339-9629
641-484-4678
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chair.council@meskwaki-nsn.gov

Term of Office—Two Years, Expiration 2013

NAGPRA Contact:

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Sac and Fox Nation of Missouri, Contacts as of January 2013

Sac and Fox Nation of Missouri Tribal Council Chairperson:

Michael Dougherty, Chairperson
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Term of Office—Four Years, Expiration 8/2015

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Sac and Fox Nation of Oklahoma, Contacts as of January 2013

Sac and Fox Nation of Oklahoma Principal Chief:

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APPENDIX C: IAAAP RECORDED ARCHEOLOGICAL SITES

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM19	Unknown	Unknown	None	•		Unknown
13DM227	No	No	None		•	3-4-1987
13DM228	Unknown	Unknown	Avoid and test	•	•	3-4-1987
13DM303	Yes	Yes	None	•	•	4-1987
13DM354	Unknown	*	None unless impacted by government	•	•	6-30-1989
13DM355	No	No	None unless impacted by government		•	11-8-1989
13DM356	No	No	None unless impacted by government		•	11-8-1989
13DM357	Unknown	*	None		•	11-8-1989
13DM358	Unknown	*	None unless impacted by government		•	7-6-1989
13DM359	Unknown	Unknown	None unless impacted by government		•	7-9-1990
13DM360	Unknown	*	None unless impacted by government		•	7-8-1989
13DM361	Potentially	*	None		•	7-6-1989
13DM362	Unknown	*	Protect from further impact	•		7-7-1990
13DM363	Unknown	*	None unless impacted by government		•	7-8-1989
13DM364	Unknown	*	None		•	11-14-1989
13DM365	Unknown	*	Avoid and test	•		11-9-1989
13DM366	Potentially	Potentially	None unless impacted by government	•	•	6-21-1989
13DM367	Potentially	Potentially	Avoid and test	•	•	6-26-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM368	Unknown	*	None		•	7-18-1989
13DM369	Unknown	*	None		•	3-30-1990
13DM370	No	No	None	•		3-30-1990
13DM371	Unknown	*	None unless impacted by government		•	4-6-1990
13DM372	Unknown	*	Avoid and test	•		4-6-1990
13DM373	Unknown	*	Avoid and test	•		4-6-1990
13DM374	Unknown	*	None unless impacted by government		•	4-20-1990
13DM375	Unknown	*	None unless impacted by government		•	4-7-1990
13DM376	Yes (historic component)	Yes (historic component)	None unless impacted by government	•	•	4-7-1990
13DM377	No	No	None	•		4-7-1990
13DM378	Unknown	*	None		•	4-20-1990
13DM379	Unknown	*	Avoid and test	•		4-17-1990
13DM380	No	No	None	•		4-1-1990
13DM381	Unknown	*	None unless impacted by government		•	4-5-1990
13DM382	Unknown	*	None unless impacted by government		•	4-6-1990
13DM383	Unknown	*	None unless impacted by government		•	4-19-1990
13DM384	Unknown	*	None unless impacted by government		•	4-17-1990
13DM385	Potentially	Potentially	None unless impacted by government	•	•	11-14-1989
13DM386	Unknown	*	None		•	11-14-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM387	Unknown	Unknown	Avoid and test	•	•	11-9-1989
13DM388	Unknown	*	Protect		•	7-23-1990
13DM389	Unknown	*	None		•	7-23-1989
13DM390	Unknown	*	None		•	7-25-1989
13DM391	No	No	None		•	11-9-1989
13DM392	Unknown	*	Avoid and test	•	•	11-14-1989
13DM393	Unknown	*	Avoid and test	•		11-11-1989
13DM394	Unknown	*	None unless impacted by government		•	11-12-1989
13DM395	Unknown	*	None unless impacted by government		•	11-13-1989
13DM396	No	No	None	•	•	11-14-1990
13DM397	No	No	None unless impacted by government		•	11-11-1989
13DM398	Unknown	*	None unless impacted by government		•	11-11-1989
13DM399	Unknown	*	Avoid and test	•		3-30-1990
13DM400	Unknown	*	None unless impacted by government		•	4-31-1990
13DM401	Unknown	*	None		•	3-31-1990
13DM402	Unknown	*	Avoid and test	•		3-31-1990
13DM403	Unknown	*	Avoid and test	•		3-30-1990
13DM404	Unknown	*	Avoid and test	•		3-30-1990
13DM405	Unknown	*	Avoid and test	•		3-30-1990
13DM406	Unknown	*	None unless impacted by government		•	3-30-1990
13DM407	Unknown	*	None unless impacted by government		•	3-31-1990

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM408	Unknown	*	None unless impacted by government		•	4-1-1990
13DM409	Unknown	*	None unless impacted by government		•	4-1-1990
13DM410	Unknown	*	None unless impacted by government		•	4-2-1990
13DM411	No	No	None	•		3-28-1990
13DM412	Unknown	*	None unless impacted by government		•	3-29-1990
13DM413	Unknown	*	None unless impacted by government		•	3-29-1990
13DM414	Unknown	*	Avoid and test		•	3-28-1990
13DM415	No	No	None	•	•	3-28-1990
13DM416	Unknown	*	None unless impacted by government		•	3-28-1990
13DM417	No	No	None	•		3-28-1990
13DM418	Unknown	*	Avoid and test	•	•	11-15-1989
13DM419	Potentially (historic component)	Potentially (historic component	Avoid and test	•		7-26-1989
13DM420	Potentially	Potentially	Avoid and test	•		7-26-1989
13DM421	Unknown	*	None unless impacted by government		•	11-11-1989
13DM422	Unknown	*	None unless impacted by government		•	11-14-1989
13DM423	Unknown	*	Avoid and test	•	•	3-29-1990
13DM424	No	No	None	•		6-30-1989
13DM425	Unknown	*	None unless impacted by government		•	11-14-1989
13DM426	Yes (historic component)	Yes (historic component)	None	•	•	3-28-1990

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM427	Unknown	*	None unless impacted by government		•	11-14-1989
13DM428	Unknown	*	None unless impacted by government		•	3-29-1990
13DM429	Unknown	*	Avoid and test	•		4-2-1990
13DM430	No	No	None	•		4-2-1990
13DM431	Unknown	*	None unless impacted by government		•	4-2-1990
13DM432	Unknown	*	None unless impacted by government		•	4-3-1990
13DM433	Unknown	*	None unless impacted by government	•	•	4-3-1990
13DM434	No	No	None	•		4-4-1990
13DM435	Unknown	*	Avoid and test	•		4-4-1990
13DM436	Unknown	*	None unless impacted by government	•		4-4-1990
13DM437	Unknown	*	Avoid and test	•		4-4-1990
13DM438	Unknown	*	Avoid and test	•		4-4-1990
13DM439	Potentially (historic component)	Potentially (historic component)	Avoid and test	•	•	4-4-1990
13DM440	Unknown	*	None		•	4-4-1990
13DM441	Potentially (undisturbed portions only)	Potentially (undisturbed portions only)	Avoid and test	•		4-4-1990
13DM442	Unknown	*	Avoid and test	•		4-4-1990
13DM443	No	No	None		•	4-4-1990
13DM444	Unknown	*	Avoid and test	•		4-3-1990
13DM445	No	No	None unless impacted by government		•	4-1-1990

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM446	Unknown	*	Avoid and test	•		4-1-1990
13DM447	Unknown	*	None unless impacted by government		•	4-2-1990
13DM448	Unknown	*	None unless impacted by government		•	4-2-1990
13DM449	No	No	None	•		4-3-1990
13DM450	Unknown	*	Avoid and test	•		4-3-1990
13DM451	Potentially (partial site)	Potentially (partial site)	Avoid and test	•	•	4-4-1990
13DM452	Unknown	*	None unless impacted by government		•	4-20-1990
13DM453	Unknown	*	Avoid and test	•	•	4-18-1990
13DM454	Unknown	*	Avoid and test	•	•	4-18-1990
13DM455	Unknown	*	Avoid and test		•	4-19-1990
13DM456	Unknown	*	None unless impacted by government		•	4-18-1990
13DM457	Unknown	*	None		•	4-19-1990
13DM458	Unknown	*	None unless impacted by government	•	•	4-19-1990
13DM459	Unknown	*	None unless impacted by government		•	4-19-1990
13DM460	Unknown	*	Avoid and test	•		4-18-1990
13DM461	Unknown	*	Avoid and test	•	•	4-18-1990
13DM462	Unknown	*	Avoid and test	•	•	4-18-1990
13DM463	Unknown	*	Avoid and test	•	•	4-18-1990
13DM464	Unknown	*	Avoid and test	•		4-18-1990
13DM465	Unknown	*	None unless impacted by government		•	11-13-1989
13DM466	Unknown	*	None unless impacted		•	7-6-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
			by government			
13DM467	Unknown	*	None unless impacted by government		•	7-8-1989
13DM468	Potentially (partial site)	Potentially (partial site)	Avoid and test		•	7-18-1989
13DM469	Unknown	*	None unless impacted by government		•	7-22-1989
13DM470	Potentially	Potentially	Avoid and test		•	11-8-1989
13DM471	Unknown	*	Avoid and test	•		6-16-1989
13DM472	No	No	None	•		6-16-1989
13DM473	Potentially	Potentially	None unless impacted by government		•	6-16-1989
13DM474	No	No	None	•		6-17-1989
13DM475	Unknown	*	Avoid and test Needed	•		6-18-1989
13DM476	Unknown	*	Avoid and test	•		6-19-1989
13DM477	No	No	None		•	6-18-1989
13DM478	Unknown	*	None		•	11-10-1989
13DM479	No	No	None		•	11-9-1989
13DM480	Unknown	*	None unless threatened		•	11-14-1989
13DM481	No	No	None		•	11-10-1989
13DM482	Unknown	*	None		•	11-9-1989
13DM483	Unknown	*	None		•	6-13-1989
13DM484	Unknown	*	None unless impacted by government		•	6-13-1989
13DM485	Unknown	*	Avoid and test	•	•	6-14-1989
13DM486	Unknown	*	Avoid and test	•		6-14-1989
13DM487	Unknown	*	Avoid and test,	•		7-9-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
			stabilize and protect			
13DM488	Unknown	*	Avoid and test	•		3-30-1990
13DM489	Unknown	*	Avoid and test	•	•	3-30-1990
13DM490	Unknown	*	None unless impacted by government		•	3-30-1990
13DM491	Unknown	*	None unless impacted by government		•	3-30-1990
13DM492	Unknown	*	None unless impacted by government		•	3-31-1990
13DM493	Unknown	*	None unless impacted by government		•	4-1-1990
13DM494	Unknown	*	Cease cultivation until tested	•	•	6-15-1989
13DM495	Unknown	*	Avoid and test	•		6-15-1989
13DM496	Unknown	*	Cease cultivation/protect site; test	•		6-16-1989
13DM497	Unknown	*	Cease cultivation/protect site; test	•		6-16-1989
13DM498	Unknown	*	None unless impacted by government		•	7-12-1989
13DM499	Unknown	*	None unless impacted		•	7-12-1989
13DM500	Unknown	*	Stabilize/protect from impacts; test	•		7-21-1989
13DM501	Unknown	*	None		•	7-21-1989
13DM502	Unknown	*	Stabilize/protect from impacts; test	•		7-22-1989
13DM503	Unknown	*	Avoid and test	•		6-29-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM504	Unknown	*	Avoid and test	•		7-23-1989
13DM505	Unknown	*	Avoid and test	•	•	6-30-1989in
13DM506	Unknown	*	None		•	6-30-1989
13DM507	Unknown	*	Avoid and test		•	6-30-1989
13DM508	Unknown	*	None unless impacted by government		•	7-13-1989
13DM509	Unknown	*	Record and evaluate if impacted		•	7-17-1989
13DM510	Unknown	*	Record and evaluate if impacted		•	7-19-1989
13DM511	Unknown	*	None unless impacted by government		•	7-17-1989
13DM512	Unknown	*	None unless impacted by government		•	11-14-1989
13DM513	Unknown	Unknown	Avoid and test	•		7-21-1989
13DM514	Unknown	Unknown	Avoid and test	•		11-6-1989
13DM515	Unknown	*	None	•	•	6-26-1989
13DM516	Unknown	*	None		•	6-26-1989
13DM517	No	No	Avoid and test	•	•	6-26-1989
13DM518	Unknown	*	None unless impacted by government		•	7-13-1989
13DM519	No	No	Avoid and test	•		7-18-1989
13DM520	Unknown	*	None unless impacted by government		•	11-13-1989
13DM521	Unknown	*	None unless impacted by government		•	11-13-1989
13DM522	Unknown	*	Avoid and test	•	•	7-12-1989
13DM523	No	No	Prehistoric test	•	•	7-14-1989

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Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM524	Unknown	*	Protect Mounds	•		7-13-1989
13DM525	Unknown	*	None unless impacted by government		•	7-13-1989
13DM526	Unknown	*	None unless impacted by government		•	11-15-1989
13DM527	Unknown	*	Avoid and test	•		7-13-1989
13DM528	Unknown	*	None unless impacted by government		•	7-13-1989
13DM529	Unknown	*	Avoid and test	•		7-14-1989
13DM530	Unknown	*	Protect Immediately	•		6-2-1989
13DM531	Unknown	*	Avoid and test	•	•	6-2-1989
13DM532	Unknown	*	Avoid and test	•		4-30-1989
13DM533	Unknown	*	None unless impacted by government		•	3-31-1990
13DM534	Unknown	*	None unless impacted by government		•	3-31-1990
13DM535	Unknown	*	Avoid and test		•	3-31-1990
13DM536	Unknown	*	None unless impacted by government		•	3-31-1990
13DM537	Unknown	*	None unless impacted by government		•	4-1-1990
13DM538	No	*Draft-waiting for concurrence	None unless impacted by government		•	4-3-1990
13DM539	Unknown	*	None unless impacted by government		•	3-30-1990
13DM540	Unknown	*	None unless impacted by government		•	4-2-1990
13DM541	Potentially (partial site)	Potentially (partial site)	None unless impacted by government	•	•	11-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM542	Unknown	*	None unless impacted by government		•	7-25-1989
13DM543	Unknown	*	None unless impacted by government		•	11-14-1989
13DM544	Unknown	*	None unless impacted by government		•	11-14-1989
13DM545	Unknown	*	None unless impacted by government		•	7-26-1989
13DM546	Unknown	*	None unless impacted by government		•	7-26-1989
13DM547	Unknown	*	Avoid and test	•		7-24-1989
13DM548	Unknown	*	None unless impacted by government		•	7-24-1989
13DM549	Unknown	*	None unless impacted by government		•	7-24-1989
13DM550	Unknown	*	None unless impacted by government		•	7-26-1989
13DM551	Unknown	*	None		•	7-26-1989
13DM552	Unknown	*	None unless impacted by government	•	•	5-1989
13DM553	Unknown	*	Avoid and test	•		7-1989
13DM554	Unknown	*	Avoid and test	•	•	7-1989
13DM555	Unknown	*	Avoid and test	•		7-20-1989
13DM556	Unknown	*	Avoid and test	•		7-20-1989
13DM557	Unknown	*	Avoid and test	•		7-20-1989
13DM558	Unknown	*	Avoid and test	•		7-20-1989
13DM559	Unknown	*	None		•	11-15-1989
13DM560	Unknown	*	None		•	7-20-1989

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Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM561	Unknown	*	None		•	7-20-1989
13DM562	Unknown	*	Avoid and test	•		7-20-1989
13DM563	Unknown	*	None unless impacted by government		•	7-20-1989
13DM564	Unknown	*	Avoid and test	•		7-20-1989
13DM565	Unknown	*	Avoid and test	•		7-24-1989
13DM566	Unknown	*	Avoid and test	•		7-24-1989
13DM567	Unknown	*	None unless impacted by government		•	7-24-1989
13DM568	Unknown	*	Avoid and test	•		7-26-1989
13DM569	Unknown	*	None unless impacted by government		•	11-15-1990
13DM570	Unknown	*	Avoid and test		•	7-26-1989
13DM571	Unknown	*	Avoid and test	•		11-6-1989
13DM572	Unknown	*	Avoid and test	•	•	11-6-1989
13DM573	Unknown	*	Avoid and test	•		Unknown
13DM574	Yes	Yes	Avoid and test	•	•	6-1-1989
13DM575	Unknown	*	None		•	5-31-1989
13DM576	Unknown	*	Avoid and test	•	•	3-29-1990
13DM577	No	No	Avoid and test	•	•	3-29-1990
13DM578	Unknown	*	None unless impacted by government		•	11-16-1989
13DM579	Unknown	*	None unless impacted by government		•	11-16-1989
13DM580	Unknown	*	None unless impacted by government		•	7-20-1989
13DM581	Unknown	*	None unless impacted by government		•	11-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM582	Unknown	*	None unless impacted by government		•	11-15-1989
13DM583	Unknown	*	None		•	3-29-1990
13DM584	None	None	Avoid and test	•	•	3-29-1990
13DM585	Unknown	*	Avoid and test	•		4-3-1990
13DM586	Unknown	*	None unless impacted by government		•	4-3-1990
13DM587	Unknown	*	None unless impacted by government		•	4-4-1990
13DM588	No	No	Avoid and test	•		11-15-1989
13DM589	No	No	Avoid and test	•	•	6-1-1989
13DM590	Unknown	*	Avoid and test	•		7-6-1989
13DM591	No	No	Avoid	•	•	11-15-1989
13DM592	Unknown	*	None unless impacted by government		•	7-15-1989
13DM593	Unknown	*	None unless impacted by government		•	7-15-1989
13DM594	Unknown	*	None		•	11-6-1989
13DM595	Unknown	*	None unless impacted by government		•	7-20-1989
13DM596	Unknown	*	Avoid and test	•		11-6-1989
13DM597	Unknown	*	Avoid and test	•	•	11-6-1989
13DM598	Unknown	*	None		•	6-28-1989
13DM599	No	No	None		•	11-10-1989
13DM600	Unknown	*	None		•	11-10-1989
13DM601	Unknown	*	None unless impacted by government		•	11-10-1989
13DM602	No	No	Avoid and test	•		11-10-1989

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM603	No	No	Avoid and test	•		11-10-1989
13DM604	Unknown	*	None		•	11-10-1989
13DM605	Unknown	*	None		•	11-12-1989
13DM606	Unknown	*	None unless impacted by government		•	11-12-1989
13DM607	Unknown	*	None unless impacted by government		•	4-6-1990
13DM608	Unknown	*	None		•	11-12-1989
13DM609	Unknown	*	None		•	11-12-1989
13DM610	Unknown	*	None		•	6-19-1989
13DM611	Yes (partial site)	Yes (partial site)	Avoid and test	•	•	6-19-1989
13DM612	Unknown	*	None unless impacted by government		•	11-6-1989
13DM613	Unknown	*	None unless impacted by government		•	11-7-1989
13DM614	Unknown	*	Avoid and test		•	11-7-1989
13DM615	Unknown	*	None unless impacted by government		•	7-9-1989
13DM616	Unknown	*	None	•	•	11-7-1989
13DM617	Unknown	*	None		•	11-1989
13DM618	Unknown	*	Avoid and test	•		11-8-1989
13DM619	Unknown	*	Avoid and test	•		11-8-1989
13DM620	Unknown	*	Avoid and test	•		11-8-1989
13DM621	Unknown	*	None		•	11-8-1989
13DM622	Unknown	*	None	•	•	11-8-1989
13DM625	Unknown	*	None		•	Unknown
13DM630	Unknown	*	None		•	Unknown
13DM631	Unknown	*	None		•	Unknown

IOWA ARMY AMMUNITION PLANT ARCHAEOLIGICAL SITES RECORDED THROUGH OCTOBER 2012

Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM1052	No	*Not enough data	Avoid and test	•		8-2005
13DM1053	No	No	None	•		8-2005
13DM1054	Potentially	*Not enough data	Avoid and test	•		8-2005
13DM1055	No	No	None	•		8-2005
13DM1056	No	No	None	•		8-2005
13DM1057	Potentially	Potentially	Avoid and test	•		8-2005
13DM1058	Potentially	Potentially	Avoid and test	•		8-2005
13DM1059	No	No	None	•		8-2005
13DM1060	No	No	None	•		8-2005
13DM1061	No	No	None	•		8-2005
13DM1062	No	No	None	•		8-2005
13DM1063	No	No	None	•		8-2005
13DM1064	No	No	None	•		8-2005
13DM1067	No	No	None	•	•	1-2009
13DM1068	Potentially (portions of site)	Potentially (portions of site)	Protect	•		1-2009
13DM1105	No	*Waiting for concurrence	None	•		12-2008
13DM1106	No	*Waiting for concurrence	None	•		12-2008
13DM1107	Potentially	*Waiting for concurrence	Avoid and minimize impacts	•		12-2008
13DM1108	No	*Waiting for concurrence	None	•	•	12-2008
13DM1109	No	*Waiting for concurrence	None		•	12-2008
13DM1110	No	*Waiting for concurrence	None		•	12-2008

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Site No.	Contractor's NRHP Recommendations	SHPO NRHP Determination	Management Action Needed	Prehistoric	Historic	Date Recorded
13DM1272	Potentially	Potentially	Avoid and test	•		11-2010
13DM1273	No	No	None	•		11-2010
13DM1274	No	No	None	•		11-2010
13DM1275	Unknown	Unknown	Avoid and test	•		11-2010
13DM1276	No	No	None	•		11-2010
13DM1277	Potentially	Potentially	Avoid and test	•		11-2010
13DM1278	No	No	None	•		11-2010
13DM1279	No	No	None	•		11-2010
13DM1280	No	No	None	•		11-2010
13DM1281	No	No	None	•		11-2010
13DM1293	No	No	None	•		11-2010
13DM1294	No	No	None		•	8-2010
13DM1295	No	No	None		•	8-2010
13DM1296	No	No	None		•	8-2010
13DM1297	Unknown	Unknown	Avoid and test	•		11-2010
13DM1298	Unknown	Unknown	Avoid and test	•		11-2010
13DM1319	No	No	None	•	•	9-2011
13DM1320	No	No	None		•	9-2011
13DM1321	No	No	None	•	•	9-2011
13DM1322	No	No	None	•	•	9-2011
13DM1323	No	No	None	•		9-2011

*SHPO Concurrence Needed

APPENDIX D: ARCHITECTURAL BUILDINGS AND STRUCTURES AT THE IAAAP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00002	400-128-2	1951	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00008	400-154	1941	P	Vehicle Fueling Facility	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00014			P	Communications Lines	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00015			P	Communications Lines	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00016			P	POL Pipeline	No	N/A	N/A	N/A	
0001A			P	Miscellaneous Storage Tank and Basin	No	N/A	N/A	N/A	
00028	500-37-6	1952	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00030	400-129-1	1941	S	Installation Support Vehicle Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00031	400-153	1941	S	Installation Support Vehicle Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00033	400-179	1941	S	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00035	500-129-4	1946	S	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00045	2-01	1941	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00046	2-02	1941	P	Utility Building	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									mitigated through ACHP Program Comments
00050	2-03	1941	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00051	2-04	1941	P	Operations Supply Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00052	2-05-1	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00053	2-05-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00054	2-06-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00055	2-06-2	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00056	2-08-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00057	2-08-2	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00058	2-10	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00059	2-12	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00060	2-13	1951	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
00061	2-15	1953	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00062	2-16-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00063	2-16-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00064	2-17	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00065	2-25	1944	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00066	2-50	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00067	2-51	1941	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00068	2-52	1941	P	General Administrative Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00069	2-69-1	1953	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00070	2-82-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00071	2-82-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00072	2-82-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00073	2-82-4	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
00074	2-82-5	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00076	2-82-7	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00077	2-82-8	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00078	2-82-9	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00079	2-82-10	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00080	2-82-11	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
00081	2-82-12	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00083	2-82-14	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00084	2-82-15	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00085	2-82-16	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00086	2-82-17	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00087	2-82-18	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00088	2-82-19	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00089	2-82-20	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00090	2-82-21	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00091	2-82-22	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00092	2-99-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
00093	2-99-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00094	2-99-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00095	2-99-4	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00096	2-99-5	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00097	2-99-6	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00098	2-99-7	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00099	2-99-8	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00100	2-137-1	1941	P	Locker Room	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00103	2-140-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00104	2-140-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00108	2-140-7	1953	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
00109	2-140-8	1953	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00110	2-140-9	1955	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00111	3-01	1941	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00112	3-03	1941	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00113	3-04	1941	P	Operations Supply Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00114	3-05-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00115	3-05-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00116	3-06-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00117	3-06-2	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00118	3-08-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00119	3-08-2	1941	P	Ammunition Storage, Depot and	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Arsenal					through ACHP Program Comments
00120	3-10	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00121	3-12	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00122	3-140-6	1979	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00123	3-16-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00124	3-16-2	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00125	3-17	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00126	3-50	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00127	3-51	1941	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00128	3-52	1941	P	General Administrative Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00129	3-82-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00130	3-82-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00131	3-82-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00132	3-82-4	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00133	3-82-5	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00134	3-82-7	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00135	3-82-8	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00136	3-82-9	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00137	3-82-10	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00138	3-82-11	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00139	3-82-12	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
0013A	500-198-9	1964	P	Communications Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00140	3-82-14	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00141	3-82-15	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00142	3-82-16	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00143	3-82-17	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00144	3-82-8	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00145	3-82-9	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00146	3-83	1941	P	Installation Gas	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
00147	3-99-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00148	3-99-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00149	3-99-3	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00150	3-99-4	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00151	3-99-5	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00152	3-99-6	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00153	3-137-1	1941	P	Locker Room	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00155	3-140-1	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00156	3-140-2	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00158	3-140-4	1954	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00159	3-140-5	1954	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
00160	3A-01	1942	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00161	3A-02	1942	P	Heat Source	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00165	3A-03-1	1942	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00166	3A-03-2	1942	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00167	3A-04	1942	P	Operations Supply Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00168	3A-05-1	1942	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00169	3A-05-2	1942	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00170	3A-06	1942	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00171	3A-08-1	1942	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00172	3A-08-2	1942	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00173	3A-10-5	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00174	3A-12	1942	P	Operations Supply Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00175	3A-16-1	1942	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00176	800-70-1	1974	P	Industrial Waste Treatment	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00177	3A-20-1	1942	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00178	3A-20-2	1942	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00179	3A-23	1942	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00180	3A-50-1	1942	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00181	3A-50-2	1942	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00182	3A-99-1	1942	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00183	3A-99-2	1942	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00187	3-212-2	1972	P	Refrigeration and Air Conditioning Source	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00188	3A-99-7	1942	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
00189	3A-140-2	1945	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00191	4-83	1941	P	Installation Gas Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00192	3A-99-8	1972	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00201	4B-21	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00206	5A-21	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00207	5A-25	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00208	5A-26	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00210	5A-28	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00211	5A-29	1941	P	Ammunition Production Plant	No	N/A	Potentially	Potentially	Eligible; mitigated through ACHP Program Comments
00212	5A-55	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00218	5A-140-2	1953	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00219	5B-21	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00220	5B-25	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00221	5B-26	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00222	5B-27	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00223	5B-28	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00224	5B-29	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00225	5B-55	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00226	5B-56	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00227	5B-137-1	1941	P	Locker Room	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00228	5B-137-2	1941	P	Locker Room	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00229	5B-137-3	1941	P	Locker Room	No	N/A	Unknown	Potentially	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00230	5B-140-1	1953	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00231	5B-140-2	1953	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00232	6-11	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00233	6-18-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00234	6-19	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00235	6-25	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00236	6-28	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00237	6-31	1942	P	Installation Gas Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00238	6-33	1941	P	RDT&E Laboratory	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00239	6-34-1	1942	P	Ammunition Production Plant	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
0023A	11-198	1982	P	Loading Platform/Ramp	No	N/A	Unknown	N/A	
00240	6-34-2	1942	P	Ammunition	No	N/A	Potentially	Unknown	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
00241	6-34-3	1942	P	Ammunition Production Plant	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
00242	6-35	1942	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00243	6-49	1942	P	Ammunition Production Plant	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
00244	6-68	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00245	6-69-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00246	6-69-2	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00247	6-69-3	1942	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00248	6-69-4	1942	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00249	6-69-5	1942	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00250	6-69-6	1942	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00251	6-76	1941	P	Operations Supply	No	N/A	Potentially	Unknown	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Building					mitigated through ACHP Program Comments
00252	6-87	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00253	6-88	1941	P	Ammunition Production Plant	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
00254	6-89	1941	P	Ammunition Maintenance Facility, Depot	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
00255	6-90	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00256	6-91	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00258	6-92	1972	P	Operations Supply Building	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
00259	6-94	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00261	6-96	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00262	6-97	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	Unknown	Eligible; mitigated through ACHP Program Comments
00263	6-98	1942	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00264	6-137-1	1941	P	Locker Room	No	N/A	Unknown	Unknown	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00265	6-137-2	1942	P	Locker Room	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00266	6-137-3	1942	P	Locker Room	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00267	6-206	1942	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00276	6-67-1	1973	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00280	6-67-2	1972	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00284	8-81-3	1942	P	Ammunition Maintenance Shop, Depot	No	N/A	Potentially	No No	Eligible; mitigated through ACHP Program Comments
00285	8-81-4	1942	P	Ammunition Production Plant	No	N/A	Potentially	No	Eligible; mitigated through ACHP Program Comments
00286	8-83	1942	P	Installation Gas Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00293	9-62	1942	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00295	5A-99-1	1960	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00298	900-189-1	1951	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00301	900-194-7	1951	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00302	900-194-8	1951	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00303	900-198-1	1951	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00304	900-199-2	1952	P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00305	900-198-2	1987	S	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	
00309	3A-140-3	1945	S	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00310	3A-140-4	1945	S	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00312	5B-03-3	1961	S	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00313	6-18-2	1941	S	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00315	900-31	1981	P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	
00316	9-64	1943	S	Ammunition Maintenance Shop, Depot	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00317	6-67-3	1972	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00319	BG-31	1982	P	Installation Gas Production Plant	No	N/A	Unknown	N/A	
00322	800-04	1943	S	Ammunition Maintenance Shop, Depot	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00323	800-08	1943	S	Ammunition Storage, Installation	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00324	800-16	1943	S	Ammunition Storage, Installation	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00326	800-68	1987	P	Ammunition Storage, Installation	No	N/A	Unknown	Unknown	
00328	800-82-4	1987	P	Sidewalk and Walkway	No	N/A	Unknown	Unknown	
00329	800-191	1943	S	Ammunition Maintenance Shop, Depot	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00330	800-192	1943	S	Ammunition Maintenance Shop, Depot	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00336	800-03-2	1988	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	Unknown	
00339	800-03	1943	T	Hazardous Materials Storage, Installation	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00340	600-86-2	1975	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	
00341	800-193	1943	T	Ammunition Maintenance Shop, Depot	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
00345	600-84	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00346	10-41-4 (E-4)	1941	P	Ammunition Storage,	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00347	10-41-5 (E-5)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00348	10-41-7 (E-7)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00349	10-41-8 (E-8)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00350	10-41-9 (E-9)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00351	10-41-19 (E-19)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00352	10-41-20 (E-20)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00353	10-41-21 (E-21)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00354	10-41-22 (E-22)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00355	10-41-23 (E-23)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00356	10-41-25 (E-25)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00357	10-41-26 (E-26)	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00358	20-42-1 (D-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00359	20-42-2 (D-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00360	20-42-3 (D-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00361	20-42-4 (D-4)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00362	20-42-5 (D-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00363	20-42-6 (D-6)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00364	20-42-7 (D-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00365	20-42-8 (D-8)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00366	20-42-9 (D-9)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00367	20-42-10 (D-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00368	20-42-11 (D-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00369	20-42-12 (D-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00370	20-42-13 (D-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00371	20-42-14 (D-14)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00372	20-42-15 (D-15)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00373	20-42-16 (D-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00374	20-42-17 (D-17)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00375	20-42-18 (D-18)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00376	20-42-19 (D-19)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00377	2-42-20 (D-20)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00378	2-42-21 (D-21)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00379	2-42-22 (D-22)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00380	2-42-23 (D-23)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00381	2-42-24 (D-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00382	2-42-25 (D-25)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00383	2-42-26 (D-26)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00384	2-42-27 (D-27)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00385	2-42-28 (D-28)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00386	2-42-29 (D-29)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00387	2-42-30 (D-30)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00388	2-42-31 (D-31)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00389	2-42-32 (D-32)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00390	2-42-33 (D-33)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00391	2-42-34 (D-34)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00392	2-42-35 (D-35)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00393	2-42-36 (D-36)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00394	2-42-37 (D-37)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00395	2-42-38 (D-38)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00396	2-42-39 (D-39)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00397	2-42-40 (D-40)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00398	2-42-41 (D-41)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00399	2-42-42 (D-42)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00400	2-42-43 (D-43)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00401	2-42-44 (D-44)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00402	21-38-1 (D-45)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00403	21-38-2 (D-46)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00404	21-38-3 (D-47)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00405	21-38-4 (D-48)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00406	21-38-5 (D-49)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00407	21-38-6 (D-50)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00408	21-38-7 (D-51)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00409	21-38-8 (D-52)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00410	21-38-9 (D-53)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00411	21-38-10 (D-54)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00412	21-38-11 (D-55)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00413	21-38-12 (D-56)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00414	21-38-24 (D-68)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00415	21-38-25 (D-69)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00416	30-43-10 (F-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00417	30-43-12 (F-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00418	30-43-15 (F-15)	1941	P	Ammunition Storage, Installation	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00419	30-43-16 (F-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00420	30-43-17 (F-17)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00421	30-43-18 (F-18)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00422	30-43-19 (F-19)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00423	30-43-20 (F-20)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00424	30-43-21 (F-21)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00425	30-43-22 (F-22)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00426	30-43-23 (F-23)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00427	30-43-25 (F-25)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00428	30-43-26 (F-26)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00429	30-43-29 (F-29)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00430	30-43-32 (F-32)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00431	30-43-35 (F-35)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00432	30-43-42 (F-42)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00433	30-43-44 (F-44)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00434	40-44-3 (K-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00435	40-44-4 (K-4)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00436	40-44-5 (K-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00437	40-44-10 (K-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00438	40-44-11 (K-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00439	40-44-12 (K-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00440	40-44-17 (K-17)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00441	40-44-18 (K-18)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00442	40-44-19 (K-19)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00443	10-41-1 (E-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00444	10-41-2 (E-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00445	10-41-3 (E-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00447	10-41-10 (E-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00448	10-41-11 (E-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00449	10-41-12 (E-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00450	10-41-13 (E-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00451	10-41-14 (E-14)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00452	10-41-15 (E-15)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00453	10-41-16 (E-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00454	10-41-17 (E-17)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00455	10-41-18 (E-18)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00456	10-41-24 (E-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00457	10-41-27 (E-27)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00458	10-41-28 (E-28)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00459	10-41-29 (E-29)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00460	10-41-30 (E-30)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00461	10-41-31 (E-31)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00462	10-41-32 (E-32)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00463	10-41-33 (E-33)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00464	10-41-34 (E-34)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00465	18-40-1 (G-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00466	18-40-2 (G-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00467	18-40-3 (G-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00468	18-40-4 (G-4)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00469	18-40-5 (G-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00470	18-40-6 (G-6)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00471	18-40-7 (G-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00472	18-40-8 (G-8)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00473	18-40-9 (G-9)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00474	18-40-10 (G-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00475	18-40-11 (G-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00476	18-40-12 (G-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00477	18-41-13 (G-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00478	18-40-14 (G-14)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00479	18-40-15 (G-15)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00480	18-40-16 (G-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00481	18-40-17 (G-17)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00482	18-40-18 (G-18)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00483	18-40-19 (G-19)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00484	18-40-20 (G-20)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00485	18-40-21 (G-21)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00486	18-40-22 (G-22)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00487	18-40-23 (G-23)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00488	18-40-24 (G-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00489	18-40-25 (G-25)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00490	18-40-26 (G-26)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00491	18-40-27 (G-27)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00492	21-38-13 (D-57)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00493	21-38-14 (D-58)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00494	21-38-15 (D-59)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00495	21-38-16 (D-60)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00496	21-38-17 (D-61)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00497	21-38-18 (D-62)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00498	21-38-19 (D-63)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00499	21-38-20 (D-64)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00500	21-38-21 (D-65)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00501	21-38-22 (D-66)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00502	21-38-23 (D-67)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00503	21-38-26 (K-45)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00504	21-38-27 (K-46)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00505	21-38-28 (K-47)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00506	21-38-29 (K-48)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00507	21-38-30 (K-49)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00508	21-38-31 (K-50)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00509	21-38-32 (K-51)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00510	21-38-33 (K-52)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00511	21-38-34 (K-53)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00512	21-38-35 (K-54)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00513	24-45-1 (H-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00514	24-45-2 (H-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00515	24-45-3 (H-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00516	24-45-4 (H-4)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00517	24-45-5 (H-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00518	24-45-6 (H-6)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00519	24-45-7 (H-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00520	24-45-8 (H-8)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00521	24-45-9 (H-9)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00522	25-26-1 (H-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00523	25-26-2 (H-11)	1941	S	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00524	25-26-3 (H-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00525	25-26-4 (H-13)	1941	T	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00526	25-26-5 (H-14)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00527	30-43-1 (F-1)	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00528	30-43-2 (F-2)	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00529	30-43-3 (F-3)	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00530	30-43-4 (F-4)	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00531	30-43-5 (F-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00532	30-43-6 (F-6)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00533	30-43-7 (F-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00534	30-43-8 (F-8)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00536	30-43-11 (F-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00537	30-43-13 (F-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00538	30-43-14 (F-14)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00539	30-43-24 (F-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00540	30-43-27 (F-27)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00541	30-43-28 (F-28)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00542	30-43-30 (F-30)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00543	30-43-31 (F-31)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00544	30-43-33 (F-33)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00545	30-43-34 (F-34)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00546	30-43-36 (F-36)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00547	30-43-37 (F-37)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00548	30-43-38 (F-38)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00549	30-43-39 (F-39)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00550	30-43-40 (F-40)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00551	30-43-41 (F-41)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00552	30-43-42 (F-42)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00553	40-44-1 (K-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00554	40-44-2 (K-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00555	40-44-6 (K-6)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00556	40-44-7 (K-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00557	40-44-8 (K-8)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00558	40-44-9 (K-9)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00559	40-44-13 (K-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00560	40-44-14 (K-14)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00561	40-44-15 (K-15)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00562	40-44-16 (K-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00563	40-44-20 (K-20)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00564	40-44-21 (K-21)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00565	40-44-22 (K-22)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00566	40-44-23 (K-23)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00567	40-44-24 (K-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00568	40-44-25 (K-25)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00569	40-44-26 (K-26)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00570	40-44-27 (K-27)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00571	40-44-28 (K-28)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00572	40-44-29 (K-29)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00573	40-44-30 (K-30)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00574	40-44-31 (K-31)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00575	40-44-32 (K-32)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00576	40-44-33 (K-33)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00577	40-44-34 (K-34)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00578	40-44-35 (K-35)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00579	40-44-36 (K-36)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00580	40-44-37 (K-37)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00581	40-44-38 (K-38)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00582	40-44-39 (K-39)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00583	40-44-40 (K-40)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00584	40-44-41 (K-41)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00585	40-44-42 (K-42)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00586	40-44-43 (K-43)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00587	40-44-44 (K-44)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00588	50-45-1 (J-19)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00589	50-45-2 (J-20)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00590	50-45-3 (J-21)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00591	50-45-4 (J-22)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00592	50-45-5 (J-23)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00593	50-45-6 (J-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00594	50-45-7 (J-8)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00595	50-45-8 (J-9)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00596	50-45-9 (J-10)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00597	50-45-10 (J-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00598	50-45-11 (J-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00599	50-45-12 (J-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00600	50-45-13 (J-14)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00601	50-45-14 (J-15)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00602	50-45-15 (J-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00603	60-36-1 (J-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00604	60-36-2 (J-4)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00605	60-36-3 (J-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00606	60-36-4 (J-6)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00607	60-36-5 (J-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00608	70-47-1 (J-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00609	70-47-2 (J-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00610	80-48-1 (J-17)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00611	80-48-2 (J-18)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
00618	11-37-5 (L-5)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00619	11-37-6 (L-6)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00620	11-37-7 (L-7)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00621	11-37-8 (L-8)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00622	11-37-9 (L-9)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00623	11-37-10 (L-10)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00624	11-37-11 (L-11)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00625	11-37-12 (L-12)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00626	11-37-13 (L-13)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00627	11-37-14 (L-14)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00628	11-37-15 (L-15)	1941	P	Covered Storage Building,	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
00629	11-37-16 (L-16)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00630	11-37-17 (L-17)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00631	11-37-18 (L-18)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00632	11-37-19 (L-19)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00633	11-37-20 (L-20)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00634	11-37-21 (L-21)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00635	11-37-22 (L-22)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00636	11-37-23 (L-23)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00637	11-37-24 (L-24)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00638	11-37-25 (L-25)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00639	11-37-26 (L-26)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00640	11-37-27 (L-27)	1942	P	Miscellaneous Paved Area	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00641	11-37-28 (L-28)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00642	11-37-29 (L-29)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00643	11-37-30 (L-30)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00644	11-37-31 (L-31)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00645	11-37-32 (L-32)	1942	P	Covered Storage	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Building, Installation					mitigated through ACHP Program Comments
00646	11-37-33 (L-33)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00647	11-37-34 (L-34)	1942	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00648	14-37-1 (M-1)	1942	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00649	14-37-2 (M-2)	1942	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00650	14-37-3 (M-3)	1942	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00651	14-37-4 (M-4)	1942	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00652	500-30-6	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00653	500-30-7	1941	P	Covered Storage Building, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00655	500-206-1	1957	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00661			P	Open Ammunition Storage	No	N/A	N/A	N/A	
00663	500-143-2	1949	T	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00664	500-143-3	1949	T	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00670			P	Open Storage, Installation	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00673	400-198-3	1942	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00680			P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00682	HOUSE 1	1941	P	Family Housing Dwelling	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00694			P	Miscellaneous Component of Other Facility	No	N/A	N/A	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00695			P	Miscellaneous Component of Other Facility	No	N/A	N/A	N/A	
00710	300-198	1967	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00712			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
00743	5B-99-1	1976	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	
00745	5B-99-2	1975	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	
00746		1975	T	Communications Facility	No	N/A	Unknown	N/A	
00750			P	Miscellaneous Component of Other Facility	No	N/A	N/A	N/A	
00751			P	Miscellaneous Component of Other Facility	No	N/A	N/A	N/A	
00804	500-125	1941	P	Laundry/Dry Cleaning Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00818	200-131-3	1941	T	Fire Station Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00835			P	General Purpose Small Arms Range	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00838	500-214	1976	P	Water Pump Facility, Potable	No	N/A	Unknown	N/A	
00839	500-215	1976	P	Utility Building	No	N/A	Unknown	N/A	
00843			P	Exterior Lighting, Pole	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00848	500-144	1941	P	Utility Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
00861			P	Installation Support Vehicle Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00862	500-03	1941	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00865			P	Heat Distribution Line	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00866	4A-164-1	1982	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
00867	4A-217-1	1982	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
00868			P	Heat Distribution Line	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00870			P	Sewage Treatment	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00871	500-73	1941	P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00872			P	Septic Tank and Drain Field	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00873	500-73-1	1975	P	Miscellaneous Utility Facility	No	N/A	Unknown	N/A	
00874	2-70-1	1971	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00875	2-70-2	1971	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00885	3-70-1	1971	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00886	3-70-2	1971	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00887	3A-70-1	1971	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00888	3A-70-2	1971	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00889	500-159-1		P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00890	500-73-2	1978	P	Utility Building	No	N/A	Unknown	N/A	
00891			P	Sewer and Industrial Waste Line	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00892	500-164-1	1941	T	Sewage Lift Stations	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00893	500-164-2	1941	T	Sewage Lift Stations	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00894	500-164-3	1941	T	Sewage Lift Stations	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00901	3A-145	1941	P	Water Storage, Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00902	5-145	1941	P	Water Storage, Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00903	6-145	1941	P	Water Storage, Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00906	500-145-1	1941	P	Water Storage, Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00910	500-174	1963	P	Water Pump Facility, Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00911	500-165-5	1983	P	Water Well, Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00914	500-218	1941	P	Reservoir, Water	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00915	700-212	1942	P	Reservoir, Water	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00916			P	Water Distribution Line, Potable	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00917	500-133	1941	P	Utility Building	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									mitigated through ACHP Program Comments
00918	700-174-1	1941	P	Water Pump Facility, Non-Potable	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00920	700-140	1942	T	Utility Building	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00922			P	Road, Surfaced	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00923			P	Road, Surfaced	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00924			P	Road, Unsurfaced	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00925			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00926			T	Road, Unsurfaced	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00927			P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00928			P	Sidewalk and Walkway	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00929	3A-82-1	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00930	3A-82-2	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00931	3A-82-3	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00932	3A-82-4	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00933	3A-82-5	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00934	3A-82-6	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00935	3A-82-7	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00936	3A-82-8	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00937	3A-82-9	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00938	3A-82-10	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00939	3A-82-11	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00940	3A-82-12	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00941	3A-82-13	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00942	3A-82-14	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00943	3A-82-15	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00944	3A-82-16	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00945	3A-82-17	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00946	3A-82-18	1942	P	Ammunition Production Plant	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
00947	3A-82-20	1941	P	Sidewalk and	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Walkway					mitigated through ACHP Program Comments
00949	5A-99-2	1971	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00973	5B-82-1	1941	P	Sidewalk and Walkway	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00974	5B-82-2	1941	P	Sidewalk and Walkway	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00975	5B-82-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00976	5B-82-4	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
00977	5B-82-5	1941	P	Sidewalk and Walkway	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00978	5B-82-6	1941	P	Sidewalk and Walkway	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00979	5B-82-7	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00980	5B-82-8	1941	P	Sidewalk and Walkway	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00981	5B-82-9	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00982	5B-82-10	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
00983	5B-82-11	1941	P	Ammunition Production Plant	No	N/A	Unknown	Potentially	Eligible; mitigated through ACHP Program Comments
00984	6-82-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00985	6-82-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00986	6-82-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00987	6-82-4	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
00988	6-82-5	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00989	6-82-6	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00990	6-82-7	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00992	6-82-9	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00993	6-82-10	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00994	6-82-11	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
00995	6-82-12	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00996	6-82-13	1941	P	Sidewalk and Walkway	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
00997	6-82-14	1941	P	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00998	6-82-15	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
00999	6-82-16	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01000	6-82-17	1941	P	Ammunition	No	N/A	Unknown	Unknown	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
01001	6-82-18	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01002	6-82-19	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01003	6-82-20	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01004	6-82-21	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01005	6-82-22	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
01006	6-82-23	1941	P	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01007	6-82-24	1941	P	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01008	6-82-25	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01009	6-82-26	1941	P	Sidewalk and Walkway	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01010	6-82-27	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01011	6-82-28	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
01012	6-82-29	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01013	6-82-30	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01014	6-82-31	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01015	6-82-32	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01016	6-82-33	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
01017	6-82-34	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01018	6-82-35	1941	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01039	2-82-24	1941	S	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01040	6-82-37	1974	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01042	800-82-1	1943	P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01043	800-82-2	1943	P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
01044			P	Railroad Track	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01047			P	Exterior Lighting, Pole	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01048			P	Exterior Lighting, Pole	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01053			P	Sewer and Industrial Waste Line	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01054			P	Grounds Drainage Dams	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01055			P	Sewer and	No	N/A	N/A	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Industrial Waste Line					mitigated through ACHP Program Comments
01056			P	Boundary Fence and Wall	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01057			P	Boundary Fence and Wall	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01063	6-115-1	1942	T	Security Support Building	No	N/A	N/A	Unknown	Eligible; mitigated through ACHP Program Comments
01064	6-82-38	1973	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01065	3A-115-3	1942	T	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
01075	200-115-5	1941	T	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01076	6-82-39	1973	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01077	6-82-40	1973	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01079	800-115-1	1943	T	Security Support Building	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01080			P	Miscellaneous Component of Other Facility	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
01081	LAND	1941		Government Owned land	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
01088	6-82-41	1973	P	Ammunition Production Plant	No	N/A	Unknown	Unknown	Eligible; mitigated through ACHP Program Comments
01089	400-151-1	1973	P	Range Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01090	800-52-1	1983	S	General Administrative Building	No	N/A	Unknown	Unknown	
01103			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
01106			P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
01112	400-115-4	1978	P	Security Support Building	No	N/A	Unknown	N/A	
01113	4A-115-1	1983	P	Security Support Building	No	N/A	Unknown	N/A	
01114	500-108	1986	P	Railroad Bridge	No	N/A	Unknown	N/A	
01115	500-103	1986	P	Utility Building	No	N/A	Unknown	N/A	
01116	500-134-1	1986	P	Utility Building	No	N/A	Unknown	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
01117	500-104-2	1986	P	Utility Building	No	N/A	Unknown	N/A	
01119			P	Hazardous Waste Landfill	No	N/A	N/A	N/A	
01120	500-107-1	1986	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
01121			P	Septic Lagoon and Settlement Ponds	No	N/A	N/A	N/A	
01122			P	Septic Lagoon and Settlement Ponds	No	N/A	N/A	N/A	
01123	500-198-16	1986	P	Water Treatment Facility	No	N/A	Unknown	N/A	
01124	500-107-1	1986	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
0195A	4A-22		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05002	30-43-9 (F-9)	1941	P	Emergency Operations Center / SCIF	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05004	1-01E	1948	P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05011	1-136-1	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05012	1-136-2	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05013	1-136-3	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05014	1-136-4	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05015	1-136-5	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05016	1-136-6	1941	P	Miscellaneous Operations Support	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Building					through ACHP Program Comments
05017	1-136-7	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05018	1-136-8	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05019	1-136-9	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05020	1-136-10	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05021	1-136-11	1941	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05022	BG-5	1958	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05023	BG-11	1958	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05025			P	Revetment	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05026	1-129	1951	P	Electronic and Communication Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05028	23-51	1949	P	Installation Support Equipment Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05029	1-01	1941	P	Facility Engineer Maintenance Shop	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05030	1-03-1	1962	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05034	1-124-2	1966	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05035	1-02	1941	P	Utility Building	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05036	500-198-14	1984	P	Utility Building	No	N/A	Unknown	N/A	
05037	500-198-15	1984	P	Utility Building	No	N/A	Unknown	N/A	
05042	1-05-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05043	1-05-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05044	1-06-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05045	1-06-2	1941	P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05046	1-07	1951	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05047	1-08-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05048	1-08-1A	1949	P	Public Restroom/Shower	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05049	1-10	1941	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
05051	1-12	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05052	1-13	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05053	1-14	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05054	1-15	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05055	1-16	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05056	1-17	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05057	1-40	1951	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05058	1-50	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05060	1-52-1	1941	P	Non-Exchange Eating Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05061	1-53	1941	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05062	1-60	1951	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05063	1-61	1951	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05064	1-63-1	1957	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05065	1-63-2	1957	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05066	1-63-3	1957	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05067	1-63-4	1957	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05068	1-63-5	1957	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
05069	1-63-6	1957	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05070	1-64-1	1967	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05071	1-64-2	1967	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05072	1-70	1969	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05073	1-71	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05074	1-72	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05075	1-73	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05076	1-74	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05077	1-75	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05078	1-76	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05079	1-77	1963	P	Controlled Humidity Storage,	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
05080	1-82-1	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05081	1-82-2	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05082	1-82-3	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05083	1-82-4	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05084	1-82-5	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05085	1-82-6	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05086	1-82-7	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05087	1-82-8	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05088	1-82-9	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05090	1-82-11	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05091	1-82-12	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05092	1-82-13	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05093	1-82-14	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05094	1-82-15	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05095	1-82-16	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05097	1-82-18	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05098	1-82-19	1941	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
05099	1-82-20	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05100	1-82-21	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05101	1-82-22	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05102	1-82-51A	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05103	1-82-51B	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05104	1-82-52	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05105	1-82-53	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05106	1-82-54	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05107	1-82-55	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05108	1-82-56	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05109	1-82-57	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
05110	1-82-58	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05111	1-82-59	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05112	1-82-60	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05113	1-82-61	1948	P	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05114	1-82-62	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05115	1-82-63	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05116	1-82-64	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05118	1-82-67	1951	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05119	1-82-68	1951	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05120	1-82-69	1951	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05124	1-82-73	1957	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05125	1-82-74	1957	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05126	1-82-75	1957	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05127	1-82-75A	1966	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05128	1-82-75B	1967	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05129	1-82-75C	1968	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05130	1-100	1951	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
05131	1-100-1	1967	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05136	1-172	1965	P	Electronic and Communication Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05137	1-188-1	1941	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05138	1-207-1	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05139	1-207-2	1948	P	Installation Support Vehicle Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05140	23-53E	1957	P	Operations Supply Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05141			P	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05143	BG-1	1941	P	Non-Exchange Eating Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05144	BG-2	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05145	BG-3	1948	P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05146	BG-4	1948	P	Miscellaneous Operations Support	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Building					through ACHP Program Comments
05147	BG-12	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05148	1-03	1941	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05149	1-03A	1948	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05150	1-18	1964	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05153	FS-2	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05154	FS-3	1948	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05155	FS-4	1941	P	Ammunition Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05156	FS-5	1948	P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05157	FS-6	1948	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05159	FS-8	1949	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05160	FS-9	1949	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05161	FS-15	1986	P	Ammunition Production Facility	No	N/A	Unknown	N/A	
05163	FS-12	1964	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05164	23-39-1 (C-1)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05165	23-39-2 (C-2)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05166	23-39-3 (C-3)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05167	23-39-4 (C-4)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05168	23-39-5 (C-5)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05169	23-39-6 (C-6)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05170	23-39-7 (C-7)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05171	23-39-8 (C-8)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05172	23-39-9 (C-9)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05173	23-39-10 (C-10)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
05174	23-39-11 (C-11)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05175	23-39-12 (C-12)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05176	23-39-13 (C-13)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05177	23-39-14 (C-14)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05178	23-39-15 (C-15)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05179	23-39-16 (C-16)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05180	23-39-17 (C-17)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05181	23-39-18 (C-18)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05182	23-39-19 (C-19)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05183	23-39-20 (C-20)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05184	23-39-21 (C-21)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05185	23-39-22 (C-22)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05186	23-39-23 (C-23)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05187	23-39-24 (C-24)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05188	23-39-25 (C-25)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05189	23-39-26 (C-26)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05190	23-39-27 (C-27)	1941	P	Ammunition	No	N/A	Potentially	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					mitigated through ACHP Program Comments
05191	23-39-28 (C-28)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05192	23-39-29 (C-29)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05193	23-39-30 (C-30)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05194	23-39-31 (C-31)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05195	23-39-32 (C-32)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05196	23-39-33 (C-33)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05197	23-39-34 (C-34)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05198	23-39-35 (C-35)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05199	23-39-36 (C-36)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05200	23-39-37 (C-37)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05201	23-39-38 (C-38)	1941	P	Ammunition Storage,	No	N/A	Potentially	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Installation					through ACHP Program Comments
05203	23-39-40 (C-40)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05204	23-39-41 (C-41)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05205	23-39-42 (C-42)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05206	23-39-43 (C-43)	1941	P	Ammunition Storage, Installation	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05207	11-37-1 (L-1)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05208	11-37-2 (L-2)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05209	11-37-3 (L-3)	1941	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05210			P	Sidewalk and Walkway	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05211	11-82-2	1960	P	Sidewalk and Walkway	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05213	200-30	1941	P	Training Support Structure	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05214	200-131-2	1941	P	Covered Storage Building, Installation	No	N/A	N/A	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05215	1-36	1948	P	Hazardous Materials Storage, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05219	1-211	1960	P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05220	23-211	1958	P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05225	4A-03-1	1983	P	Hazardous Materials Storage, Depot	No	N/A	Unknown	N/A	
05226	4A-03-2	1983	P	Hazardous Materials Storage, Depot	No	N/A	Unknown	N/A	
05227	4A-04	1983	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	
05228	4A-07	1983	P	Operations Supply Building	No	N/A	Unknown	N/A	
05229			P	Installation Gas	No	N/A	Unknown	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					
05230			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05231			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05234	1-145	1941	P	Water Storage, Potable	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05236			P	Ammunition Storage, Installation	No	N/A	N/A	N/A	
05237			P	Ammunition Storage, Installation	No	N/A	N/A	N/A	
05238	4B-07-3	1984	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05239	4B-99-1	1984	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05240	4B-82-8	1984	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05249	20-193-1	1984	P	Operations Supply Building	No	N/A	Unknown	N/A	
05250	20-115-1	1984	P	Security Support Building	No	N/A	Unknown	N/A	
05254	1-115-6	1957	P	Security Support	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Building					mitigated through ACHP Program Comments
05256	23-115-2	1948	P	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05258			P	Miscellaneous Component of Other Facility	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05260	1-99-1	1952	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05261	1-99-2		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05262	1-99-3		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05263	1-99-4		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05264	1-99-5		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05265	1-99-6		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05266	1-99-7		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05267	1-99-8		P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05268			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
05269			S	Miscellaneous Utility Facility	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05270			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05280	1-115-8	1971	P	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05281	1-85-1	1972	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05282	FS-14	1972	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05284			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05286			P	Bulk Liquid Fuel Storage	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05287	1-65-1	1973	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05288	1-65-2	1973	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05289	1-82-75D	1973	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05290	1-115-7	1970	P	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05291	1-82-77	1973	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
05292	1-03-7	1973	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05293	1-03-5	1973	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05294	1-03-6	1973	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05295	1-148	1973	P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05296	1-100-2	1973	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05297	11-211	1974	P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05298	1-64-3	1974	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05299	1-64-4	1974	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05300	1-64-5	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05301	1-67-1	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05302	1-67-2	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
05303	1-67-3	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05304	1-78	1974	P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05305	1-80	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05306	1-19-1	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05307	1-19-2	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05308	1-19-3	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05309	1-19-4	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05310	1-19-5	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05311	1-19-6	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05312	1-19-7	1974	P	Ammunition, Explosive, and Toxic RDT&E Facility	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05313	1-66-1	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05314	1-66-2	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05315	1-63-7	1974	P	Ammunition Production Plant	No	N/A	Potentially	N/A	Eligible; mitigated through ACHP Program Comments
05316	3-137-3	1974	P	Locker Room	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05317	BG-13	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05318	1-82-2	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05319	1-82-65	1974	P	Ammunition	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					mitigated through ACHP Program Comments
05320	1-82-76	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05321	1-82-78	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05322	1-82-79	1974	P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
05323	2-207-1	1980	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05326	BG-134-1	1982	P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	
05327			P	Sewage Treatment	No	N/A	N/A	N/A	
05328	2-140-10	1981	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05329	BG-199-1	1982	P	Ammunition	No	N/A	Unknown	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Maintenance Shop, Depot					
05330	500-213-1	1978	P	Utility Building	No	N/A	Unknown	N/A	
05331	500-213-2	1978	P	Utility Building	No	N/A	Unknown	N/A	
05333	3-70-3	1978	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
05334	800-70-2	1978	P	Industrial Waste Treatment	No	N/A	Unknown	Unknown	
05335	3-163-1	1978	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
05336	800-163-1	1978	P	Industrial Waste Treatment	No	N/A	Unknown	Unknown	
05337	3-163-2	1978	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
05338	800-163-2	1978	P	Industrial Waste Treatment	No	N/A	Unknown	Unknown	
05340			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05341			P	Ammunition Storage, Installation	No	N/A	N/A	N/A	
05342			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05343			P	Ammunition Storage, Installation	No	N/A	N/A	N/A	
05344			P	Ammunition	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Installation					
05345			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05346			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05352	100-211	1989	S	Stand-By/Emergency Power	No	N/A	Unknown	N/A	
05353	200-211	1989	S	Stand-By/Emergency Power	No	N/A	Unknown	N/A	
05354			P	Vehicle Operating Fuel Storage	No	N/A	N/A	N/A	
05356	1-99-9	1989	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05357	1-99-10	1989	P	Ammunition Production Plant	No	N/A	Unknown	N/A	
05359			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05360			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05361			P	Miscellaneous Storage Tank and Basin	No	N/A	N/A	N/A	
05362	500-115-5	1990	P	Security Support Building	No	N/A	Unknown	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05363	2-115-4	1990	P	Security Support Building	No	N/A	Unknown	N/A	
05364	3-115-4	1990	P	Security Support Building	No	N/A	Unknown	N/A	
05366	6-198	1989	P	Industrial Waste Treatment	No	N/A	Unknown	N/A	
05373			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05374			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05375			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05378			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05379	1-198-3	1991	P	Utility Building	No	N/A	Unknown	N/A	
05380	1-198-4	1991	P	Locker Room	No	N/A	Unknown	N/A	
05382			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05383			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05384			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05385			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05386			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05387			P	Ammunition	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Production Plant					
05388			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05389			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05390			P	Hazardous Materials Storage, Installation	No	N/A	N/A	N/A	
05391			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05392			P	Heat Gas Distribution Line	No	N/A	N/A	N/A	
05393			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	
05394			P	POL Pipeline	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05395			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05396			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05401			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
05402			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05403			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05404			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05405			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05406			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05407			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
05408			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05409			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05410			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05411			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05412			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05413			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05414			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05415			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05416			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05417			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05418			P	Vehicle Maintenance Facility	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05419			P	Covered Storage Shed, Installation	No	N/A	N/A	N/A	
05420			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05421			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05422			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05423			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05424			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05425			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05426			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05427			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05428			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05429			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05430			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05431			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05432			P	Miscellaneous	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Utility Facility					
05433			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05434			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05435			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05436			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05437			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05438			P	Covered Storage Building, Depot	No	N/A	N/A	N/A	
05439			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05441			P	Utility Building	No	N/A	N/A	N/A	
05442			P	Utility Building	No	N/A	N/A	N/A	
05443			P	Hazardous Materials Storage, Installation	No	N/A	N/A	N/A	
05444			P	Communications Lines	No	N/A	N/A	N/A	
05445			S	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05446	PLANT SAFETY SIGN #1	c. 2000	S	Administrative Structure, Other	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Than Buildings					
05447	PLANT SAFETY SIGN #2	c. 2000	S	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05448	PLANT SAFETY SIGN #3	c. 2000	S	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05449	PLANT SAFETY SIGN #4	c. 2000	S	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05450	PLANT SAFETY SIGN #5	c. 2000	S	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05451	PLANT SAFETY SIGN #6	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05452	PLANT SAFETY SIGN #7	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05453	PLANT SAFETY SIGN #8	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05454	PLANT SAFETY SIGN #9	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05455	PLANT SAFETY SIGN #10	c. 2000	P	Administrative Structure, Other	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Than Buildings					
05456	PLANT SAFETY SIGN #11	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05457	PLANT SAFETY SIGN #12	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05458	PLANT SAFETY SIGN #13	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05459	PLANT SAFETY SIGN #14	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05460	PLANT SAFETY SIGN #15	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05461	PLANT SAFETY SIGN #16	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05462	PLANT SAFETY SIGN #17	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05463	PLANT SAFETY SIGN #18	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05464	PLANT SAFETY SIGN #19	c. 2000	P	Administrative Structure, Other	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Than Buildings					
05465	PLANT SAFETY SIGN #20	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05466	PLANT SAFETY SIGN #21	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05467	PLANT SAFETY SIGN #22	c. 2000	P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05471			P	Miscellaneous Paved Area	No	N/A	N/A	N/A	
05472			S	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
05473			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05474			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05475			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05476			P	Installation Gas Distribution Line	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05477			P	Utility Building	No	N/A	N/A	N/A	
05478			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05479			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05480			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05481			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05482			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05483			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05484			P	Railroad Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05486			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05487			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05488			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
05489			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05490			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05491			P	Vehicle Bridge	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
05493			P	Weapons RDT&E Facility	No	N/A	N/A	N/A	
05494			P	Loading Platform/Ramp	No	N/A	N/A	N/A	
05495			P	Ammunition Storage, Depot and Arsenal	No	N/A	N/A	N/A	
05496			P	Ammunition Storage, Depot and Arsenal	No	N/A	N/A	N/A	
05497			P	Ammunition	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Storage, Depot and Arsenal					
05498			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05499			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05500			P	Levees and Dikes for Grounds Drainage	No	N/A	N/A	N/A	
05501	POND #40	1990	P	Reservoir, Water	No	N/A	N/A	N/A	
05502	DAM	1990	P	Grounds Drainage Dams	No	N/A	N/A	N/A	
05503	STUMP LAKE	1941	P	Reservoir, Water	No	N/A	N/A	N/A	
05504			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05506			P	Heat Source	No	N/A	N/A	N/A	
05507			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05508			P	Security Support Building	No	N/A	N/A	N/A	
05509			P	Overhead Cover	No	N/A	N/A	N/A	
05510			P	Covered Storage Building, Installation	No	N/A	N/A	N/A	
05511			P	Ammunition Maintenance Shop, Depot	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05512			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05513			P	Miscellaneous Utility Facility	No	N/A	N/A	N/A	
05516			P	Utility Building	No	N/A	N/A	N/A	
05518			P	Water Source, Non-Potable	No	N/A	N/A	N/A	
05519			P	Water Source, Non-Potable	No	N/A	N/A	N/A	
05520			P	Water Source, Non-Potable	No	N/A	N/A	N/A	
05521			P	Utility Building	No	N/A	N/A	N/A	
05522			P	Monument and Memorial	No	N/A	N/A	N/A	
05528				Vehicle Operating Fuel Storage	No	N/A	N/A	N/A	
05530			P	Open Storage, Installation	No	N/A	N/A	N/A	
05531	OIL FILL BREAKERS AND LESS THAN 3KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05532	3KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05533	5KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05534	5.5KVA	2009	P	Electrical Power	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
	TRANSFORMERS			Transformers					
05535	7.5KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05536	10KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05537	15KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05538	20KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05539	25KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05540	30KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05541	37.5KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05542	40KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05543	45KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05544	50KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05545	75KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05546	100KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05547	112KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05548	112.5KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05549	150KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05550	225KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05551	250KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05552	300KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05553	333KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05554	500KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05555	750KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05556	1000KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05557	2000KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05558	7500KVA TRANSFORMERS	2009	P	Electrical Power Transformers	No	N/A	N/A	N/A	
05559	UNDERGROUND ELECTRICAL	2009	P	Electrical Power Distribution Line, Underground	No	N/A	N/A	N/A	
05560	BRIDGE #H-29	c. 1935	P	Vehicle Bridge	No	N/A	N/A	N/A	
05561	ADMIN FENCING	2002	P	Boundary Fence	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				and Wall					
05562	BG FENCING	2009	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05563	DEMO AREA FENCING	2009	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05564	LINE 1 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05565	LINE 2 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05566	LINE 3 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05567	LINE 3A FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05568	LINE 4A FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05569	LINE 4B FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05570	LINE 5A FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05571	LINE 5B FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05572	LINE 6 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05573	LINE 7 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05574	LINE 8 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05575	LINE 800 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05576	LINE 9 FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05577	TEST FIRE FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05578	YARD A FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05579	YARD C FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05580	YARD E FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05581	YARD F FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05582	YARD G FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05583	YARD H FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05584	YARD J FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05585	YARD K FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05586	YARD L FENCING	c. 1941	P	Boundary Fence and Wall	No	N/A	N/A	N/A	
05589			P	Installation Gas Production Plant	No	N/A	N/A	N/A	
05590	SHILOH	c. 1855	P	Cemetery	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05591	SPRING CREEK	c. 1819	P	Cemetery	No	N/A	N/A	N/A	
05592	SWEDESTOWN		P	Cemetery	No	N/A	N/A	N/A	
05593	MORMON	c. 1838	P	Cemetery	No	N/A	N/A	N/A	
05594	ELLIOT	1841	P	Cemetery	No	N/A	N/A	N/A	
05595			P	Open Storage, Installation	No	N/A	N/A	N/A	
05596	ADMIN PARKING LOT	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05597	GHQ PARKING LOT	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05598	DUNNAGE PARKING LOT	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05599	PARKING AREA	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05600	4A AND 4B PARKING LOTS	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05601	GARAGE PARKING LOT	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05602	MECHANICAL PARKING LOT	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05603	5A AND 5B PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05604	B YARD PARKING LOT	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05605	BURNING GROUND PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
05606	C YARD PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05607	D YARD PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05608	E YARD PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05609	TEST FIRE PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05610	YARD L PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05611	LINE 2 PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05612	LINE 3 PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05613	LINE 3A PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05614	LINE 6 PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05615	LINE 9 PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05616	MEMORIAL PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05617	POWERHOUSE PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05618	LINE 800 PARKING	2010	P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
05626			S	Administrative	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Structure, Other Than Buildings					
05627			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05628			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05629			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05630			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05631			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05632			P	Ammunition Production Plant	No	N/A	N/A	N/A	
05635			P	Electronic and Communication RDT&E Facility	No	N/A	N/A	N/A	
05637			P	Covered Storage Building, Installation	No	N/A	N/A	N/A	
05641			P	Monument and Memorial	No	N/A	N/A	N/A	
05814			P	Utility Building	No	N/A	N/A	N/A	
0947A			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
0A197			P	Locker Room	No	N/A	Unknown	N/A	
0A948			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
0A950			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
0A951			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
0A952			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
0A953			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
0A954			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
0A958			P	Sidewalk and Walkway	No	N/A		N/A	
0B952			P	Ammunition Production Plant	No	N/A	Unknown	N/A	
1058A			T	Security Support Building	No	N/A	Unknown	N/A	
12590			P	Miscellaneous Storage Tank and Basin	No	N/A	N/A	N/A	
A0029			P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
A0101			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0188			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0190			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0203			P	Locker Room	No	N/A	Unknown	N/A	
A0205			P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0218			P	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0231			S	Security Support	No	N/A	Unknown	N/A	Eligible;

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
				Building					mitigated through ACHP Program Comments
A0260			P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0294			P	Operations Supply Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0464			P	Locker Room	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0651			P	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0654			P	Ammunition Storage, Depot and Arsenal	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Comments
A0668			T	Covered Storage Building, Installation	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0847			P	Utility Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A0919			P	Water Treatment Facility	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A1018			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A5030			P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
A5034			P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									through ACHP Program Comments
A5072			P	Industrial Waste Treatment	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
AFRCO			P	Reserve Training Facility	No	N/A	N/A	N/A	
B0231			P	Security Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
B0294			P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
B0847			P	Other Operating Fuel Storage	No	N/A	N/A	N/A	Eligible; mitigated through ACHP Program Comments
B1038			P	Ammunition Maintenance Shop, Depot	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
B5030			P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
BASIO			P	Miscellaneous Storage Tank and Basin	No	N/A	N/A	N/A	
C0196			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
C0218			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
C0231			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
C0847			P	Miscellaneous Operations Support Building	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
									Program Comments
C5030			P	Facility Engineer Maintenance Shop	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
D0196			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
F0196			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
FENC1			P	Boundary Fence and Wall	No	N/A	N/A	N/A	
FENC2			P	Boundary Fence and Wall	No	N/A	N/A	N/A	
FENC3			P	Boundary Fence and Wall	No	N/A	N/A	N/A	
FENC4			P	Boundary Fence and Wall	No	N/A	N/A	N/A	
FENC5			P	Boundary Fence and Wall	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
FENCE			P	Boundary Fence and Wall	No	N/A	N/A	N/A	
FLAGP			P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
FMS01			P	Vehicle Maintenance Shop, National Guard	No	N/A	N/A	N/A	
FSIGN			P	Administrative Structure, Other Than Buildings	No	N/A	N/A	N/A	
G0196			P	Ammunition Production Plant	No	N/A	Unknown	N/A	Eligible; mitigated through ACHP Program Comments
GN001			P	Stand-By/Emergency Power	No	N/A	N/A	N/A	
MILP1			P	Vehicle Staging Area, Surfaced	No	N/A	N/A	N/A	
MILP2			P	Vehicle Staging Area, Surfaced	No	N/A	N/A	N/A	
MILP3			P	Vehicle Staging Area, Surfaced	No	N/A	N/A	N/A	
MILP4			P	Vehicle Staging Area, Surfaced	No	N/A	N/A	N/A	

IOWA ARMY AMMUNITION PLANT BUILDINGS AND STRUCTURES									
Facility Number	IAAAP Building Number	Build Date	Type	Use	MacDonald and Mack Partnership (1984)	Mason and Hangar-Silas Mason Co., Inc. (1996)	Waite (1996 CRMP)	Griffitts (2005)	Comments
MILPK			P	Vehicle Staging Area, Surfaced	No	N/A	N/A	N/A	
MONIT			P	Monument and Memorial	No	N/A	N/A	N/A	
POVP1			P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
POVPK			P	Vehicle Parking, Surfaced	No	N/A	N/A	N/A	
RAMP1			P	Loading Platform/Ramp	No	N/A	N/A	N/A	
RAMP2			P	Loading Platform/Ramp	No	N/A	N/A	N/A	
RAMP3			P	Loading Platform/Ramp	No	N/A	N/A	N/A	
ROAD1			P	Road, Surfaced	No	N/A	N/A	N/A	
ROAD2			P	Road, Surfaced	No	N/A	N/A	N/A	
ROAD3			P	Road, Surfaced	No	N/A	N/A	N/A	
TANK1			P	Vehicle Operating Fuel Storage	No	N/A	N/A	N/A	
TF001			P	Electrical Power Transformers	No	N/A	N/A	N/A	
TF002			P	Electrical Power Transformers	No	N/A	N/A	N/A	
TOWER			P	Miscellaneous Operations Support Facility	No	N/A	N/A	N/A	

APPENDIX E: SUMMARY OF CULTURAL RESOURCES SURVEYS

FINAL

ARCHITECTURAL SURVEY OF LINES 5A, 5B, 6, 7, 8, 800, AND 9 AND NATIONAL REGISTER OF HISTORIC PLACES EVALUATION OF LINE 7

IOWA ARMY AMMUNITION PLANT, MIDDLETOWN, DES MOINES COUNTY, IOWA

Prepared for:

THE ARMY CORPS OF ENGINEERS
HUNTSVILLE, ALABAMA

Prepared By:

PARSONS
LIVERPOOL, NEW YORK

March 2005

FINAL REPORT

ARCHITECTURAL SURVEY OF LINES 5A,5B, 6, 7, 8, 800, AND 9 AND NATIONAL REGISTER OF HISTORIC PLACES EVALUATION OF LINE 7 IOWA ARMY AMMUNITION PLANT, MIDDLETOWN, DES MOINES COUNTY, IOWA

Prepared For:

PREPARED FOR THE U.S. ARMY CORPS OF ENGINEERS HUNTSVILLE, ALABAMA

Contract No.: DABJ15-03-D-0042
Delivery Order No.: 0025
SHPO Report No. 29021

Prepared by:
Eric F. Griffitts

PARSONS
Liverpool, New York

March 2005

ABSTRACT

The U.S. Army Corps of Engineers (USACE) has implemented a program to assess the readiness of individual facilities in regards to buildings scheduled for demolition. The Iowa Army Ammunition Plant (IAAAP), originally known as the Iowa Ordnance Plant (IOP), is among the facilities part of the USACE program. Seven production lines (5A, 5B, 6, 7, 8, 800, and 9), none of which are currently in use, have been deemed demolition possibilities.

This report was prepared in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended and Army Regulations 200-4. The Iowa Army Ammunition Plant (IAAAP) is a Government Owned/Contractor Operated (GOCO) munitions production facility located in Middletown, Iowa. The IAAAP is required per the NHPA and Army Regulation 200-4 to carry out a program for the management of historic properties on the installation that are listed on or determined eligible for the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal entities to take into account and mitigate impacts to resources that have been listed or determined eligible for NRHP listing on projects requiring federal funding or licensing.

The purpose of this study involved an architectural survey of production lines 5A, 5B, 6, 7, 8, 800, and 9. Because of its priority status for demolition consideration, a determination of eligibility was completed for Line 7 while recommendations for further work was made for the other lines that appeared to have potential to meet National Register of Historic Places (NRHP) criteria. Line 7 was recommended as not eligible for listing on the NRHP on account of lack of integrity because of changes to its World War II appearance.

This report was prepared by Parsons, Inc. (Parsons), for the U.S. Army Corps of Engineers (USACE), Huntsville, Alabama under Contract No. DABJ15-03-D-0042, Delivery Order No. 0025

FINAL

PHASE I
CULTURAL RESOURCES SURVEY REPORT AND ARCHAEOLOGICAL INVENTORY FOR THE IOWA ARMY AMMUNITION PLANT (IAAAP)

MIDDLETOWN, IOWA

JULY 25, 2011

prepared by:
Science Applications International Corporation

1.0 INTRODUCTION

This report presents results of the Phase I cultural resources survey and archaeological inventory of 14.86 hectacres (ha) by Science Applications International Corporation (SAIC) and Ecosystem Management & Associates, Inc. (EM&A), conducted at the Iowa Army Ammunition Plant (IAAAP) in Des Moines County in southeastern Iowa (Figure 1). The purpose of these investigations was to assist the United States (U.S.) Army with the management of cultural resources as mandated by Sections 106 and 110 of the *National Historic Preservation Act of 1966*, as amended through 2000 (16 U.S.C. § 470 et seq.; P.L. 89–665; 80 Stat. 915), and U.S. Army regulations 200-4 and DOD14715.16 regarding prehistoric or historic sites of cultural significance.

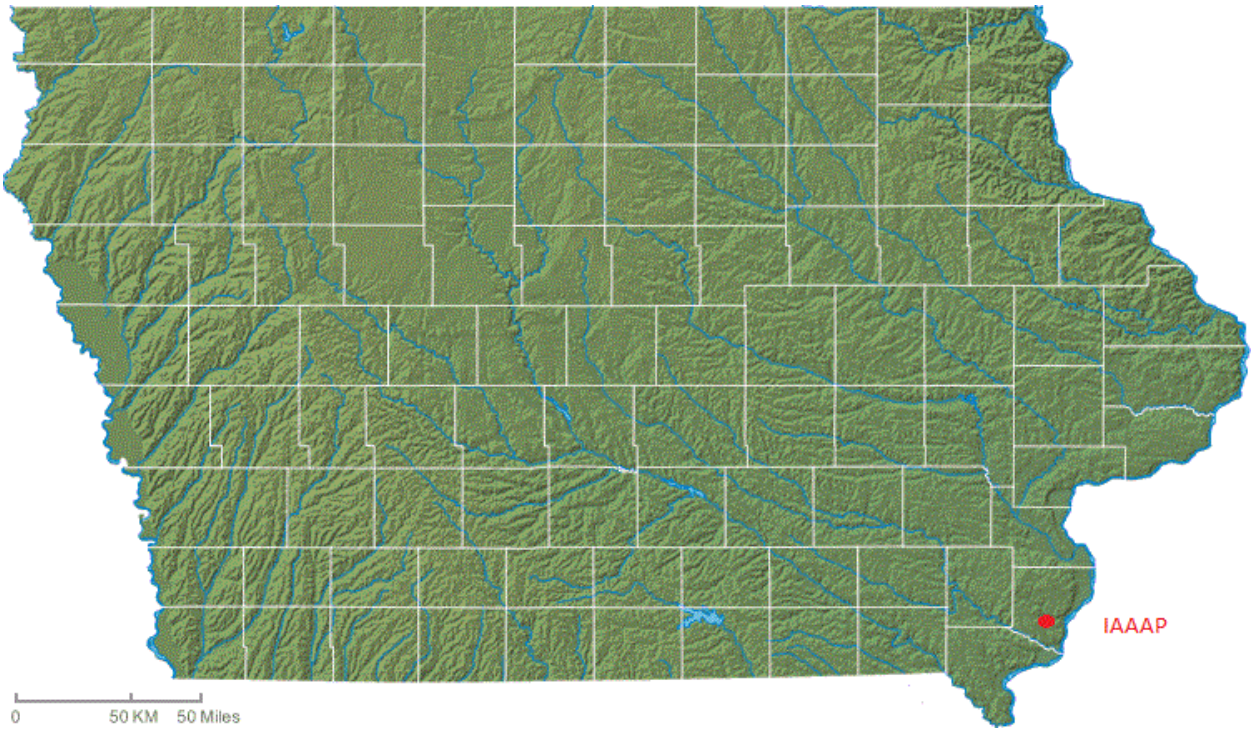

Figure 1. Location of IAAAP in Southeastern Iowa

IAAAP occupies 76.93 square kilometers (km) (19,009.8 acres [ac]) with 767 buildings, 230.0 km (143.0 miles [mi]) of roads, and 164.0 km (102.0 mi) of railroads within the townships of Union, Danville, Flint River, and the southern part of Middletown, Iowa. IAAAP is a production facility operating as part of the U.S. Army Joint Munitions Command currently producing ammunition for U.S. warfighters. When construction of the IAAAP was completed in 1942, it was known as the Iowa Ordinance Plant (IOP). In 1947, the IOP was selected as the first production facility for manufacturing high explosives components for weapons. From 1947 to 1975, portions of the IAAAP facility were under Atomic Energy Commission (AEC) control for the research, development, and production of materials and components as part of the early U.S. atomic program. Roughly one-third of the IAAAP land area is occupied by production facilities; the remaining two-thirds is divided evenly between leased agricultural lands and wooded lots.

The Phase I cultural resources survey and archaeological inventory consisted of pedestrian survey and excavation of 325 shovel tests covering approximately 14.86 ha (36.72 ac) on seven selected, contiguous tracts within the IAAAP (Areas A through G) (Figure 2). The Area of Potential Effect (APE) consisted of the land proposed for the placement of a natural gas pipeline

and a construction buffer of 100 feet (ft) to 400 ft. Buffer areas and width were predetermined by the client (Figure 2). The proposed natural gas pipeline right of way (ROW) would enter the facility near the intersection of Highway 34 and Gate 3 at the existing pipeline terminal. From there, the pipeline would extend south and west through the central portion of the facility until it reaches the IAAAP power plant.

The Phase I survey resulted in one previously recorded archaeological site (13DM604) within Area A, the identification and recording of one archaeological site (13DM1329) and one Isolated Find (13DM1330) within Area G (Figures 3, 4, and 5). Due to the lack of integrity and the lack of temporally diagnostic artifacts, these sites retain little research value, and none are considered eligible for inclusion in the National Register of Historic Places (NRHP). Additionally, three Find Spots were noted, all within Area G; each consisted of a single non-diagnostic tertiary chert flake (see Section 5).

Project personnel for this project included Brandi M. Carrier Jones, Principal Investigator; and Quentina Borgic, Project Archaeologist; additional document sections were prepared by Brian W. Tutterow (SAIC Environmental Scientist), and Rick Whitney (SAIC Environmental Scientist/Professional Geologist). Fieldwork took place between May 16, 2011, and May 27, 2011.

The following sections of this report present the project area's natural setting (Section 2) and the cultural background (Section 3) of the project area, the methods used to carry out the project (Section 4), and the results of the Phase I investigations (Section 5). Management recommendations derived from the cultural resources investigations are presented in Section 6.

APPENDIX F: SHPO CORRESPONDENCE AND CONCURRENCE LETTERS

May 28, 2002

In reply refer to:
R&C#: 970729066

Yolanda C. Dennis-Lowman
Lt. Colonel, US ARMY
Commanding Officer
Iowa Army Ammunition Plant
17571 State Highway 79
Middletown, Iowa 52638-5000

RE: DOD – DES MOINES COUNTY – IOWA ARMY AMMUNITION PLANT – DACA01-96-D-0011 – TETRA TECH, INC. - A LIGHT PHASE II INVESTIGATION OF 27 ARCHAEOLOGICAL SITES AT THE IOWA ARMY AMMUNITION PLANT

Dear Lt. Colonel Dennis-Lowman,

We have received and reviewed the above referenced report prepared by Tetra Tech, Inc. We sincerely apologize for our lengthy delay in response. Overall, we think that this report was well written and organized. We particularly appreciated the excellent maps and graphics within the report. We commend the consultants for a job well done.

We would like to offer **comments** and **recommendations** on a number of items within the report. Our comments are provided below.

1. 13DM376. We noted that 2 of the positive shovel tests were located outside of the defined site boundary. Also, we noted that the number of positive shovel tests mentioned in the text does not correspond with the number of positive shovel tests within the site boundary on Figure 25. This information should be clarified within the report.
2. 13DM536. We noted that the number of positive shovel tests mentioned in the text does not correspond with the number of positive shovel tests within the site boundary on Figure 21. This information should be clarified within the report.
3. 13DM588. There seems to be a problem with the 13DM588 site boundary on Figure 77. Areas B and C are not included with the site boundary. Also, there were at least seven positive shovel tests located outside of the demarcated site boundary. This information should be clarified within the report.
4. 13DM589. 6.25.4 The number of STPs does not match within the first paragraph of the field investigation. The first sentence states 92. The following sentences state 83 and 8 for a total of 91. Which is correct? 6.25.5 The historic component is not addressed in the summary recommendations for this site.
5. 13DM419. There is no site boundary provided on Figure 44. This should be included on the figure. On Figure 45, we noted that the surface find in Sections C/Q was not included within the site boundary. This should be included within the site boundary. This is the same case on Figure 46 with Section I. There are discrepancies in the number of shovel tests conducted and artifacts recovered between the Field Investigation section (pages 120-123) and the Summary, Conclusions, and recommendations Section (p.130). Which is correct?

6. 13DM426. What are we looking at in Plate 50? Are there specific historic features located in this area?
7. 13DM420. We noted that a number of positive shovel tests are not located within the site boundary on Figure 48. This information should be clarified within the report.
8. 13DM430. There is no site boundary provided on Figure 53. This should be included on the figure.
9. 13DM380. We noted that a number of positive shovel tests are not located within the site boundary on Figure 31. This information should be clarified within the report.
10. 13DM303. We noted that a number of positive shovel tests are not located within the site boundary on Figures 15, 16, and 17. This information should be clarified within the report.
11. 13DM370. There is no site boundary provided on Figure 23. This should be included on the figure.
12. 13DM411. There is no site boundary provided on Figure 23. This should be included on the figure. Also, there is one positive shovel test located outside of the site boundary on Figures 37. The site boundary should include the location of that positive shovel test. This should be clarified within the report.
13. 13DM415. There is no site boundary provided on Figure 23. This should be included on the figure.
14. 13DM474. There is no site boundary provided on Figure 61 for Section A and on Figure 62 for Section B. This should be included on the figure.
15. 13DM517. There is no site boundary provided on Figure 66. This should be included on the figure.
16. 13DM519. There is no site boundary provided on Figure 68. This should be included on the figure.
17. 13DM574. We noted that a number of positive shovel tests are not located within the site boundary on Figure 71. Also, there is no site boundary provided on Figure 72 for Sections C, D, and G and on Figure 74 for Sections F and H. This should be included on the figure. We noted that a number of positive shovel tests are not located within the site boundary on Figure 73 for Section E. This information should be clarified within the report.

We concur with the consultant's recommendations that the following sites are not eligible for listing on the National Register of Historic Places:

13DM355, 13DM356, 13DM370, 13DM377, 13DM380, 13DM396, 13DM411, 13DM415, 13DM417, 13DM430, 13DM449, 13DM472, 13DM474, 13DM477, 13DM517, 13DM519, 13DM588, 13DM589, 13DM602, 13DM603, 13DM376 (prehistoric component), 13DM303 (Section A), 13DM419 (prehistoric component), 13DM426 (prehistoric component), 13DM574 (Sections B, C, D, F and G)

We concur with the consultant's recommendations that site 13DM303 (Section D), site 13DM376 (Historic Component), and site 13DM574 (Section A) is eligible for listing on the National Register of Historic Places under criterion D. We also concur that the historic component at site 13DM426 is eligible for listing under criteria B and D.

We also concur with the consultant's recommendations that the following sites are potentially eligible for listing on the National Register of Historic Places at least under criterion D:

13DM303 (Sections B and C), 13DM420, 13DM473, 13DM574 (Sections E and H), 13DM419 (historic component)

We have made these **comments** and **recommendations** according to our responsibility defined by Federal law pertaining to the Section 106 process. The responsible federal agency does not have to follow our **comments** and **recommendations** to comply with the Section 106 process. It also remains the your agency's decision on how you will proceed from this point for this project.

Should you have any questions please contact me at the number below.

Sincerely,

Douglas W. Jones, Archaeologist
Community Programs Bureau
(515) 281-4358

cc: Joe J. Haffner, Management Agronomist, IAAAP
Jay M. Rubinoff, Wildlife Biologist, Real Property and Natural Resources Division, Army

STATE HISTORICAL SOCIETY of IOWA

A Division of the Iowa Department of Cultural Affairs

March 26, 2009

In reply refer to:
R&C#: 041229080

Benjamin M. Nutt, Lieutenant Colonel
& Commanding Officer
Dept. of the Army
Iowa Army Ammunition Plant
Highway 79
Middletown, Iowa 52638-5000

RE: DOD/ARMY – DES MOINES COUNTY – IOWA ARMY AMMUNTION PLANT (IAAAP) – PROPOSED INSTALLATION OF THE SOUTHERN PERIMETER SECURITY FENCE AND ASSOCIATED CLEAR ZONES – GLARC ROI 554 – ARCHAEOLOGICAL AND GEOMORPHOLOGICAL PHASE I INVESTIGATIONS – PHASE I ARCHAEOLOGICAL INVESTIGATIONS OF THE WEST PERIMETER FENCE ALIGNMENTS - **REVISED**

Dear Lieutenant Colonel Nutt,

Thank you for providing our office with the report regarding the above referenced proposed project which will be an undertaking that will need to comply with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act

We understand that two existing archaeological sites (13DM611 and 13DM612) and five new archaeological sites (13DM1105, 13DM1106, 13DM1107, 13DM1108, 13DM1109) were identified within the Area of Potential Effect for this undertaking and were investigated during the survey. During our review, we noted a number of items that we believe should be clarified in the report with additional information

1. Per our on-site meeting on March 25, 2009; we understand that this report will only be for the West Perimeter Security Fence and that the title of the report will change to reflect the current plans.

2. Page 38, Figure 11. Please remove the site locations outside of the IAAAP for this map. The sites that are immediately adjacent to the boundaries can be left on the figure.

3. Page 39, second paragraph, fourth sentence. There is a typographical error. "Site 11DM612" should be "Site 13DM612."

4. Page 43, third paragraph, third sentence. The consultant states in this sentence that "refuse scatters" and "open habitations" are "archaeological euphemisms" that indicate site function is unknown. We disagree with this statement. These terms do indicate what the site function was. They also indicate that there is no information available as to who may have been responsible for the activities on those sites or when the activities on the site occurred. The artifacts identified at

the sites clearly indicate a site function, granted the interpretation of those activities is entirely dependent on what type of a representative sample of artifacts were observed at the site.

5. Page 43, fourth paragraph, second sentence. We disagree with your conclusion that the area was a lightly utilized landscape that was occupied repeatedly for brief periods. We question how you arrived at that conclusion "through the numbers." As archaeologists, many times we have different interpretations about what we are seeing at the sites and in this case, within the landscape of the IAAAP. Within Iowa, this area represents one of the densest concentrations of prehistoric archaeological sites. This area has received more archaeological survey because of the IAAAP (approximately 10% of the entire area of Des Moines County has been intensively surveyed for archaeological sites), but as a whole, only 2.5% of the state of Iowa has been intensively surveyed for archaeological sites. You also need to consider how much of the IAAAP has not been surveyed for archaeological sites which would include most of the areas within the woods. The historic activities of the plant must also be considered as a variable on how they have affected what we are now seeing as the archaeological record.

   In our opinion, this area was heavily utilized. We come to this conclusion by not only looking at what we know about the area, but also the fact that Burlington chert shows up through out the state and other states in the lithic debitage and tool assemblages during most of the identified cultural periods, sometimes in higher percentages than the locally available chert resources. While it is difficult to say whether this area was heavily occupied during the different cultural periods based on the available information, it is an area that was heavily utilized throughout time because of the available Burlington Chert deposits but also for other reasons such as available food resources.

   We are not necessarily asking the consultant to change what is currently in the report regarding this matter, but we are officially stating that we disagree with your consultant's interpretation about this topic.

6. Page 51. There have been no Middle Mississippian cultural manifestations ever documented within Iowa to date. The Oneota tradition is the only documented Upper Mississippian cultural tradition within Iowa. We recommend that the "Mississippian Period (A.D. 1100-1700)" be changed to the "Late Prehistoric Period (A.D. 1100-1700)."

7. Page 52, fourth paragraph, seventh sentence. Actually, the fort (Fort Des Moines #1) was not located at the mouth of the Des Moines River. It was located in the town of Montrose in Lee County along the Mississippi River.

8. Page 52, third paragraph and Page 53, second paragraph. There are several references to Leininger and Bidenfeld 2002 which are incorrect as they should be Leininger and Bienenfeld 2002.

9. Page 53, second paragraph, third sentence. This sentence is incorrect as written. We suggest changing to read as follows: "~~The first, or pioneer, stage of~~ *A*gricultural development in southeast Iowa ***during the initial Euroamerican settlement*** was characterized by the cultivation of Indian Corn, ***wheat***, potatoes, and the raising of livestock."

10. West Test Area Discussions and Site Discussions throughout report. We note that the discussions of the soils encountered at the sites and at the Test Areas were presented as averages and that completely described soil profiles were not provided in the report. In accordance with the **Guidelines for Archaeological Investigations in Iowa** (1999), we recommend that at least a representative sample of actual soil profiles from the conducted shovel tests on the different landforms within the project area be provided in the report. Also, at least one representative actual soil profile from the conducted shovel tests at the identified sites should be included within the site discussions.

11. Page 78, Figure 24, Sheet 2 of 2. The site boundaries for 13DM612 (and 13DM1109 if used for the well location) should be included on this figure.

12. Page 81, Well Feature. This feature should be recorded as an archaeological site since it is no longer in use. Because the association of this feature with a historic farmstead can not be specifically determined, we recommend that this feature be recorded as a separate archaeological site.

13. Pages 82 and 86, Site 13DM1109. Per consultation with the State Archaeologist today, we are aware that the Office of the State Archaeologist generally discourages the recordation of one archaeological site within another. We understand that this site was designated because it was interpreted as a prehistoric artifact isolated find. We understand that site 13DM612 is a former historic farmstead site. We note that site 13DM612 has not been systematically investigated and the National Register eligibility of this site has not been evaluated. It is our opinion, based on previous archaeological investigations at the IAAAP, that it is very likely that future investigations at 13DM612 would more than likely identify additional prehistoric artifacts at this site. In this scenario, the site designated as 13DM1109 would probably not be an isolated find but probably associated with a prehistoric component at 13DM612. We recommend that the prehistoric artifact designated as site 13DM1109 in the report should be considered to be part of site 13DM612. We recommend completing a site form for 13DM612 indicating that a prehistoric artifact has been recovered at the site. The West 5 (13DM1109) section should change to the Site 13DM612 section. I note that there were additional subsurface tests conducted within the site boundaries of 13DM612 and this information should be included in this discussion. Also, you need to address the potential National Register eligibility of site 13DM612. We understand that the portion of the site does not retain any integrity, but the remaining portion of the site outside of the current Area of Potential effect has not been evaluated. Therefore, the overall recommendation is that the site remains unevaluated. Site 13DM612 should be added into Table 10 with the appropriate information.

We also recommend that instead of retiring site 13DM1109, we see no reason why you can't use this site number for the well feature discussed in our last comment.

14 Figure 26, pages 83-85. This figure is a bit awkward in that the partial site boundaries for 13DM611 are on two different sheets and the entire site boundaries are not presented. We recommend that this figure be revised so that the entire site boundaries for 13DM611 are on the figure. If it is possible to include the entire site boundary on one sheet, we believe that would be much easier to interpret and use than how it is currently presented.

We concur with the consultant's recommendations that sites 13DM611, 13DM1105, 13DM1106, and 13DM1108 are not eligible for listing on the National Register of Historic Places and that no further work is recommended for these sites. If the well site will be recorded as 13DM1109, we would concur that this has not been evaluated for its potential eligibility for listing on the National Register. Since this site is located outside of the Area of Potential Effect for the current undertaking, it appears that this site will not be affected by the proposed undertaking. If this site will be affected by any proposed future activities, it should be evaluated for its potential eligibility for listing on the National Register.

We also would agree with the consultant's recommendations that the investigated portion of site 13DM612 (including the prehistoric artifact) does not retain any integrity. The remaining portion of the site outside of the current Area of Potential effect has not been evaluated. We also agree with the consultant's recommendations that site 13DM1107 should be regarded as potentially eligible for listing on the National Register and further work should be conducted at this site if it will be affected. Therefore, we could agree to treat these sites as if they are eligible for listing on the National Register of Historic Places for this undertaking. Our office could concur with a No Adverse Effect for these sites on the conditions that:

- A temporary fence should be installed along the boundary of sites 13DM1107 and 13DM612 that either retain integrity and/or have not been evaluated for their potential eligibility for listing on the National Register for the remainder of the construction activities. No construction activities will occur within the fenced-off site boundaries. The placement of the fence should be supervised by the archaeological consultant to accurately place the fence for avoidance.

Per our March 25, 2009 on-site meeting at these sites, our office agrees that fences may not be needed to accomplish the intended purpose of the fence. We would agree to using metal posts and using flagging tape or pin flags on the posts to mark out the boundaries. We understand that the position of this boundary will be within the surveyed area beyond the area to be cleared for the undertaking. The demarcation of this area can either be supervised by the archaeological consultant or by Joe Haffner.

We have made these **comments** and **recommendations** according to our responsibility defined by Federal law pertaining to the Section 106 process. Your agency does not have to follow our **comments** and **recommendations** to comply with the Section 106 process. It remains your agency's decision on whether or not to provide additional information to our office. It also remains your agency's decision on how you will proceed from this point forward. **If you choose not to follow our recommendations, please consult 36 CFR Part 800.4(d)(1)(ii) or 36 CFR Part 800.5(c)(2)(i), as appropriate, for guidance on how to conclude the Section 106 consultation.**

Should you have any questions please contact me at the number below. Please reference the Review and Compliance Number provided above in all future submitted correspondence to our office for this project. We look forward to further consulting with you on this undertaking.

Sincerely,

Douglas W. Jones

Douglas W. Jones, Archaeologist and Review and Compliance Program Manager
State Historic Preservation Office
State Historical Society of Iowa
(515) 281-4358

cc: Joe Haffner, Cultural Resources Manager, Iowa Army Ammunition Plant
Barbara Mitchell, Deputy State Historic Preservation Officer
Daniel Higginbottom, Archaeologist, State Historical Society of Iowa
Stephen Hinks, Principal Investigator, Michael Baker, Jr., Inc.
John Doershsuk, State Archaeologist, Office of the State Archaeologist
Colleen Eck, Site Records Manager, Office of the State Archaeologist

STATE HISTORICAL SOCIETY of IOWA

A Division of the Iowa Department of Cultural Affairs

June 21, 2010

In reply refer to:
R&C#: 100629121
Assoc. R&C#: 990829023

Tommie Hewitt, Jr., Lieutenant Colonel, Commanding
Installation Management Division
Iowa Army Ammunition Plant
17571 State Highway 79
Middletown, Iowa 52638-5000

RE: DOD/ARMY - DES MOINES COUNTY - IOWA ARMY AMMUNITION PLANT – REVIEW OF 2010 AGRICULTURAL AND GRAZING OUTLEASE TRACT MANAGEMENT PLANS – TRACT NUMBERS #4, 11, 12, 23, 24, 27, 30, 33, 40, 43, 44, 111, AND 124

Dear Lieutenant Colonel Hewitt,

Thank you for providing information to our office concerning the above referenced proposed project. We understand that this project will be a federal undertaking for the United States Department of the Army (ARMY) and will need to comply with Section 106 of the National Historic Preservation Act and the National Environmental Policy Act.

Based on the information you provided, we concur that the proposed tract arrangements will not affect the previously recorded archaeological sites identified during the Phase I archaeological survey (R&C#: 881129084) that are located in these tracts. A number of these sites, or portions of these sites, have been further evaluated as eligible for listing on the National Register of Historic Places based on Phase II archaeological testing. Based on this information, we concur with your No Adverse Effect determination for those sites because the tilling practices are consistent with limiting any effects to 7 inches below the current surface within the currently existing plowzones.

Be advised that the successful conclusion of consultation with the SHPO in no way abrogates the agency's responsibility to consult with other parties that may have an interest in properties that may be affected by this project. Nor does it subjugate the sovereign status of federally recognized American Indian Tribes in the Section 106 consultation process.

If the proposed agricultural activities uncover an item(s) that might be of archeological, historical or architectural interest, or if important new archeological, historical or architectural data should be encountered in the project APE, the contractor should make reasonable efforts to avoid further impacts to the property until an assessment can be made by an individual meeting the appropriate Secretary of the Interior's standards for the identified resource.

We look forward to further coordination with you in assessing the impacts of agricultural practices on archaeological sites at the Iowa Army Ammunition Plant through the Agricultural and Grazing Outlease Management Plan program in the future.

We have made these **recommendations** according to our responsibility defined by Federal law pertaining to the Section 106 process. Your agency does not have to follow our **recommendations** to comply with the Section 106 process. **If you choose not to follow our recommendations, please consult 36 CFR Part 800, as appropriate, for guidance on how to conclude the Section 106 consultation.**

Should you have any questions please contact me at (515) 281-4358.

Sincerely,

Douglas W. Jones

Douglas W. Jones, Archaeologist and Review and Compliance Program Manager
State Historic Preservation Office
State Historical Society of Iowa
(515) 281-4358

cc: Joe Haffner, Management Agronomist, IAAAP

1110 29 112

OCT 28 2011

DEPARTMENT OF THE ARMY
IOWA ARMY AMMUNITION PLANT
17571 HIGHWAY 79
MIDDLETOWN, IOWA 52638-5000

REPLY TO
ATTENTION OF

24 October 2011

Installation Stewardship Division

State Historical Preservation Office
C/o Mr. Doug Jones
Capitol Complex
Des Moines, Iowa 50319

Dear Mr. Jones:

1. This review is for the North Loop Water Main Replacement Project at the Iowa Army Ammunition Plant (IAAAP).

2. Replacing the main lines in this section of the water supply system requires a 100 foot corridor and includes several ravine crossings. The IAAAP has conducted an archaeological survey of this corridor. Eight archaeological sites including five new sites are within the area of potential effect (APE) for this project.

3. The recommendations in the enclosed phase 1 investigation by Bear Creek Archeology, Inc. are "No Further Investigation" for the APE and "not eligible for listing in the NRHP" for all eight archaeological sites (13DM479, 13DM599, 13DM603, 13DM1319, 13DM1320, 13DM1321, 13DM1322 and 13DM1323).

4. The IAAAP submits a determination of "No Historic Properties Adversely Affected" for this project.

5. If you have any questions or comments, please feel free to contact Mr. Joe Haffner, Telephone (319) 753-7903, Fax (319) 753-7601 and E-mail: joseph.j.haffner.civ@mail.mil.

Sincerely,

Michael C. Bruens
Lieutenant Colonel, US Army
Commanding

Enclosures

CONCUR

NAME Douglas W. Jones
REVIEW & COMPLIANCE PROGRAM MANAGER, SHSI

DATE 10/31/2011

JAN 2 4 2012
1007 29029

DEPARTMENT OF THE ARMY
IOWA ARMY AMMUNITION PLANT
17571 HIGHWAY 79
MIDDLETOWN, IOWA 52638-5000

REPLY TO
ATTENTION OF

18 January 2012

Installation Stewardship Division

State Historical Preservation Office
C/o Mr. Doug Jones
Capitol Complex
Des Moines, Iowa 50319

Dear Mr. Jones:

1. This review is for an alternate route within the South Loop Water Main Replacement Project at the Iowa Army Ammunition Plant (IAAAP).

2. The area of potential effect (APE) for this project will be limited to the proposed alternate route. Enclosed is the alternate route phase 1 cultural resources survey. The cultural resources survey did not identify any archeological sites within the APE. While this report is a draft should SHPO concur it will be considered final in its current form.

3. The IAAAP submits a determination of "No Historic Properties Adversely Affected" for this project.

4. If you have any questions or comments, please feel free to contact Mr. Joe Haffner, Telephone (319) 753-7903, Fax (319) 753-7601 and E-mail: joseph.j.haffner.civ@mail.mil.

Sincerely,

Michael C. Bruens
Lieutenant Colonel, US Army
Commanding

Enclosures

CONCUR

NAME Douglas W. Jones
INTERIM DEPUTY STATE HISTORIC PRESERVATION OFFICER
DATE 1/25/2012

110229023

FEB 0 1 2012

DEPARTMENT OF THE ARMY
IOWA ARMY AMMUNITION PLANT
17571 HIGHWAY 79
MIDDLETOWN, IOWA 52638-5000

REPLY TO
ATTENTION OF

26 January 2012

Installation Stewardship Division

State Historical Preservation Office
C/o Mr. Doug Jones
Capitol Complex
Des Moines, Iowa 50319

Dear Mr. Jones:

1. This review is for the June 2011 report on The Proposed Closure of Abandoned Wells and Cisterns at the Iowa Army Ammunition Plant's (IAAAP).

2. The IAAAP is requesting comments or concurrence on this report and for the filling of the cisterns listed in the report. The installation's intent is the closure of the wells and cisterns due to safety and environmental concerns. This report directly addresses 77 wells, 82 cisterns, 4 fruit cellars and 6 other subterranean features located during the survey (See the attached Wells and Cisterns Index).

3. The IAAAP submits a determination of "No Historic Properties Adversely Affected" for only the filling of the cisterns in this report. We understand that the closure/plugging of the wells will require additional consultation with your office. We propose a meeting with you and possibly the IDNR to being consultation on the closure of wells on the Installation.

4. The cisterns are planned to be filled in the following manner. All modern debris such as trash bags and plastic milk jugs will be removed. All existing pipes and pumps will be left in place if possible. The bottom will be cracked and the cistern will be filled with sand. The sand will be transported across the site during dry or frozen conditions. Access routes to the cisterns will avoid all visible site features. Lids, caps or cistern covers may need to be removed during this process and will returned to their original position after filling is completed.

5. This projects existing R&C# is 110229023.

6. If you have any questions or comments, please feel free to contact Mr. Joe Haffner, Telephone (319) 753-7903, Fax (319) 753-7601 and E-mail: joe.haffner@us.army.mil.

CONCUR

NAME Douglas W. Jones
INTERIM DEPUTY STATE HISTORIC PRESERVATION OFFICER
DATE 3/2/2012

Concurred by expiration of the 30 day comment period.

Sincerely,

Michael C. Bruens
Lieutenant Colonel, US Army
Commanding

Enclosures

AUG 2 7 2012

1208 29 114

DEPARTMENT OF THE ARMY
IOWA ARMY AMMUNITION PLANT
17571 HIGHWAY 79
MIDDLETOWN, IOWA 52638-5000

REPLY TO
ATTENTION OF

22 August 2012

JMIA-OSN

State Historical Preservation Office
C/o Mr. Doug Jones
Capitol Complex
Des Moines, Iowa 50319

Dear Mr. Jones:

1. This review is for resurfacing of Road B. This work will be an in-kind replacement of the existing roadway surface, sub base and culverts. The APE of this project is within the road right-of-way and spoils areas shown on the enclosed map. No known archaeological sites are within the APE for this project. The spoils areas have been highly disturbed during past construction and borrow activities. The existing sub base will be removed and used to widen the road shoulders by 2-3 feet. Any remaining sub base will be placed in the spoils areas. The existing road surface will be used as new sub base and a new road surface will be poured.

2. The IAAAP submits a determination of "No Historic Properties Adversely Affected" for this project.

3. If you have any questions or comments, please feel free to contact Mr. Joe Haffner, Telephone (319) 753-7903, Fax (319) 753-7601 and E-mail: joseph.j.haffner.civ@mail.mil.

Sincerely,

Michael C. Bruens
Lieutenant Colonel, US Army
Commanding

CONCUR

NAME Douglas W. Jones
INT. DEPUTY STATE HISTORIC PRESERVATION OFFICER
DATE 8/28/2012

APPENDIX G: 2006 PROGRAM COMMENTS

Preserving America's Heritage

PROGRAM COMMENT FOR
WORLD WAR II AND COLD WAR ERA (1939 – 1974)
AMMUNITION STORAGE FACILITIES

I. Introduction

This Program Comment provides the Department of Defense (DoD) and its Military Departments with an alternative way to comply with their responsibilities under Section 106 of the National Historic Preservation Act with regard to the effect of the following management actions on World War II and Cold War Era ammunition storage facilities that may be eligible for listing on the National Register of Historic Places: ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance, new construction, demolition, deconstruction and salvage, remediation activities, and transfer, sale, lease, and closure of such facilities.

The term Ammunition Storage Facilities means all buildings and structures, listed in or eligible for listing in the National Register of Historic Places, that were designed and built as ammunition storage facilities within the years 1939-1974, regardless of current use, and that are identified by a DoD Category Group (2 digit) code of 42, Ammunition Storage (category code 42XXXX), in the Military Service's Real Property Inventory currently or at the time of construction. Table 1 (attached) provides all such buildings and structures associated with ammunition storage, by Military Department, that are applicable to this program comment.

In order to take into account the effects on Ammunition Storage Facilities, DoD and its Military Departments will conduct documentation in accordance with The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. As each Military Department will be responsible for conducting its own mitigation actions, the following required documentation is structured by Military Department, followed by DoD-wide requirements.

II. Treatment of Properties

A. Army Mitigation

1. The Army shall expand and revise its existing context study, Army Ammunition and Explosives Storage in the United States, 1775-1945 to include the Cold War Era. This document provides background information and criteria for evaluating the historic significance of such buildings. The updated context study will:

identify the changes in ammunition storage during the Cold War;

focus on the changes required for ammunition storage due to technological advancement in weaponry;

consider the importance of major builders, architects or engineers that may have been associated with design and construction of Ammunition Storage Facilities throughout the Army or at specific Army installations; and

describe the inventory of Ammunition Storage Facilities in detail, providing information on the various types of buildings and architectural styles and the quantity of each.

2. The Army shall undertake in-depth documentation on Ammunition Storage Facilities at nine installations. The existing context study concluded that the Army possessed "only a few basic types and an abundance of examples" of Ammunition Storage Facilities, due to the standardization of ammunition storage facilities beginning in the 1920s. The context study suggests that six geographically dispersed installations contain an array of primary examples of both aboveground and underground magazines with a high degree of integrity:

Hawthorne Army Depot, Nevada – early igloos;

McAlester Army Ammunition Plant, Oklahoma – Corbetta Beehive;

Pine Bluff Arsenal, Arkansas – biological and chemical igloos;

Ravenna Army Ammunition Plant, Ohio – standard World War II and aboveground magazines;

Blue Grass Army Ammunition Plant, Kentucky – standard World War II igloos and aboveground magazines; and

Louisiana Army Ammunition Plant, Louisiana – Stradley special weapons.

The Army shall document these six as well as three additional installations that possess Cold War Era Ammunition Storage Facilities. Documentation at the three additional installations will be determined after completion of the expanded context study described in section II.A.1., above. This study will include a brief history of the installation and the surrounding community, if appropriate, and a detailed history of the storage facilities and documentation of the buildings. The documentation will primarily consist of historic photographs and existing plans. Documentation will be tailored to address the different natures of aboveground and underground storage.

B. Navy Mitigation

1. The Navy will develop a supplemental context study that will be attached as an appendix to the Army's existing context study, Army Ammunition and Explosives Storage in the United States, 1775-1945. The final product will be a separately bound volume of additional information and photographs and tabular appendices that, when presented with the Army's and Air Force's context studies, provide a clear picture of the Department of Defense's Ammunition Storage facilities. This context study appendix will:

cover both World War II and the Cold War Era, from 1939-1974;

explore the changes in ammunition storage resulting from World War II;

examine the changes required for ammunition storage due to technological advancement in weaponry during the Cold War;

consider the importance of major builders, architects or engineers that may have been associated with design and construction of Ammunition Storage Facilities; and

describe the inventory of Ammunition Storage Facilities in detail, providing information on the various types of buildings and architectural styles and the quantity of each.

2. The Navy shall document a representative sample of the basic types of both aboveground and underground ammunition storage facilities. The Navy will choose three geographically dispersed installations with the greatest number and variety of such resources. The Marines will choose one such installation. The sample chosen shall be the best representative examples of the range of Ammunition Storage types constructed during World War II and the Cold War era. This documentation will include collecting existing plans and drawings, writing a historic description in narrative or outline format, and compiling existing historic photographs of the structures. Documentation will be tailored to address the different natures of aboveground and underground storage.

C. Air Force Mitigation

1. The Air Force will develop a supplemental context study that will be attached as an appendix to the Army's existing context study, Army Ammunition and Explosives Storage in the United States, 1775-1945. The final product will be a separately bound volume of additional information and photographs and tabular appendices that, when presented with the Army's and Navy's context studies, provide a clear picture of the Department of Defense's Ammunition Storage facilities. This context study appendix will:

cover the Cold War Era, from 1946-1974;

explore the changes in ammunition storage resulting from the Cold War;

examine the changes required for ammunition storage due to technological advancement in weaponry during the Cold War;

consider the importance of major builders, architects or engineers that may have been associated with design and construction of Ammunition Storage Facilities; and

describe the inventory of Ammunition Storage Facilities in detail, providing information on the various types of buildings and architectural styles and the quantity of each.

2. The Air Force shall document a representative sample of the basic types of both aboveground and underground ammunition storage facilities. The Air Force will choose three geographically dispersed installations with the greatest number and variety of such resources. The sample chosen shall be the best representative examples of the range of Ammunition Storage types constructed during the Cold War era. This documentation would include collecting existing plans and drawings, writing a historic description in narrative or outline format, and compiling existing historic photographs of the structures. Documentation will be tailored to address the different natures of aboveground and underground storage.

3. The Air Force will not be required to consider its World War II Era facilities in these mitigation actions. The Air Force was established in September 1947 and therefore was not associated with structures constructed during this era. Rather the Air Force has inherited its current inventory of 263 World War II Era Ammunition Storage facilities from former Army installations. Given the substantial

mitigation actions that will be undertaken by the Army to document its facilities, further documentation for the small number of similar facilities located at Air Force installations provides no additional historic value. While no documentation will be done on World War II facilities under the Air Force's control, all of the 263 facilities in its inventory are covered under this Program Comment.

D. DoD-Wide Mitigation

1. Copies of the documentation described above will be made available electronically, to the extent possible under security concerns, and hard copies will be placed in a permanent repository, such as the Center for Military History.

2. In addition, as a result of on-going consultations, each Military Department will provide a list of properties covered by the Program Comment, by State, to State Historic Preservation Officers, Tribal Historic Preservation Officers, and other interested parties, as appropriate. Each Military Department will be responsible for determining how to convey its information.

3. All Military Departments will encourage adaptive reuse of the properties as well as the use of historic tax credits by private developers under lease arrangements. Military Departments will also incorporate adaptive reuse and preservation principles into master planning documents and activities.

The above actions satisfy DoD's requirement to take into account the effects of the following management actions on World War II and Cold War Era ammunition storage facilities that may be eligible for listing on the National Register of Historic Places: ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance, new construction, demolition, deconstruction and salvage, remediation activities, and transfer, sale, lease, and closure of such facilities.

III. Applicability

A. 1. This Program Comment applies solely to Ammunition Storage Facilities as defined in Section I, above. The Program Comment does not apply to the following properties that are listed, or eligible for listing, on the National Register of Historic Places: (1) archeological properties, (2) properties of traditional religious and cultural significance to federally recognized Indian tribes or Native Hawaiian organizations, and/or (3) ammunition storage facilities in listed or eligible National Register of Historic Places districts where the ammunition storage facility is a contributing element of the district and the proposed undertaking has the potential to adversely affect such historic district. This third exclusion does not apply to historic districts that are made up solely of ammunition storage facility properties. In those cases the Program Comment would be applicable to such districts.

Since the proposed mitigation for the Ammunition Storage facilities documents site plans, building designs, and the spatial arrangement of ammunition storage facilities, along with the events and actions that lead to the development of standardized ammunition storage facilities in DoD, the important aspects of ammunition storage, whether single buildings or districts made up entirely of ammunition storage, will be addressed regardless of the type of undertaking that may affect this particular property type. The one currently known ammunition storage district, at Hawthorne Army Ammunition Plant, has been identified for further study, as outlined in Section II(A)(2) above.

2. An installation with an existing Section 106 agreement document in place that addresses ammunition storage facilities can choose to:

(i) continue to follow the stipulations in the existing agreement document for the remaining period of the agreement; or

(ii) seek to amend the existing agreement document to incorporate, in whole or in part, the terms of this Program Comment; or

(iii) terminate the existing agreement document, and re-initiate consultation informed by this Program Comment if necessary.

3. All future Section 106 agreement documents developed by the Military Departments related to the undertakings and properties addressed in this Program Comment shall include appropriate provisions detailing whether and how the terms of this Program Comment apply to such undertakings.

IV. Completion Schedule

On or before 60 days following issuance of the Program Comment, DoD, its Military Department and ACHP will establish a schedule for completion of the treatments outlined above.

V. Effect of the Program Comment

By following this Program Comment, DoD and its Military Departments meet their responsibilities for compliance under Section 106 regarding the effect of the following management actions on World War II and Cold War Era ammunition storage facilities that may be eligible for listing on the National Register of Historic Places: ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance, new construction, demolition, deconstruction and salvage, remediation activities, and transfer, sale, lease, and closure of such facilities. Accordingly, DoD installations are no longer required to follow the case-by-case Section 106 review process for such effects. As each of the Military Departments is required under this Program Comment to document their own facilities, failure of any one Military Department to comply with the terms of the Program Comment will not adversely affect the other Departments' abilities to continue managing their properties under the Program Comment.

This Program Comment will remain in effect until such time as the Office of the Secretary of Defense determines that such comments are no longer needed and notifies ACHP in writing, or ACHP withdraws the comments in accordance with 36 CFR § 800.14(e)(6). Following such withdrawal, DoD and its Military Departments would be required to comply with the requirements of 36 CFR §§ 800.3 through 800.7 regarding the effects under this Program Comments' scope.

DoD, its Military Departments and ACHP will review the implementation of the Program Comment seven years after its issuance and determine whether to take action to terminate the Program Comment as detailed in the preceding paragraph.

John L. Nau, III
Chairman

August 18, 2006
Date

Attachment: Table

TABLE 1 - RPCS Hierarchy for Category Group 42

CG & Title	BC	BC Title	FAC	UM	FAC Title	MilDep	CAT CODE	UM AREA	UM OTH	UM ALT	CATCODE LONG NAME
- 42 - Ammunition Storage											
	421	Depot and Arsenal Ammunition Storage									
			4211	SF	Ammunition Storage, Depot and Arsenal						
						Army	42104	SF			EXPLOSIVE TRANSFER BUILDING, DEPOT LEVEL
						Army	42107	SF			STRADLEY, NONATOMIC BLAST RESISTANT, DEPOT LEVEL
						Army	42110	SF			FUSE AND DETONATOR MAGAZINE, DEPOT LEVEL
						Army	42120	SF			HIGH EXPLOSIVE MAGAZINE, DEPOT LEVEL
						Army	42150	SF			SMOKELESS POWDER MAGAZINE, DEPOT LEVEL
						Army	42160	SF			SPECIAL WEAPONS MAGAZINE, DEPOT LEVEL
						Army	42170	SF			GUIDED MISSILE MAGAZINE, DEPOT LEVEL
						Army	42180	SF			IGLOO STORAGE, DEPOT LEVEL
						Army	42181	SF			AMMUNITION STOREHOUSE, DEPOT LEVEL
						Army	42182	SF			SMALL ARMS AMMUNITION MAGAZINE, DEPOT LEVEL
						Army	42183	SF			GENERAL PURPOSE MAGAZINE, DEPOT LEVEL
						Army	42184	SF			AMMUNITION HUT, DEPOT LEVEL
						Army	42186	SF			AMMUNITION STORAGE STRUCTURE, DEPOT LEVEL
						Army	42288	SF			AMMO STORAGE OTHER THAN DEPOT OR UNIT
						Navy	42112	SF		CF	FUSE&DETONATOR MAGAZINE
						Navy	42122	SF		CF	HIGH-EXPLOSIVE MAGAZINE
						Navy	42132	SF		CF	INERT STOREHOUSE
						Navy	42142	SF		CF	SMOKEDRUM STOREHOUSE
						Navy	42148	SF		CF	SMALL-ARMS PYROTECHNIC MAGAZINE
						Navy	42152	SF		CF	SMOKELESS-POWDER-PROJECTILE MAGAZINE
						Navy	42162	SF		CF	SPECIAL-WEAPONS MAGAZINE
						Navy	42172	SF		CF	MISSILE MAGAZINE

		4212	SF	Intercontinental Ballistic Missile Storage Facility				
					Navy	42182	SF	SUBMARINE LAUNCHED BALLISTIC MISSILE STORAGE FACILITY
422	Installation and Ready Issue Ammunition Storage							
		4221	SF	Ammunition Storage, Installation				
					Air Force	422253	SF	STORAGE, MULTI-CUBICLE MAGAZINE
					Air Force	422256	SF	STORAGE, ROCKET CHECKOUT AND ASSEMBLY
					Air Force	422257	SF	STORAGE SEGREGATED MAGAZINE
					Air Force	422258	SF	STORAGE MAGAZINE ABOVE GROUND TYPE A, B, &C
					Air Force	422259	SF	MISSILE STORAGE FACILITY
					Air Force	422264	SF	EA STORAGE IGLOO
					Air Force	422271	SF	STORAGE, MODULE BARRICADED
					Air Force	422273	SF	STORAGE IGLOO STEEL ARCH UNDERPASS
					Army	42210	SF	FUSE AND DETONATOR MAGAZINE, INSTALLATION
					Army	42215	SF	HIGH EXPLOSIVE MAGAZINE, INSTALLATION
					Army	42225	SF	SMOKEDRUM STOREHOUSE, INSTALLATION
					Army	42230	SF	SMALL ARMS AMMUNITION AND PYROTECHNICS MAGAZINE, INSTALI
					Army	42231	SF	AMMUNITION STOREHOUSE, INSTALLATION
					Army	42235	SF	READY MAGAZINE, INSTALLATION
					Army	42240	SF	FIXED AMMUNITION MAGAZINE, INSTALLATION
					Army	42250	SF	SPECIAL WEAPONS MAGAZINE, INSTALLATION
					Army	42260	SF	GUIDED MISSILE MAGAZINE, INSTALLATION
					Army	42280	SF	IGLOO STORAGE, INSTALLATION
					Army	42281	SF	AMMUNITION HUT, INSTALLATION
					Army	42283	SF	GENERAL PURPOSE MAGAZINE, INSTALLATION
					Army	42285	SF	UNIT SMALL ARMS AMMUNITION STORAGE, INSTALLATION
					Army	42286	SF	AMMUNITION STORAGE STRUCTURE, INSTALLATION

				Navy	42135	SF	CF READY MAGAZINE
423	Liquid Propellant Ammunition Storage						
		4231	GA	Liquid Propellant Storage, Ammunition Related			
				Air Force	423111	GA	LIQUID PROPELLANT AMMO STORAGE
				Army	42310	SF GA	LIQUID PROPELLANT STORAGE, AMMUNITION, BUILDING
				Army	42311	GA	LIQUID PROPELLANT STORAGE, AMMUNITION, FACILITY
				Army	42312	SF GA	LIQUID PROPELLANT STORAGE, AMMUNITION, STRUCTURE
				Navy	42310	GA	LIQUID-PROPELLANT STORAGE
424	Weapon-Related Battery Storage						
		4241	SF	Battery Storage, Weapon Related			
				Army	42410	SF	BATTERY COLD STORAGE BUILDING
				Navy	42410	SF	SH WEAPON-RELATED BATTERY STORAGE
425	Open Ammunition Storage						
		4251	SY	Open Ammunition Storage			
				Army	42510	SY	AMMUNITION STORAGE PAD
				Navy	42510	SY	OPEN-AMMUNITION-STORAGE PAD
				Navy	42520	SY	CONTAINER-HOLDING YARD -EMPTY
				Navy	42530	SY	BARRICADED MODULE (OPEN)

Preserving America's Heritage

PROGRAM COMMENT FOR WORLD WAR II AND COLD WAR ERA (1939 – 1974) ARMY AMMUNITION PRODUCTION FACILITIES AND PLANTS

I. Introduction

This Program Comment provides the Department of the Army (Army) with an alternative way to comply with its responsibilities under Section 106 of the National Historic Preservation Act with regard to the effect of the following management actions on World War II (WWII) and Cold War Era Army Ammunition Production Facilities and Plants that may be eligible for listing on the National Register of Historic Places (Facilities and Plants): ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance, new construction, demolition, deconstruction and salvage, remediation activities, and transfer, sale, lease, and closure of such facilities.
In order to take into account the effects on Facilities and Plants, the Army will conduct documentation in accordance with The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

II. Treatment of Properties

A. Army Mitigation

1. The Army has an existing context study, Historic Context for the World War II Ordnance Department's Government-Owned Contractor-Operated (GOCO) Industrial Facilities 1939-1945 as well as documentation of nine World War II GOCO Plants.

2. The Army will prepare a supplemental volume that revises and expands the existing context to include the Cold War Era (1946-1974). The updated context study will:

> focus on the changes that the plants underwent to address changing weapons technology and defense needs; and
>
> identify prominent architect-engineer firms that may have designed architecturally significant buildings for Army Ammunition Plants.

3. The Army will prepare documentation that generally comports with the appropriate HABS/HAER standards for documentation for selected architecturally significant Facilities and Plants at two installations. This documentation will be similar to and follow the format of the existing documentation described in section II.A.1, above.

4. Upon completion of the documentation, the Army will then make the existing documentation of the nine WWII GOCO Army Ammunition Plants and the WWII GOCO context and the new documentation, to the extent possible under security concerns, available in electronic format to Federal and State agencies that request it.

5. In addition, as a result of on-going consultations with stakeholders, the Army will provide a list of properties covered by the Program Comment, by state, to the National Conference of State Historic Preservation Officers and the Advisory Council on Historic Preservation.

6. The Army will also develop additional public information on the Army ammunition process, from production through storage, to include:

> a display that can be loaned to one of the Army's museums, such as the Ordnance Museum at Aberdeen Proving Ground, or used at conferences; and
>
> a popular publication on the ammunition process to accompany the display.

Copies of this information will be available electronically, to the extent possible under security concerns, and hard copies will be placed in a permanent repository, such as the Center for Military History.

7. The Army will encourage adaptive reuse of the properties as well as the use of historic tax credits by private developers under lease arrangements. The Army should also incorporate adaptive reuse and preservation principles into master planning documents and activities.

The above actions satisfy the Army's requirement to take into account the effects of the following management actions on Facilities and Plants: ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance activities, new construction, demolition, deconstruction and salvage, remedial activities, and transfer, sale, lease and/or closure of such facilities.

III. Applicability

A. This Program Comment applies solely to Facilities and Plants. The Program Comment does not apply to the following properties that are listed, or eligible for listing, on the National Register of Historic Places: (1) archeological properties, (2) properties of traditional religious and cultural significance to federally recognized Indian tribes or Native Hawaiian organizations, and/or (3) Facilities and Plants listed or eligible National Register of Historic Places districts where the ammunition production facility is a contributing element of the district and the proposed undertaking has a potential to adversely affect such historic district. This third exclusion does not apply to ammunition production related historic districts that are entirely within the boundaries of an ammunition production plant. In those cases the Program Comment would be applicable to such districts.

B. An installation with an existing Section 106 agreement document that addresses Facilities and Plants can choose to:

1. continue to follow the stipulations in the existing agreement document for the remaining period of the agreement; or

2. seek to amend the existing agreement document to incorporate, in whole or in part, the terms of this Program Comment; or

3. terminate the existing agreement document and re-initiate consultation informed by this Program Comment, if necessary.

C. All future Section 106 agreement documents developed by Army installations related to undertakings and properties addressed in this Program Comment shall include appropriate provisions detailing whether and how the terms of the Program Comment apply to such undertakings.

IV. Completion Schedule

On or before 60 days following issuance of the Program Comment, the Army and ACHP will establish a schedule for completion of the treatments outlined above.

V. Effect of the Program Comment

By following this Program Comment, the Army has met its responsibilities for compliance under Section 106 regarding the effect of the following management actions on WWII and Cold War Era Army Ammunition Production Facilities and Plants that may be eligible for listing on the National Register of Historic Places: ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance, new construction, demolition, deconstruction and salvage, remediation activities, and transfer, sale, lease, and closure of such facilities. Accordingly, the Army will no longer be required to follow the case-by-case Section 106 review process for such effects.

VI. Duration and Review of the Program Comment

This Program Comment will remain in effect until such time as Headquarters, Department of the Army determines that such comments are no longer needed and notifies ACHP in writing, or ACHP withdraws the comments in accordance with 36 CFR § 800.14(e)(6). Following such withdrawal, the Army would be required to comply with the requirements of 36 CFR §§ 800.3 through 800.7 regarding the effects under this Program Comments' scope.

Headquarters, Department of the Army and ACHP will review the implementation of the Program Comment seven years after its issuance and determine whether to take action to terminate the Program Comment as detailed in the preceding paragraph.

John L. Nau, III
Chairman

August 18, 2006
Date