

FINAL

**Iowa Army Ammunition Plant
Community Relations Plan Update**

July 2011

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EXECUTIVE SUMMARY

BACKGROUND

This is an update for the Public Involvement and Response Plan developed in May 1991 that determined the level of community concerns and interests in the Installation Restoration Program (IRP) at the Iowa Army Ammunition Plant (IAAAP). The Plan was previously updated in February 2001.

This document focuses on clean-up efforts since 2001 and evaluates the effectiveness of past efforts to keep the general public informed of environmental clean up activities at IAAAP. It recommends communication techniques to keep the public informed of current environmental clean up efforts and recommends methods to involve the public in future clean-up efforts.

PURPOSE

The purposes of this update are to:

- Evaluate current methods and establish additional avenues for sharing knowledge and encouraging community participation regarding the environmental restoration activities, both underway and planned.
- Comply with requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
- Outline specific community relations strategies for addressing these goals, and to provide mechanisms for maintaining a flexible, “living” document that evolves with changing community needs and concerns.

SCOPE

This update applies to the Defense Environmental Restoration Program (DERP) activities at the IAAAP. DERP activities include actions taken under the IRP and the Military Munitions Response Program (MMRP). This update is divided into six sections with eight appendices. They are:

Section 1.0: Contains a brief introduction to the scope of the update and the authority under which it is written and implemented.

Section 2.0: Contains a brief current site description and history of IAAAP since 2001.

Section 3.0: Defines the roles and responsibilities in the development and implementation of the CRP.



Section 4.0: Summarizes community relations activities since 2001 and identifies those that are expected to continue through the present.

Section 5.0: Defines the strategy to be carried out to continue, and improve where needed, two-way communication between IAAAP and the surrounding communities. It also combines the update's objectives and activities to form a comprehensive community relations strategy in line with that of the Army's Public Affairs Office.

Section 6.0: Lists the references and resource material used in the development and preparation of this update.

APPENDICES

The following appendices contain supporting information:

Appendix A: Lists acronyms used in this document

Appendix B: Presents a brief history of minor IRP activities from **1991 to 2008 and** presents a summary of the physical characteristics of the installation which have a bearing on environmental restoration, archaeology and cultural resources, and potential biotic receptors.

Appendix C: Describes the regulations and statutes governing the environmental restoration at IAAAP

Appendix D: Contains a fact sheet on the Restoration Advisory Board (RAB)

Appendix E: Lists the names, addresses, and phone numbers of key representatives of Iowa Army Ammunition Plant, the Restoration Advisory Board, and federal, state, and local agencies and officials

Appendix F: Lists the location of information repositories that contain documents related to the IAAAP

Appendix G: Lists the recommended locations for public meetings

Appendix H: Presents a mail-in form for citizens to comment on and respond to the updated Community Relations Plan (CRP)

FIGURES

The following figures are referenced in this document:

Figure 2-1: Site Location Map

Figure 5-1: IAAAP Installation Restoration Map



The Community Relations Plan (1991), the February 2001 update, and this update are on file in the Administrative Record and the Information Repository. The update will be periodically revised, depending on activities taking place at the IAAAP. Comment/Response forms will be available with all documents for citizens to record their opinion concerning this update. Public comment on this document is welcomed at any time.



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1.0 INTRODUCTION

Most citizens want to become better educated on how to participate in decisions that may affect their community. The purpose of this Community Relations Plan Update (CRPU) is to continue to expand avenues for sharing knowledge and to encourage community participation regarding the hazardous waste restoration activities, both underway and planned for, at the Iowa Army Ammunition Plant (IAAAP), located in Middletown, Iowa. Preparation of a CRPU is also a requirement of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as Superfund) under 40 CFR 300.430 and 300.435. The original CRP, dated May 1991, the February 2001 update, and this update outline specific community relations strategies for addressing these goals and assure that the CRP and current update are flexible, “living” documents that can adjust to evolving community needs and concerns.

In this update, IAAAP presents community relations objectives and strategies to promote public awareness about environmental clean-up efforts at IAAAP. Decisions about CRPU efforts are based on current activities at IAAAP and the related community relations activities and needs. IAAAP will implement this update upon review by the U.S. Environmental Protection Agency (EPA) and the Iowa Department of Natural Resources (IDNR), with input from IAAAP’s citizen-based Restoration Advisory Board (RAB).

Environmental activities are regulated by the EPA under CERCLA and monitored by the Army under the Defense Environmental Restoration Program (DERP).

1.1 ORGANIZATION OF THE CRP

The Army originally developed IAAAP’s CRP in May 1991. The plan was developed to meet the specific needs of the communities that surround IAAAP and those communities that are affected by the groundwater contamination attributed to the site. The CRP was subsequently updated in February 2001. This update re-evaluates those needs and updates the CRP accordingly. This update is divided into six sections and eight appendices.

The Points of Contact for this update and related information are the IAAAP Public Affairs Officer (PAO), phone (319) 753-7101 or the IAAAP Environmental Restoration Project Manager, phone (319) 753-7130.



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2.0 CAPSULE SITE DESCRIPTION

The purposes of the following sections are to provide additional information describing the location, missions, history of IAAAP, and to provide an update to the information published in the CRP of May 1991 and the CRPU of February 2001. It will also review, in general, the nature and extent of environmental programs at the installation since 2001, including the objectives of IAAAP's restoration activities.

A synopsis of historical environmental restoration is provided in Appendix B.

2.1 SITE DESCRIPTION

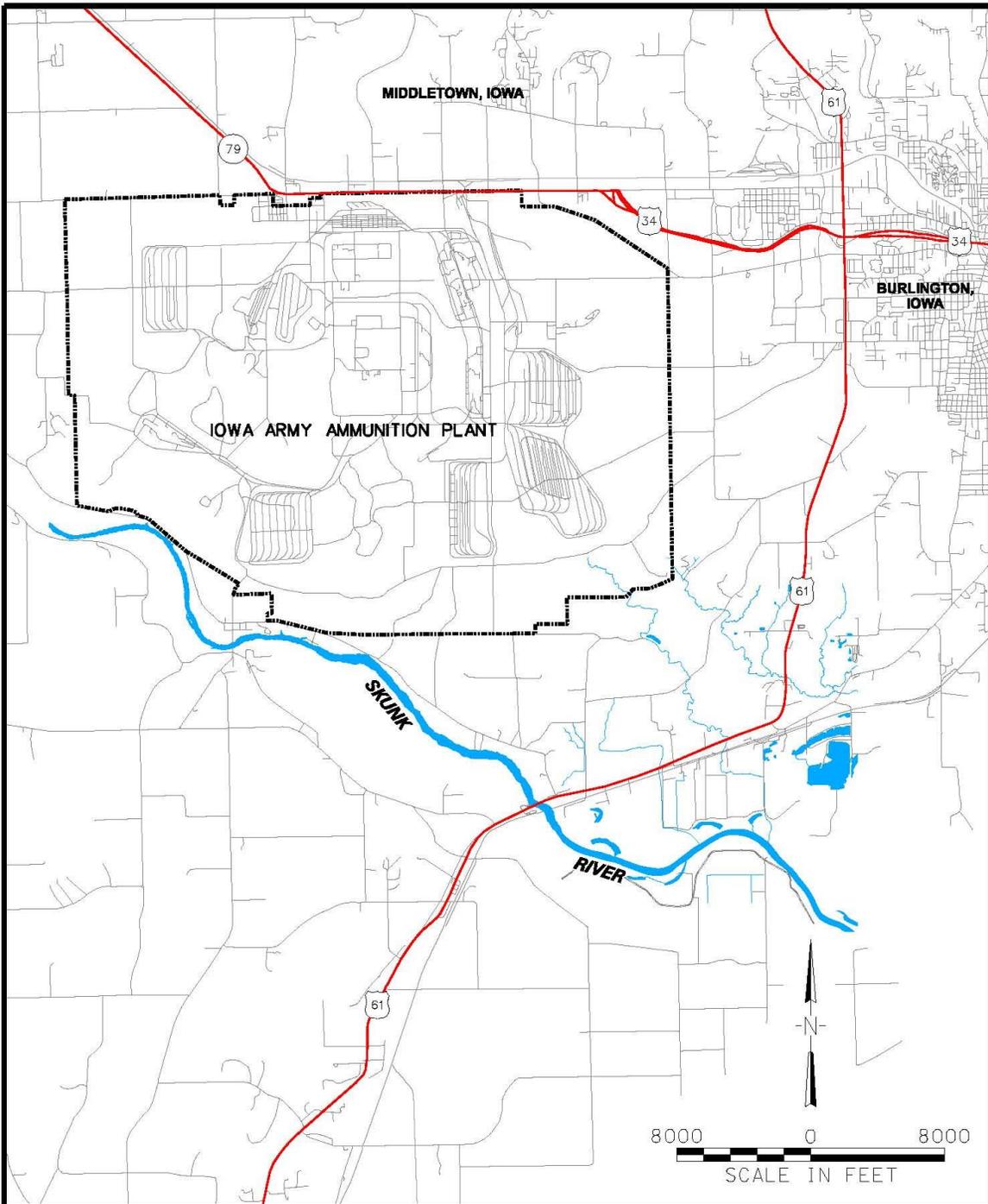
IAAAP is located in southeastern Iowa in the southern portion of Des Moines County, which borders Lee County to the south and Henry County to the west. The installation borders the town of Middletown and is approximately 8 miles west of Burlington, the county's most populated city, located on the west bank of the Mississippi River (Figure 2-1).

IAAAP is located on U.S. Highway 34, which runs east and west through Iowa from Illinois to Nebraska. U.S. Route 61, which runs north and south on the western shore of the Mississippi River, is accessible approximately 8 miles to the east in Burlington. The Great River (MacArthur) Bridge on Highway 34 in Burlington spans the Mississippi River, connecting southeast Iowa with west central Illinois.

Regional transportation needs are met by air, bus, and rail transportation services. The Southeast Iowa Regional (Burlington) Airport, southwest of the city, provides freight and passenger services; the Burlington Northern/Santa Fe Railroad and AMTRAK provide rail services; and Burlington Trailways and Burlington Urban Service provide regional and local bus transportation, respectively.

The facility is a government-owned, contractor operated (GOCO) military industrial installation under the jurisdiction of the U.S. Army Joint Munitions Command (JMC), headquartered in Rock Island, Illinois. Its primary mission is to load, assemble and pack (LAP) ammunition items, including projectiles, mortar rounds, warheads, demolition charges, and munitions components such as fuses, primers, and boosters. The facility is currently operated by American Ordnance, Limited Liability Corporation and currently employs approximately 850 personnel. In addition, there are other private contractors and subcontractors operating on the site. They include East Camden & Highland Railroad Company for railcar storage, GE Capital Railcar performing railcar repair, Advanced Environmental Technology conducting thermal destruction of rejected explosive items, as well as Tetra Tech, Inc. and URS Corporation conducting environmental clean up.

IAAAP was established in July 1941 as the Iowa Ordnance Plant. The plant's mission was to load, assemble, and pack 75 millimeter (mm) and 155 mm artillery shells and 100 pound to 1,000 pound aerial bombs. The original cost of the plant was \$30 million. It produced munitions for



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DATE: 11-19-08
SOURCE:
PORTIONS OF BASE MAP FROM URS & HYDRO GEOLOGIC

COMMUNITY
RELATIONS PLAN

IOWA ARMY AMMUNITION PLANT
MIDDLETOWN, IOWA

TETRA TECH
OAK RIDGE, TENNESSEE

FIGURE 2-1
SITE LOCATION MAP



World War II until August 1945 and was operated by a private contractor. Operations reverted to U.S. Army control from 1946 until 1951. The plant has been a GOCO under the operation of various contractors since that time. The Army changed the name of the facility to the Iowa Army Ammunition Plant in the early 1960's. Munitions were produced for military activities in Southeast Asia in the 1960s and early 1970s. The former Atomic Energy Commission maintained a presence at the facility from 1947 until 1975 (See the May 1991 CRP for a more detailed history; pages 1-3 to 1-4.)

Since the original CRP dated May 1991, IAAAP continues to be an active Army production facility. It has been determined that past disposal practices at IAAAP have released hazardous substances into the environment. The Army's primary concern is the protection of human health and the environmental restoration of the site.

2.2 DEMOGRAPHICS AND EMPLOYMENT

In 2006, the U.S. Census Bureau estimated the population of Des Moines County at 40,885 and Burlington's population at 25,464. The estimated 2002 population of Middletown was 531 (Burlington/West Burlington Area Chamber of Commerce, Demographic Information for the Greater Burlington Area, February 2004). Additional communities near IAAAP include, to the east, West Burlington (2002) population of 3,100; to the northeast, Mediapolis (2002) population of 1,648; to the northwest, Danville (2002) population 903 and New London (2000) population 1,937; and to the south, the small unincorporated communities of Augusta and Wever. Middletown, Danville, Wever, and Augusta are primarily rural communities, with IAAAP being the second largest single source of employment. Incorporated towns are governed by council/manager or council/mayor structures.

Located in Des Moines County, Iowa, IAAAP's work force is dominated by residents of Middletown, Danville, New London, Mt. Pleasant, West Burlington, Burlington, and Ft. Madison. Some workers commute to IAAAP from Illinois and Missouri. Due to its continuity of operations and consistently large payroll, the site has developed support from many business and community leaders. Also, since it has been operational since World War II, numerous current and former workers residing in local communities have developed and maintained loyalty and identification with the installation.

Des Moines County's industrial base centers in diversified manufacturing that includes production of antenna systems, batteries, cattle and hog feeders, safety paper, chemicals, cleansing compounds, ethanol, desks, gypsum, electronic instruments and components, furniture, medium voltage switchgear, mattresses, millwork, oil, lubricants, paint, paper boxes, printing, spark plugs, industrial tractors, turbines, burial vaults, and potato chips.

Regional agricultural crops include corn, soybeans, and pasture grasses. Beef, dairy cattle, hogs, and poultry are also raised on area farms.

Major regional industries in 2002 identified by the Burlington/West Burlington Area Chamber of Commerce included:



Organization Total Number of Employees Full Time Equivalents or (FTE's)

Over 1,000 Employees

Great River Medical Center

500 to 1,000 Employees

American Ordnance LLC

Case Corporation

Champion Spark Plug

General Electric

Lance, Inc.

200 to 500 Employees

Burlington Northern/Santa Fe Railroad

CSI Employment

Lamont Limited

Raider Precast Concrete, Inc.

U.S. Gypsum

Wal-Mart Stores, Inc.

Winegard Company

75 to 200 Employees

Aldi, Inc.

Andrews Corporation

Antennacraft Company

APAC Customer Services and Sales

Burlington Basket Company

Chittenden & Eastman Company

Hawkeye Concrete Products

Manpower Temporary Services

Precision Resistive Products

Temp Associates

The Hawk Eye

Tuthill Corporation-Murray Turbo Division

Numerous newspapers serve Des Moines County, including dailies such as The Des Moines Register and The Burlington Hawk Eye, and weeklies such as The Des Moines County News and The Mediapolis News. Burlington radio stations include 1150 AM KCPS; 1490 AM KBUR; 88.9 FM KAYP; 93.5 FM KKMI; 103.1 FM KDMG; 105.5 KILJ, and 107.3 FM KGRS. Channel 26 KGCW, Channel 8 WQAD, Channel 6 KWQC, and Virtual Channel 18 KLJB prominently serve the southeast Iowa region. Regional television viewers have access to Mediacom Communications Company which provides a large selection of channels including network stations in the Quad City area of Davenport, Rock Island, and Moline.

Medical facilities include the Great River Medical Center and Health Systems, Henry County Health Center, and Ft. Madison Community Hospital.



Numerous public and private elementary schools exist throughout the county, including the kindergarten through 12th grade Danville Community School, along with six elementary, two middle, one junior high, and three high schools in the Burlington and West Burlington School Districts. The Burlington Community School District is the 21st largest district in Iowa, with an enrollment of approximately 4,300 students.

Southeastern Community College (SCC), located in West Burlington, offers a comprehensive 2-year program of studies including arts and sciences courses and vocational-technical training. Additional colleges and universities near Des Moines County include Iowa Wesleyan College in Mt. Pleasant; Knox College in Galesburg, IL; Western Illinois University in Macomb, IL; and Monmouth College in Monmouth, IL.

Regional recreational and social opportunities are diverse. Quail, turkey, and deer hunting are popular regional sports. Local lakes and the Mississippi River offer fishing for catfish, crappie, and bass. The Des Moines County Conservation Board manages the Starr's Cave Preserve, a 200-acre area just outside of Burlington. Hiking, camping, fishing, and boating are all available at Geode State Park. The park is a 1,640-acre facility managed by the Iowa Department of Natural Resources and is located 15 miles west of Burlington.

Burlington is home to many parks and recreational facilities. Regional parks with picnic facilities include Crapo-Dankwardt Park, Perkins Park, Mosquito Park, Sunnyside Park, and Riverside Park. In addition, there are two public golf courses in the county, a miniature golf course, a roller skating rink, and several other recreational facilities. Community Field, which seats 3,500, is the home of the Burlington Bees, a Class A minor league professional baseball team.

A major regional event that attracts over 100,000 visitors from Iowa, Illinois, northern Missouri, and beyond, is the 6-day long Burlington Steamboat Days-American Music Festival. The Festival begins the second Tuesday in June every year. The activities include daily performances of country, rock, big band, rhythm and blues, and jazz at the Miller Outdoor Stage and Memorial Auditorium. Additional festival activities include fireworks, river cruises, a talent show, parade, and the Snake Alley Art Fair.

2.3 RESTORATION PROGRAMS AND REGULATIONS

The following sections outline the various restoration programs and regulations that are implemented at the IAAAP.

2.3.1 Federal Regulations

CERCLA, which was passed by Congress in 1980, amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986, and implemented through the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), provides regulatory authority to the EPA for environmental restoration of sites where hazardous substances have been released to the environment.



The main steps of an environmental restoration program typically include: Preliminary Assessments (PA), Site Investigation (SI), Remedial Investigation (RI), Feasibility Study (FS), Proposed Plan (PP), Record of Decision (ROD), Remedial Design (RD), and Remedial Action (RA). These steps for IAAAP are detailed in Appendix C.

EPA added the IAAAP to the National Priorities List (NPL) in 1990. The NPL is the EPA's list of sites that appear to pose the greatest threat to human health and the environment, based upon the site assessment process.

The CERCLA process was implemented at IAAAP through the Federal Facilities Agreement (FFA) for site cleanup signed in 1990 by the Army and the EPA, following public comment. The FFA provides the framework for CERCLA response actions, including investigation and cleanup of contamination. The State of Iowa declined to participate as a signatory party to this FFA. The State remains active in the process, however, by reviewing documents and through participation with the Restoration Advisory Board (RAB).

Community involvement in the CERCLA process is required. Previously identified and ongoing community involvement activities include: periodic public meetings, public comment on the FFA, the community interviews conducted in 1990 (documented in Section 2.3 of the 1991 CRP), the publication of the CRP in 1991, establishment of a public information repository and administrative record (listed in Appendix F), public tours, disseminating information on environmental issues through press releases to the local media, slide show presentations, establishment of a RAB in 1997, and a public survey conducted between May and June 2000.

Recent community relations activities for IAAAP have included: establishment of a RAB website (<http://www.iowaaap-irp.com>) and the restoration project website (<http://iaaap.maporigin.com>), quarterly meetings of the RAB, and presenting Earth Day displays.

2.3.2 Army Program

In 1975, the DoD began a program to identify and investigate potentially hazardous sites at military installations. In 1980, Congress passed the CERCLA Act, also known as Superfund, which required the identification, investigation, and cleanup of sites contaminated by past releases of hazardous substances. In 1986, Congress amended CERCLA to create the Defense Environmental Restoration Program (DERP) under the Superfund Amendments and Reauthorization Act (SARA). Section 211 of the SARA requires that the DoD carry out its DERP in accordance with CERCLA. Both CERCLA and SARA establish the legal requirements for identifying, investigating, and remediating inactive hazardous waste sites. The Army follows EPA guidelines in conducting investigation and restoration work in the program. To reduce the risks to human health and the environment, the DoD established two program categories within DERP: the IRP and the Military Munitions Response Program (MMRP).

The IRP focuses on releases of hazardous substances, pollutants, and contaminants that pose environmental health and safety risks. The MMRP was established in September 2001 under new management guidance for the DERP. The MMRP addresses environmental health and safety hazards associated with unexploded ordnance (UXO), discarded military munitions



(DMM), and munitions constituents on former and current military sites. The MMRP supplements the Installation Restoration Program (IRP). In December 2003, the Army performed an inventory of its former training ranges and munitions sites to identify sites that were eligible for the MMRP. The IAAAP fell into the category as being one of the active facilities where portions of the installation met the requirements for inclusion in the MMRP.

The general responsibilities of the Formerly Utilized Sites Remedial Action Program (FUSRAP) at IAAAP are to ensure that the environmental impacts associated with past Atomic Energy Commission (AEC) activities are thoroughly investigated and that appropriate action is taken to protect public health, welfare, and the environment. Following the requirements set by the FUSRAP FFA; FUSRAP will establish a framework for procedures and will set a schedule for the cleanup process. FUSRAP is generally responsible for all contaminants, chemical or radiological, in former AEC areas, unless the chemical contamination is or has already been addressed by the Army. The FUSRAP FFA, however, explicitly excludes groundwater and surface water contamination from the scope of the FUSRAP response noting that groundwater and surface water will be addressed pursuant to the Army FFA.

In 2008, it was determined that the soil in two of the FUSRAP areas (Line 1 and West Burn Pads South of the Road) was specifically covered in the existing Army Records of Decision (RODs). As a result, Line 1 soil and the West Burn Pads Area South of the Road are being remediated by FUSRAP, but such remediation is being conducted under the authority of the Army RODs.

2.4 OBJECTIVES OF ENVIRONMENTAL RESTORATION

The objectives of CERCLA at IAAAP are to:

- Evaluate the nature and extent of the releases of hazardous waste or constituents;
- Evaluate facility characteristics;
- Identify, develop, and implement the appropriate corrective measures to protect human health and the environment

The objectives of the Army's IRP and MMRP at IAAAP are to:

- Comply with existing federal and state statutes and regulations;
- Clean up contaminated sites as quickly as feasible to protect human health and the environment;
- Promote and encourage community involvement during each phase of the environmental restoration process.



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3.0 COMMUNITY RELATIONS PROGRAM ORGANIZATIONS

The Community Relations Plan is implemented by IAAAP in consultation with regulatory agencies and in response to community concerns. Each of these groups provides input and/or oversight in varying degrees to the activities and presentation materials that constitute the Community Relations Program.

3.1 ROLES AND RESPONSIBILITIES

IAAAP holds lead responsibility for developing, maintaining, and updating the installation's Community Relations Program, including this CRP. These activities are typically coordinated through the IAAAP Public Affairs Office, with support from the JMC Public Affairs Teams. Activities include, but are not limited to, website updates, public programs, presentations, and materials for distribution.

The EPA provides technical and non-technical review of press releases referencing FFA activities that are intended for public information. The EPA reviews this material for technical content, factual accuracy, and concurrence with EPA-established community relations' guidelines. EPA monitors and ensures IAAAP's compliance with federal regulatory requirements. The EPA is also a member of the IAAAP RAB.

The Iowa Department of Natural Resources (IDNR) is a limited partner in IAAAP environmental restoration activities. They receive copies of all draft documents for comment and their files. The IDNR is a member of the IAAAP RAB.

The Iowa Department of Public Health (IDPH) may review some materials intended for public information from a public health standpoint. IDPH may also assist in the development of activities and/or materials for the community to ensure appropriateness for the intended audience and cohesiveness with other community health-based issues. The IDPH is a member of the IAAAP RAB.

The surrounding communities provide the focus and direction of IAAAP's Community Relations Program through input during community interviews, public meetings, public comment periods, RAB meetings, through correspondence, and through local officials. Program organization is intended to channel this input into a Community Relations Program that will best serve the needs and concerns of the surrounding communities.



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4.0 HISTORY OF COMMUNITY RELATIONS

Historically, IAAAP's community relations activities related to environmental restoration had been limited until 1989, when the CRP was in development. The final version of the initial CRP was released in 1991. Past community relations activities have included:

- Restoration Advisory Board formed in 1997 to provide input into ongoing environmental restoration projects, and to satisfy regulatory requirements (Appendix D)
- Tours of IAAAP clean up sites for local high school science classes
- Earth Day Tours of the installation
- Public survey conducted in 2000

Other ongoing community relations activities implemented since 2001 include: creation of two websites, one for the RAB and another that addresses clean up projects; periodic on-site RAB tours, establishment of the administrative record on the World Wide Web. All of these activities are expected to continue.

The Army staff plans IAAAP community relations activities. The Army staff receives support from the JMC public affairs and Army Environmental Command environmental offices. The activities described above all pertain to environmental clean up at IAAAP and are prepared for on-site personnel and residents of the local communities.



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5.0 COMMUNITY RELATIONS PROGRAM STRATEGY

Community participation is an important aspect of a site's restoration. Only through the combined efforts of the communities, state and federal agencies, and the IAAAP can effective restoration plans be identified and implemented. The IAAAP's community involvement program includes objectives and strategies that are responsive to public input and issues and concerns that were described in the 2001 CRP Update. The strategies are:

- 1) Maintain open lines of communication with the surrounding communities on environmental issues.
- 2) Inform and educate the surrounding communities and local public officials about environmental clean up activities as they occur.
- 3) Solicit input from the surrounding communities on environmental restoration efforts.

5.1 COMMUNITY RELATIONS PROGRAM OBJECTIVES

The objectives for each strategy of IAAAP's community relations program are as follows:

Strategy 1: Maintain open lines of communication with the surrounding communities on environmental issues.

Objective 1A: Facilitate two-way communication among the surrounding communities and IAAAP on environmental issues. All written materials will emphasize the various avenues for community members to easily receive information, have questions answered, or convey comments. Information will consistently be sent to the local newspapers. Technical information will be explained as clearly and concisely as possible to increase the public's understanding of all the Army's Defense Environmental Restoration Program and the Federal Superfund Program. Organized opportunities for the public to comment on IAAAP's presentation materials, programs, and/or events will be publicized. Community input and inquiry are encouraged at any time via telephone, written correspondence, or approved visits to IAAAP. Efforts to maintain open two-way communications are part of the IAAAP plan to make the surrounding communities active partners with IAAAP in the restoration process. In addition, IAAAP has an active Restoration Advisory Board (RAB). The RAB is a citizen-based advisory group that provides input that the installation needs for community-based decision-making and is responsive to community needs and concerns. The RAB is also charged with the responsibility of passing information about environmental information to the community it represents.

Objective 1B: Maintain communication with local officials and environmental interest groups. Members of local governments are valuable contacts for both the citizens of Des Moines County and IAAAP. The cooperation between local officials and IAAAP is necessary to ensure a harmonious working relationship and a reliable flow of information. Local officials will be on the environmental mailing list, invited to RAB meetings and open houses, and will be given



information/tours upon request. The IAAAP will communicate regularly with environmental interest group representatives interested in protecting the community.

Objective 1C: Provide information to surrounding communities about potential impacts on human health or the environment. IAAAP will inform surrounding communities of public health issues and environmental issues when information becomes available through field investigation or other processes. Public relations efforts for all FUSRAP initiatives will be coordinated with the U.S. Army Corps of Engineers, St. Louis District who will take action under the purview of their separately negotiated FFA. Information on former Atomic Energy Commission (AEC) operations at IAAAP will also be addressed by the U.S. Army Corps of Engineers, St. Louis District. They have the primary responsibility for the former AEC sites. IAAAP will provide contact information upon request.

Strategy 2: Inform and educate the surrounding communities and local public officials about environmental clean up activities as they occur.

Objective 2A: Educate the surrounding communities about the Superfund process; the Army's clean up initiatives. Information will be readily provided on the Superfund process and the Army's clean up initiatives as requested or required. In addition, the surrounding communities will be given information about: a) past remediation/restoration activities and the reasoning behind finishing or closing clean up sites including maps, schedules, and the results of tests; b) the investigation and restoration of each of the IRP sites; and c) how all of these activities fit into IAAAP's overall clean up efforts. This will include enough detail that citizens do not develop unreasonable expectations about the timing or scope of environmental clean up plans.

Strategy 3: Solicit input from the surrounding communities for the development of appropriate environmental restoration efforts.

Objective 3A: Provide a forum for citizens' input into clean up activities at the installation. Community input and participation is an important aspect of successful site restoration. IAAAP's RAB is a citizen-based advisory group that provides the input to the installation or community-based decision-making that will be responsive to community needs and concerns. The RAB is also charged with the responsibility of passing information about environmental restoration to the community it represents. Progress reports on corrective action processes and technical support to the RAB are key factors in promoting informed and valuable reviews and comments from this group. RAB meetings are open to the public and a public comment/question period is on each agenda.

5.2 COMMUNITY INVOLVEMENT ACTIVITIES

The activities described below are designed to meet the community relations objectives discussed in Section 5.1 above. Following each activity are specific required objectives.



5.2.1 Activities

The Army Public Affairs Officer is the central contact person at IAAAP for all Army clean up activities. This person is responsible for preparing accurate, consistent, and timely responses to questions from citizens, civic leaders, and local officials. The Army Public Affairs Officer will coordinate responses with the appropriate project manager and coordinate non-routine responses with the Commander. The Army Public Affairs Officer provides citizens and officials access to an installation official for IAAAP inquiries and concerns. It further allows the installation to promptly address any community concerns as they arise. These community involvement activities support Objectives 1A, 1B, 1C, and 2A.

The IAAAP Army staff will maintain an information repository. IAAAP has established the DERP administrative record on the World Wide Web at www.iaaap.adminrecord.com. The information repository is currently at the IAAAP and may be viewed by the public upon request. The information repository will be placed on the administrative record website in the future. This system provides the community access to information regarding the installation and environmental clean up activities. It also allows them to stay informed of findings at the sites. Documents such as work plans, technical reports, proposed remediation plans, site fact sheets, updates, along with RAB and other public meeting minutes are located in the administrative record and the information repository. Appendix F provides contact information for the IAAAP and web addresses for the RAB, project information, and the administrative record. These community involvement activities support Objectives 1B, 1C, and 2A.

The IAAAP Army staff will maintain a mailing list of individuals and organizations interested in receiving information about IAAAP. A list of local residents and officials, and also other individuals, community groups, or government officials interested in environmental clean up activities will be maintained by the IAAAP. The Army actively solicits additions to the mailing list at public meetings. Contacts on the mailing list receive copies of fact sheets, and other information updates as they develop. The mailing list is updated continually throughout the restoration process. Anyone who wishes to be added to the list should contact the Army Public Affairs Officer at IAAAP (see Appendix E). These community involvement activities support Objectives 1B, 1C, and 2A.

The Army may conduct community interviews/informal discussions as necessary. IAAAP will interview volunteers or conduct surveys periodically in order to stay informed about changing community perceptions, needs, and concerns and to update this CRP. Interviewees/survey recipients may be identified at public meetings or by telephone, mail contact, or word-of-mouth. The confidential interviews/surveys will be used to develop presentation materials and programs, to evaluate the effectiveness of IAAAP's community relations program (and this CRP update), and to provide information for future revisions of the CRP. These community involvement activities support Objectives 1A, 1B, 2A, and 3A.

The IAAAP Army staff will support the IAAAP Restoration Advisory Board (RAB). An active RAB exists at IAAAP and is comprised of an IAAAP co-chair, a community co-chair, representatives of the Iowa Department of Natural Resources (IDNR), the Iowa Department of Public Health (IDPH), the Environmental Protection Agency (EPA), and interested community



members. The RAB was formed using Department of Defense RAB Guidelines and community input, and will recruit new members periodically to ensure a diverse community representation. RAB meetings are open to the community and will be announced in a timely manner to the public through local newspapers. The RAB functions in an advisory capacity to IAAAP, who provides financial, administrative and leadership support (Army Co-Chair) to the RAB. These community involvement activities support Objectives 1A, 1B, and 2A.

The IAAAP will provide clear and accurate information about site boundaries. The approximate locations of IAAAP's known clean up sites are shown in Figure 5-1. More exact boundaries and/or changes may be shown in fact sheets and technical documents dealing with individual sites that will be available on the website and at the information repositories. In addition, a large viewing map may be generated and placed on display at public meetings. These community involvement activities support Objectives 1A, 1B, and 2A.

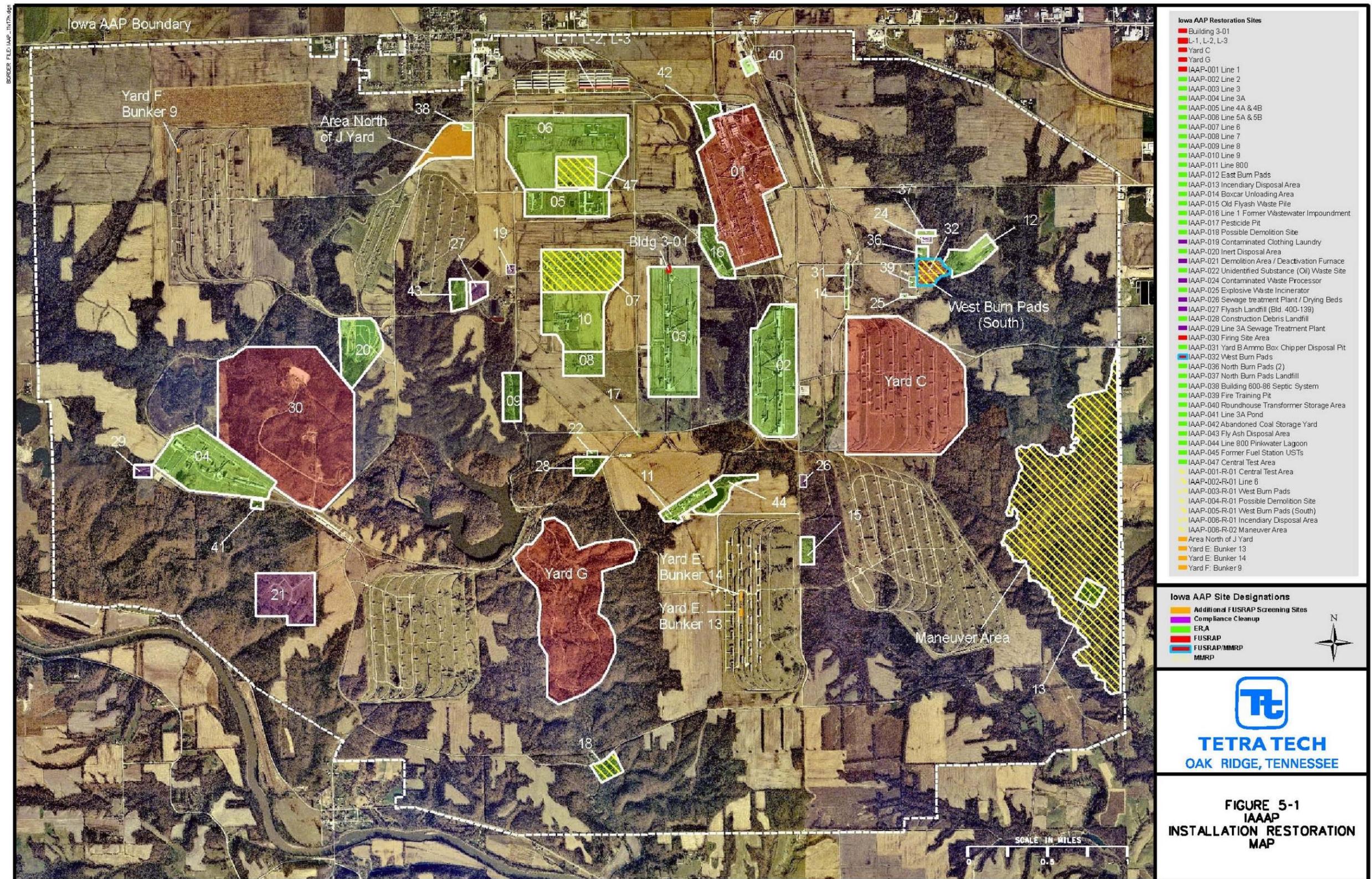
The IAAAP will send news releases to local media. To ensure that the general public receives the results of site activities, notification of upcoming meetings and public comment period, and other site-related information, IAAAP may send news releases or public notices (as appropriate) to newspapers, radio and television stations servicing the area. News releases will also be posted on the website and sent to the members of the RAB. These community involvement activities support Objectives 1A, 1B, 1C, 2A.

The IAAAP may conduct tours of the installation. Groups and private citizens may arrange tours of the installation through the Army Public Affairs Officer. Handouts and other visual aids may be included as part of a tour. Open houses, which include tours of restoration sites, may be held once a year, usually around Earth Day. These community involvement activities support Objectives 1A, 1B, 2A.

The Army will revise this Community Relations Plan Update. IAAAP will revise this CRP update periodically to reflect significant changes in the level and nature of community concerns during Army environmental clean up activities. Revisions will evaluate the effectiveness of previous community relations activities for IAAAP based on consultations with the RAB. It will also include input from ongoing community interviews/surveys, and will propose additional or modified activities, if necessary. The nature, extent, and frequency of CRP revisions will be determined by IAAAP. These community involvement activities support Objectives 3A, 1A, and 1B.

The IAAAP will inform the surrounding communities of the schedule for conducting field investigations and other activities that involve the mobilization of workers and equipment in advance of the beginning of those activities. This advance notice will ensure that people are not surprised by the presence of field personnel and can help IAAAP anticipate increases in public interest that may occur when on-site activities occur.

The IAAAP will provide residents with timely follow-up explanations of sampling and test results. Concise and easily understood information will be made available to the surrounding communities on the outcome of technical activities. On the rare occasions when information cannot be released to the public (i.e., due to government classifications), a clear and simple explanation as to why information cannot be released should be provided.



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The Army will provide information on Technical Assistance for Public Participation (TAPP) and Technical Assistance Grants (TAGs). IAAAP will provide information on TAPPs and TAGs to any interested party. The Army TAPP program provides community members of the RABs independent support through the use of government purchase orders. These members may apply to the Army for independent assistance in interpreting scientific and engineering issues with regard to the nature of environmental hazards and restoration activities at the installation. The EPA's TAG program enables groups of interested citizens to obtain assistance in interpreting and understanding data generated during the remedial process. TAGs provide up to \$50,000 to community groups wishing to hire consultants to interpret sampling results, reports and other documents. The group must match twenty percent of the requested funding amount. The matching funds may come from cash or in-kind contributions and originate from any non-federal source. TAGs cannot be used to duplicate field or laboratory work. They can only be used to understand or interpret existing documents and activities conducted at the site. The EPA must be contacted for TAGs. It is not an Army program. These community involvement activities support Objectives 2A and 3A.

5.3 REGULATORY TECHNICAL MILESTONES

The CERCLA process includes the following major milestones. Descriptions of these milestones are provided in Appendix C.

- Preliminary Assessment
- Site Investigation
- Remedial Investigation
- Feasibility Study
- Proposed Plan
- Record of Decision
- Remedial Design
- Remedial Action

The following activities will be implemented by the IAAAP to the extent possible, as required or relevant, to assist the community in understanding the IAAAP's environmental restoration program activities. The milestones and associated activities are listed in the order the milestones are likely to occur.

The public may provide input during all phases of the environmental clean up at the IAAAP by attending and participating in regular RAB meetings. Additionally, the public may contact a RAB member to represent their interests at the RAB meeting.

The Army will provide opportunities for the public to review the Feasibility Studies (FS) and the Proposed Plans. IAAAP will publish a public notice announcing the availability of the documents in the information repositories and will include a brief summary of the proposed plan. The notice must also announce a public comment period of at least 30 days.



The Army will then hold a public information meeting to discuss the FS/Proposed Plan. A public meeting will give community members an opportunity to participate in the progress of corrective measures. The public notice will be published in the local newspapers announcing details for the public meeting to discuss the Feasibility Study and the Proposed Plan. The public meeting would present the proposed alternatives for remediating the site and the Army's preferred plan for addressing site restoration. This meeting will also serve as an opportunity for citizens to discuss their concerns on the proposed alternatives with facility personnel. Meeting proceeding will be transcribed and placed in the information repositories. Other meetings, workshops, and/or open houses may be held as needed. Suggested locations for public meetings are listed in Appendix G.

The Army will announce the closure of any environmental clean up site. When the corrective action program for an environmental clean up site is completed and approved by the regulatory agencies, IAAAP will announce the site is closed either through a fact sheet and/or in a news release sent to the local media. Closure of an environmental clean up site may require a permit modification, and the community involvement activities required for that activity would be followed.



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APPENDIX A

LIST OF ACRONYMS

AAP	Army Ammunition Plant
AEC	Atomic Energy Commission
CEA	Cap Extension Area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Community Relations Plan
CRPU	Community Relations Plan Update
CY	Cubic Yards
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DOE	U.S. Department of Energy
DMM	Discarded Military Munitions
EPA	Environmental Protection Agency
ER, A	Environmental Restoration, Army
FFA	Federal Facilities Agreement
FS	Feasible Study
Ft	Feet
FTE	Full-Time Employees
FUSRAP	Formerly Utilized Site Remedial Action Program
GOCO	Government-Owned, Contract Operated
IDA	Inert Disposal Area
IAAAP	Iowa Army Ammunition Plant
IDNR	Iowa Department of Natural Resources
IDPH	Iowa Department of Public Health
IGS	Iowa Geological Survey
IRP	Installation Restoration Program
JMC	Joint Munitions Command
LAP	Load, Assemble, and Pack
Msl	Mean Sea Level
MMRP	Military Munitions Response Program
MEC	Munitions and Explosives of Concern
NEPA	National Environmental Policy Act
NPL	National Priorities List
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NRMP	Natural Resources Management Plan
OSC	Operations Support Command
PA	Preliminary Assessment
PP	Proposed Plan
PAO	Public Affairs Officer
RRP	Rapid Response Program
ROD	Record of Decision
RA	Remedial Action



RD	Remedial Design
RI	Remedial Investigation
RCRA	Resource Conservation and Recovery Act
RAB	Restoration Advisory Board
RDX	Royal Demolition Explosive
SI	Site Investigation
SARA	Superfund Amendments and Reauthorization Act
SCC	Southeastern Community College
TAG	Technical Assistance Grants
TAPP	Technical Assistance for Public Participation
TNT	Trinitrotoluene
USACE	United States Army Corps of Engineers
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USDA	United States Department of Agriculture
UXO	Unexploded Ordinance
WBPA	West Burn Pad Area



APPENDIX B

MAJOR IRP ACTIVITIES FROM 1991 – 2008

The primary source of contamination at the IAAAP is attributable to the past operating practices in which explosives, contaminated wastewater, and sludge were discharged to uncontrolled on-site lagoons and impoundments. Additional sources of contamination included open burning of explosive materials and munitions, and land filling of waste material. While only a small portion of the treated wastewater, containing residual explosives and other contaminants regulated under the IAAAP's NPDES permit, is discharged to surface water, process wastewaters are currently treated and recycled. The history of the IAAAP from 1991 to 2008 is briefly discussed in the following section.

In 1991, a PA and Site Investigation (SI) were conducted at the IAAAP.

In 1992, the IAAP-042, Abandoned Coal Storage Yard, removal was completed. The area was backfilled and vegetated with native grasses.

In 1994, the Army connected off-post residents south of the Plant to a rural water supply thereby removing the exposure pathway of contaminants to them.

In 1995, removal actions at the Pesticide Pit and Explosive Sumps were completed under the Rapid Response Program (RRP). Soils from the Pesticide Pit were transported to an approved off-site incinerator. Soils from the sumps were temporarily held and subsequently placed in Trench 6 of the Inert Landfill in 1997.

In 1996, the RI and Corrective Action Management Unit were completed.

In 1997, over 80,000 cubic yards (CY) of soil was removed from the Former Line 1 Impoundment Area and the Line 800 Pinkwater Lagoon. Soils from the sumps which were excavated in 1995 and stored at the IDA were placed into Trench 6. Blue sludge which was also stored at the IDA was placed in Trench 6.

In 1998, 5 cells were capped at the Inert Disposal Area (IDA). Impacted soil was removed from the East Burn Pads and the North Burn Pads. A Bio-Slurry Study and Humic Polymer Study were completed. The Supplemental RI was started that documented the activities for Eco-risks at the Line 800 Pinkwater lagoon and other areas. The Interim and Final Record of Decision (RODs) were also signed.

In 1999, soil removal was completed at the East Burn Pads. Soil removals and treatment at the Fire Training Pit were also completed. A small field study of Low Temperature Thermal Desorption treatment for explosive contaminated soils was conducted. Monitoring wells were placed around the Corrective Action Management Unit (IDA Trench 7). In addition, 11 long term monitoring wells were also installed.



In 2000, soil removal at the West Burn Pad Area (WBPA) was completed. The cap extension for the IDA was completed as was the soil removal around production buildings at Lines 5A/5B.

In 2001, no removal or remedial actions were completed. The Army connected 34 residents south of the plant to rural water supply. These connections were for residents who refused service in 1994.

In 2002, the treatment of WBPA Soils was completed and soil removal at the Former Fuel Station was completed.

In 2003, supplemental soil removal at the Fire Training Pit was completed.

In 2004, the Army received a Certificate of No Further Action from the State of Iowa for the Former Fuel Station. Remedial actions for Phase IV soil sites were also completed. The IRP awarded a performance based contract to remediate soils and groundwater at the IAAAP.

In 2005, the off-site groundwater ROD was completed.

In 2006, the first Five Year Review was completed.

In 2007, Phases V, VII, and VIII of soil removal were completed. The implementation of the Remedial Action (RA) for the off-site groundwater plume began.

In 2008, the Interim ROD for closure of the Cap Extension Area (CEA), Trench 6, and Trench 7 at the IDA was completed.

IAAAP SITE SETTING

The following information was extracted from the Integrated Natural Resources Management Plan and Environmental Assessment, and the Draft Final Work Plan for Supplemental Remedial Investigation Operable Unit 4

Physiography and Topography

IAAAP is in the Southern Iowa Drift Plain. The highest elevation in the county, 862 feet above mean sea level (ft msl), is located about three miles southwest of Yarmouth. The lowest elevation, 520 ft msl lies at a point where the Skunk River enters the Mississippi River at the southeastern boundary of the county. Vertical intervals between lowlands and adjoining uplands generally range from 50 to 120 feet. Elevations at the IAAAP range from 732 ft msl along the northern extent of the installation, to about 544 ft msl throughout the extensive southern area of Long Creek and Skunk River.



Geology

Approximately one million years ago, the first Pleistocene glaciers began to form in Iowa. The third glacial epoch, the Illinoian, pushed west from the Labradorean Center and entered Iowa only in the Southeastern part of the state. Here the ice pushed the Mississippi River westward, and for a time, the river flowed around the western edge of the lobe of ice. When the ice melted, the river returned to its former channel. In the area of the Illinoian ice sheet, the glacial drift averaged 30 feet deep.

During the interglacial periods, loess was deposited on the glacial drift. Loess is windblown material composed principally of silt with small amounts of sand and clay and is the basis for the development of very good soil. It is found in many places throughout the State including the installation.

The land of southern Iowa has been subjected to erosion by water longer than the land in northern Iowa. Rivers have deepened their channels; intervening lands, frequently more than 200 feet higher in elevation than the floodplains, are well drained. Southern Iowa is described as a maturely dissected plain. According to the Seismic Risk Map, the Burlington area of Iowa is located in Zone 1, an area relatively free of earthquakes.

Soils

Des Moines county soils are loess-covered and glacial till. They formed under prairie and forest vegetation. With the exception of developing soils associated with rivers and drains, soils on the IAAAP belong to two soil orders: the Mollisols and Alfisols. Mollisols are the most productive soils in the United States. They are dark colored soils (due to their rich and high organic matter content). Alfisols are also highly fertile and highly productive soils. They have a base saturation of 35% or greater.

Twenty-seven soil series are mapped by the Natural Resources Conservation Service (former Soil Conservation Service) on the IAAAP. The soils in Des Moines County consist of seven soil associations (USDA Soil Survey of Des Moines County Iowa, 1983). Each association has a distinctive pattern of soils, relief, and drainage, making it a unique natural landscape. Typically, an association consists of one or more major soils and some minor soils. Four soil groups are present at IAAAP:

- Mahaska: windblown soil developed under prairie conditions. These soils are dark colored, medium textured with low to moderate permeability, and slopes that range from 0 to 3 percent. They are found mainly in the northern and central parts of the State. These soils are Mollisols.
- Ladoga: a transition between Mahaska and the Clinton Groups, having developed partly under timber vegetation and partly under prairie conditions. These soils are somewhat poorly drained to moderately well drained. These silty soils exist on uplands and slopes range from 1 to 9 percent. They are found mainly in the northwest and central parts of the IAAAP site. These soils are Alfisols.

- Clinton: windblown soil, developed under timber vegetation. This soil is light colored, medium textured, moderately to slowly permeable, and is subject to sheet erosion, except on flatter areas which frequently exhibit poor drainage. The soil composition is primarily loam and silt in association and slopes range from 2 to 4 percent. It is found mainly in the southern and central parts of the State. These soils are Alfisols.
- Webash-Judson: bottomland soils on narrow drainage ways. These soils are generally black silty clay loams which were washed in from upland areas (alluvium), usually from prairie-formed soils. Subsoils are clay with permeability similar to surface soils and slopes that range from 1 to 9 percent. These are found mainly in the southwestern portion of the IAAAP site, along the Skunk River and Long Creek. These soils are Mollisols.

Viable soils are also needed to accomplish the mission at the IAAAP.

Natural Resources and the Military Mission at IAAAP

Open space aids in security and is important for the Plant's demilitarization and testing operations. Open space provides options for citing specific demilitarization sites or test areas. Open space also provides options for the amount and type of buffer area surrounding such sites. Natural resources management is an important aspect of maintaining IAAAP's open space. A large area (7,500 acres) on IAAAP is used for explosive buffers and is leased for agricultural and grazing purposes. The rest of this Appendix will discuss natural resources, the importance of natural resource conservation as well as the role that the IAAAP has had on them.

Vegetation

Vegetation plays an important role at the IAAAP for both the military mission and environmental protection. Vegetation is important in maintaining the Plant's open space as well as providing reduced fire hazard by using specific vegetation. The Army also recognizes the need to minimize damage to vegetation, lest the military environment be compromised, and problems such as erosion make it unsuitable for future use.

Past Military Mission Impacts on Natural Resources

Initial development of the IAAAP with its buildings, roads, railroads, igloos and magazines, and associated infrastructure had a significant impact associated with the military mission on the IAAAP natural resources. Development of these facilities drastically altered farm lands and natural areas and changed the character of the Plant area indefinitely.

Effects of Natural Resources or Their Management on the Military Mission

Environmental constraints at the IAAAP are related to maintaining and/or exceeding relevant compliance requirements for groundwater, storm water, air, endangered species, and other resources. These constraints affect the IAAAP's ability to perform its military mission; however, they significantly benefit the installation's natural communities. By virtue of being a military installation, most resources at the IAAAP have retained values often lost in areas less



protected. Wetlands and the many functions they provide, such as acting as a filtration system and water retention areas, may have been lost without the establishment of the IAAAP. Natural systems are advantageous to and often enhance the military mission.

The agricultural program has the highest degree of impact on the mission of the IAAAP. Foremost, the proper use of grazing, haying, and crop production results in a significant reduction in fire hazard and maintenance cost across the Plant. These areas would normally be mowed or sprayed with herbicide at a significant cost to the government. The agricultural program also provides a significant source of income for the plant and to the Department of Army Agricultural Reimbursable Account.

Negative aspects of natural resources management are relatively minor. These include increased traffic from the agricultural lessees and occasional stray livestock. There have been no mission conflicts with wetlands or threatened or endangered species on the IAAAP. Most wetlands occur well away from production areas, and it is unlikely that conflicts with the mission and wetland conservation will occur over the next five years.

IAAAP is known as a military installation that provides high quality white-tailed deer and turkey hunting. This, along with recreational fishing, has had an affect on the Plant's ability to perform its mission. Security and safety issues are of concern when allowing the Plant community, as well as the general public, to access Plant areas that would otherwise be off-limits. Procedures for allowing access have been developed and implemented. In general, these procedures require extra effort by IAAAP, particularly for hunting. IAAAP has adapted to impacts that management of its natural resources has imposed on the military mission and is proving that they are not mutually exclusive.

Surface Water

The IAAAP property is drained by, from west to east, the Skunk River, Long Creek, Brush Creek, and Spring Creek. The Skunk River watershed at the facility is approximately 2,395 acres in the far southwest, and slopes generally south-southwest toward the Skunk River. There are two large tributaries at the site that discharge into the Skunk River, Long Creek and Brush Creek. However, much of the flow in the Skunk River watershed is from small intermittent tributaries. The Skunk River flows generally east-southeast and discharges into the Mississippi River approximately 6 miles from the eastern facility boundary. This watershed is generally undeveloped.

The Long Creek watershed at the facility is approximately 7,975 acres and comprises the entire western half of the facility, excluding the far southwest portion. Topography in the Long Creek watershed slopes generally to the south and toward Long Creek and its tributaries. Long Creek flows generally east-southeast and is fed by three unnamed perennial tributaries from the north and many small intermittent tributaries. In the eastern portion of this watershed at the confluence of two of the perennial tributaries and Long Creek, Long Creek has been dammed to form George H. Mathes Lake. After discharging from Mathes Lake, Long Creek flows south and discharges into the Skunk River approximately 0.5 mile from the facility boundary. Development in this watershed is scattered and is mostly near the tributaries rather than Long Creek itself.



The Brush Creek watershed at the facility is approximately 5,000 acres and comprises the east-central portion of the facility. Topography in the Brush Creek watershed slopes generally south and toward Brush Creek and its tributaries. Brush Creek, fed by intermittent tributaries, flows generally south and discharges into the Skunk River approximately three miles south of the facility boundary. This watershed is the most developed watershed at the facility, with active production lines along Brush Creek itself or one of its tributaries.

The Spring Creek watershed at the facility is approximately 4,000 acres and comprises the eastern portion of the facility. Topography at the Spring Creek watershed slopes generally south and toward Spring Creek and its tributaries. Spring Creek is fed by at least two perennial tributaries from the north and east and several smaller intermittent tributaries. Spring Creek flows generally south and discharges into the Mississippi River approximately 5 miles from the southern facility boundary.

Viable water resources are also needed to accomplish the mission at the IAAAP.

Climate

Des Moines County has a typical Midwestern climate of hot, humid summers and cold, wet winters (USATHAMA, 1980). According to the National Weather Service, between 1971 and 2000, the average annual temperature in this area was 52°F with typical variations of 15°F (January) to 85°F (July). The prevailing wind is from the south. The average annual precipitation in this area is 37.9 inches, with variation ranging from 23.6 inches in 1988 to 49.9 inches in 1993. During the winter, precipitation frequently occurs as snow, and during the rest of the year it is chiefly rain, often heavy. Approximately 25 percent of precipitation occurs as snow in the winter months, amounting to approximately 8.5 inches of precipitation. The highest rainfall amounts tend to occur between May and July.

Snow-melt during the spring, combined with frozen and oftentimes saturated soil conditions, may reduce infiltration which can result in high runoff and substantial erosion. In addition, severe thunderstorms in the summer can also result in a high volume of precipitation over a short period of time and thus create high runoff volumes.

Cultural Resources

Cultural Resources include, but are not limited to, buildings, structures, prehistoric and historic archeological sites, native sacred sites, and cemeteries. Archeological surveys performed at the IAAAP revealed that 13,836 acres of the Plant have the potential to yield archeological resources. To date, 304 sites have been recorded on IAAAP, yielding 82 prehistoric, 164 historic and 45 combination sites. Precautions are taken in areas that contain cultural resources or could potentially contain cultural resources.



APPENDIX C

ENVIRONMENTAL REGULATIONS

C.1.0 UNDERSTANDING THE ENVIRONMENTAL RESTORATION PROCESS

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are the primary Federal laws governing the investigation and cleanup of contaminated sites. U.S. Department of Defense (DOD) installations typically have multiple contaminated sites regulated by CERCLA. The following section provides a brief summary.

C.1.1 CERCLA

CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, establishes a comprehensive framework within which to identify, investigate, and clean up releases of hazardous substances to the environment. CERCLA authorizes the President to take response actions when a release or the threat of a release is discovered. Through Executive Order 12580, signed in January 1987, the President directed the Secretary of Defense to implement investigation and cleanup measures in consultation with the U.S. Environmental Protection Agency (EPA) for releases of hazardous substances from facilities under the jurisdiction of the Secretary. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes EPA's response policy and lays out the key response steps for implementing CERCLA.

DOD refers to the program for meeting its responsibilities under CERCLA as the Installation Restoration Program, or IRP. The IRP is the major element of DOD's environmental restoration program. All DOD installations are included in this program, whether or not they are on the National Priorities List (NPL).

C.1.2 HOW THE PROCESS WORKS

All environmental restoration sites require assessments and investigations to determine the need for cleanup and the selection, design, and implementation of appropriate remedies to ensure protection of human health and the environment. Activities conducted under the environmental restoration program are referred to by the terms investigation, interim action, design, and cleanup. These terms are defined as follows:

- Preliminary Assessment (PA) – The process of collecting and reviewing available information about a known or suspected waste site or release.
- Site Investigation (SI) – Documented site visits conducted after the Preliminary Assessment to gather specific information to determine whether further investigation is warranted.



- Remedial Investigation (RI) – An RI is an extensive field investigation, Its purpose is to characterize the nature and extent of contamination of a site. The RI also assesses the risks posed by on-site contamination to human health and the environment.
- Feasibility Study (FS) – This study develops and evaluates final cleanup actions based on data collected during the RI.
- Proposed Plan (PP) – A document prepared in conjunction with the FS to provide the public with detailed information about the recommended choice for cleanup action.
- Record of Decision (ROD) – Identifies the remedial alternative chosen for implementation at a Superfund site. The ROD is published by the government after completion of the RI/FS.
- Remedial Design (RD) – An RD involves the actual design of the selected cleanup remedy. It includes development of engineering drawings and specifications for site cleanup.
- Remedial Action (RA) – The RA involves the construction, operation, and implementation of the final cleanup remedy. Long-term RAS require continued monitoring, operation, and maintenance for a number of years.

The documentation for the decisions to perform these steps is outlined in Figure C.1.

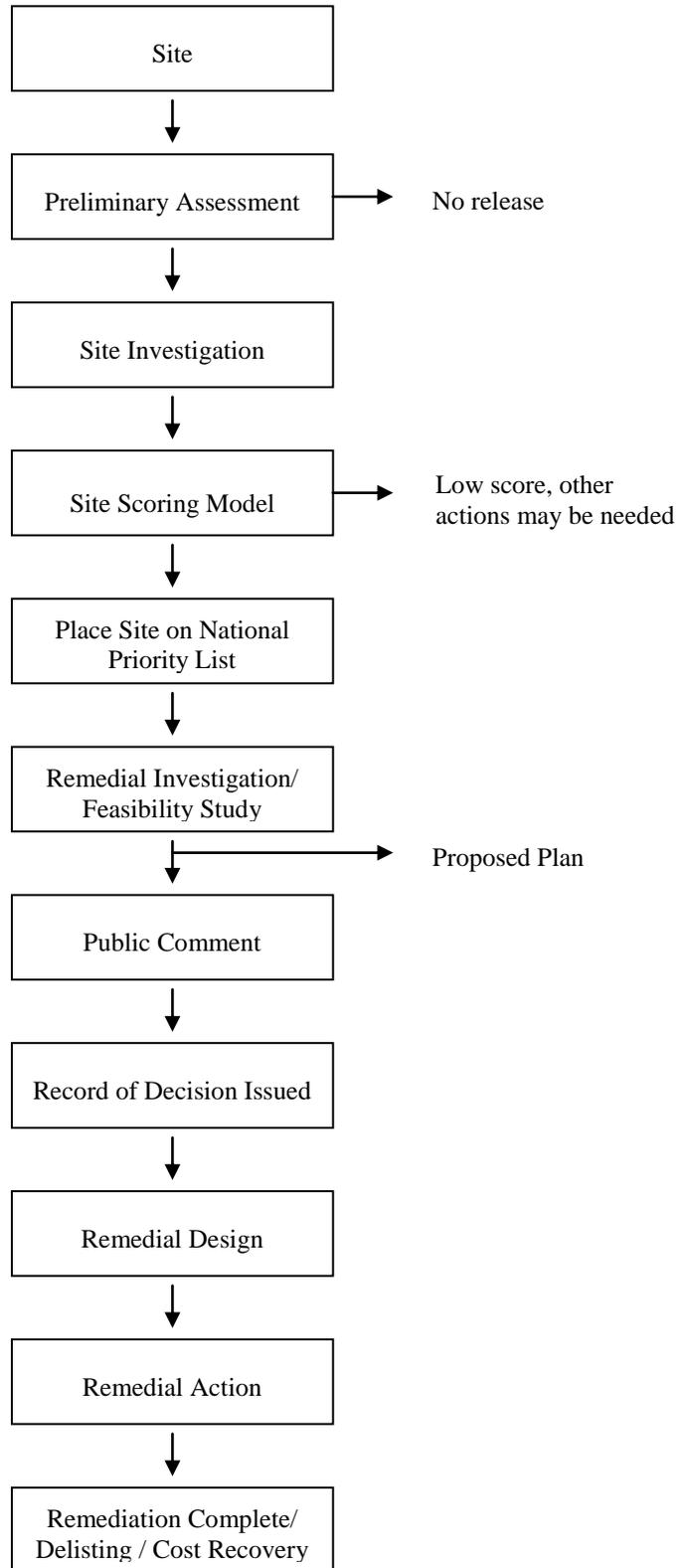


Figure C.1 Superfund Site Remediation Process



APPENDIX D

RESTORATION ADVISORY BOARD FACT SHEET

Iowa Army Ammunition Plant

Quick Facts

- **Organized in August 1997**
- **8 community members**
- **Members are from surrounding towns and counties**
- **4 members from governmental agencies**
- **Meets quarterly**
- **Web Site Address: <http://www.iowaaap-irp.com>**

SITE DESCRIPTION

The Iowa Army Ammunition Plant (IAAAP) is located adjacent to Middletown, Des Moines County, Iowa. The IAAAP is approximately 8 miles west of the largest city in Des Moines County, Burlington, with an estimated population of 25,382 people. The installation consists of 19,011.42 acres. IAAAP is an active U.S. Joint Munitions Command facility operated by the civilian contractor American Ordnance, LLC. IAAAP's current mission is to load, assemble and pack (LAP) ammunition items, including projectiles, mortar rounds, warheads, demolition charges, and munitions components such as fuzes, primers, and boosters. IAAAP was founded in 1941, and has undergone modernization and expansion. Production of supplies for World War II began in September 1941 and ended in August 1945. From 1946 to 1951, the IAAAP was operated by the government to produce ammonium nitrate and store munitions. Ammunition production resumed in 1949 and has continued to the present. The former Atomic Energy Commission occupied facilities on the site from 1947 to 1975.

RAB MISSION STATEMENT

The RAB enables the local community and representatives of Government agencies to meet and exchange information about the IAAAP's environmental cleanup program. These participants then have an opportunity to review progress, participate in dialogue, address concerns, and make recommendations to the Commander of the Iowa AAP.

REGULATOR PARTICIPATION

FEDERAL:

- U.S. Environmental Protection Agency, Region VII, Federal Facilities/Special Emphasis Branch, Superfund Division
- U.S. Fish and Wildlife Service, Region 3, Rock Island District

STATE:

- Iowa Department of Natural Resources



COMMAND ORGANIZATION

MAJOR COMMAND: U.S. Army Materiel Command

MAJOR SUBORDINATE COMMAND: U.S. Army Joint Munitions Command,
Rock Island, IL

INSTALLATION: Iowa AAP Installation Stewardship Division

NATIONAL PRIORITIES LIST

The installation was placed on the National Priorities List (NPL) in August 1990 due to surface water contaminated with explosives leaving the installation boundary. IAAAP's Hazard Ranking Score (HRS) is 29.73. A Federal Facilities Agreement (FFA) signed by the U.S. Environmental Protection Agency (USEPA) Region VII and the U.S. Army became effective in December of 1990. This agreement defines objectives, responsibilities, procedural, and schedule frameworks for implementing the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP) at IAAAP.

INSTALLATION RESTORATION PROGRAM

The Installation Restoration Program (IRP) effort is to identify, investigate and mitigate past hazardous waste disposal practices that may have contributed to the release of pollutants into the environment at Army installations/facilities. The IRP cleanup efforts are to be accomplished under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 requirements, and if applicable, consistent with the substantive requirements of the Resource Conservation and Recovery Act (RCRA) corrective action process.

Our program management goals are:

- Identify, investigate, and remediate/cleanup contamination associated with past industrial activities.
- Protect human health and the environment.
- Work with environmental regulators and stakeholders in achieving the above goals, and include members of the surrounding communities in the IRP effort at the IAAAP.

IRP CLEANUP ACCOMPLISHMENTS

Various Studies covering groundwater and ecological risks continue today as the Army prepares to initiate the groundwater portion of the clean-up effort. Soil removals that have been accomplished so far are:

- Line 6
- Former Pesticide Disposal Pit
- Various wastewater sumps
- Former Line 1 Impoundment Area



- Line 800 Pinkwater Lagoon
- West Burn Pads
- East Burn Pads
- North Burn Pads
- North Burn Pads Landfill
- Former Fire Training Pit
- Lines 5A/5B
- Line 9
- Line 8
- Lines 4A/4B
- Roundhouse
- Former Fuel Station USTs
- Demo Area/Deactivation Furnace
- Line 2
- Line 3
- Line 3A
- Line 800
- Central Test Area
- Possible Demolition Site
- Incendiary Disposal Area

Two Army Records of Decision (ROD) were signed that cover the removal, placement, and treatment of contaminated soils at the IAAAP. One Army ROD was signed covering off post groundwater contamination.

MILITARY MUNITIONS RESPONSE PROGRAM

The Military Munitions Response Program (MMRP) exists to identify, investigate, and take removal or response actions to address Munitions and Explosives of Concern (MEC), such as unexploded ordnance, discarded military munitions, munitions debris, or the chemical residues of munitions. The MMRP cleanup efforts are to be accomplished under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 requirements and, if applicable, consistent with the substantive requirements of the Resource Conservation and Recovery Act (RCRA) corrective action process.

MMRP CLEANUP ACCOMPLISHMENTS

MMRP is in the initial stages of investigatory work at the Iowa AAP.

RAB ACCOMPLISHMENTS

The RAB has been very active since its inception by meeting approximately every other month to receive training and provide input to the environmental restoration process. Some of their more notable accomplishments are:

- Presenting Earth Day Displays



- Assisting with Armed Forces Day
- Hosting public tours at the IAAAP
- Provide comment and input for Army Records of Decision
- Provide comment and advice for the Army's selection of soil treatment
- Provide comment and advice to the Army and the EPA regarding off post groundwater contamination.
- Help establish clean up priorities
- Worked with the public, legislative representatives, and numerous governmental agencies to help address Congressional inquiries and concerns.

ADMINISTRATIVE RECORD

www.iaaap.adminrecord.com

INFORMATION REPOSITORY

Iowa Army Ammunition Plant
17571 Highway 79
Middletown, IA 52638-5000
Phone: 319-753-7130

FOR MORE INFORMATION

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APPENDIX E

INFORMATION RESOURCES

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Des Moines, IA 50319
(Iowa House of Representatives)

Tom Sands
Iowa Legislature
House District 87
2nd Floor, State Capitol
Des Moines, IA 50319



APPENDIX F

INFORMATION REPOSITORY AND ADMINISTRATIVE RECORD

INFORMATION REPOSITORY

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ADMINISTRATIVE RECORD

www.iaaap.adminrecord.com



APPENDIX G

RECOMMENDED LOCATIONS FOR PUBLIC MEETINGS

Burlington /West Burlington Chamber of Commerce
610 North 4th Street
Burlington, IA 52601

Comfort Suites
1780 Stonegate Center Drive
Burlington, IA 52601

PZAZZ Motor Inn Resort Complex
3001 Winegard Drive
Burlington, IA 52601

RESPONSE TO EPA COMMENTS
8 November 2010

Comment Response Matrix	
Draft IAAAP Community Relation Plan Update (March 2009)	
Commenter: Sandeep Mehta, EPA Region 7	
Comments dated: November 8, 2010	
Comment	Response
1. Could not confirm if MMRP is included in the CRP. If not, please do so.	MMRP is included. The following text is taken directly from the Scope section: This update applies to the Defense Environmental Restoration Program (DERP) activities at the IAAAP. DERP activities include actions taken under the IRP and the Military Munitions Response Program (MMRP).
2. How would you reference FUSRAP since they plan to have their own CRP?	FUSRAP was not referenced as they are not part of the Army's FFA. However, text will be added (page 2-7) to define the FUSRAP scope and the overlap between the IRP and FUSRAP at Line 1 and the West Bur Pad Area (South of the Road). See response to Comment #5 for specific additional language.
3. On page 5-2, strategy 3: Did the strategies and objectives meet the current needs of the community? If yes, how did you ensure doing so? If not, what additional efforts are required and when/how does the army intend to do so?	Yes. As indicated in the text describing Objective 3A (page 5-2), RAB meetings are open to the public and there are several opportunities for public comment during each meeting. Comments are often shared in these meetings and follow-up actions are discussed and assigned.
4. On page 5-6, Army indicates that the community group needs to come up with 20% of their own matching funds. Where and how was this % set up and is there any re-think required from the Army?	The program described on page 5-6 is the EPA-administered Technical Assistance Grants (TAGs) Program. The Program, and the 20% matching funds specifically, is described in 40 CFR 35, Subpart M, paragraph 35.4050. The Army is just informing the public about the existence of the program.
5. Page D-3 has MMRP mentioned. Is FUSRAP part of the Army site program or RAB? How does FUSRAP get integrated into the RAB and still meets their own RODs, etc and their own structure? Please clarify	The only part of FUSRAP actions are those for the WBPA(South) and the Line 1 activities. That is the only part of FUSRAP activities that the Army is involved with. The following text, adapted from the FUSRAP Community Involvement Plan (FUSRAP, 2011) will be inserted (page 2-7) in the CRP Update: The general responsibilities of the Formerly Utilized Sites Remedial Action Program (FUSRAP) at IAAAP are to ensure that the environmental impacts associated with past Atomic energy Commission (AEC) activities are thoroughly investigated and that appropriate action is taken to protect public health, welfare, and the environment. Following the requirements set by the FUSRAP

Comment Response Matrix	
Draft IAAAP Community Relation Plan Update (March 2009)	
Commenter: Sandeep Mehta, EPA Region 7	
Comments dated: November 8, 2010	
Comment	Response
	<p>FFA; FUSRAP will establish a framework for procedures and will set a schedule for the cleanup process. FUSRAP is generally responsible for all contaminants, chemical or radiological, in former AEC areas, unless the chemical contamination is or has already been addressed by the Army. The FUSRAP FFA, however, explicitly excludes groundwater and surface water contamination from the scope of the FUSRAP response noting that groundwater and surface water will be addressed pursuant to the Army FFA.</p> <p>In 2008, it was determined that the soil in two of the FUSRAP areas (Line 1 and West Burn Pads South of the Road) was specifically covered in the existing Army Records of Decision (RODs). As a result, Line 1 soil and the West Burn Pads Area South of the Road are being remediated by FUSRAP, but such remediation is being conducted under the authority of the Army RODs.</p>
6. Please run spell check and grammar check for global document.	Done.