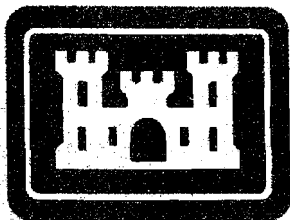


**Per the Federal Facility Agreement for Iowa Army Ammunition Plant, Article X.B.1, the attached document is the final version of the submitted document.**



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102507 \ IWA070022

# US Army Corps of Engineers

Toxic and Hazardous  
Materials Agency

## COMMUNITY RELATIONS PLAN FOR IOWA ARMY AMMUNITION PLANT (Public Involvement and Response Plan)

Prepared by:

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May 1991

Distribution Unlimited. Requests for copies must be referred to:  
Commander, Iowa Army Ammunition Plant, IA 52638

Prepared for:

U.S. ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY  
Public Affairs Office  
Aberdeen Proving Ground, MD 21010-5401

FINAL  
Contract No. DAC 45-87-C-0115  
Call Order No. 0012-88  
ESE No. 3-90-9003-3170-3170

REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS NONE	
2a. SECURITY CLASSIFICATION AUTHORITY NA		3. DISTRIBUTION/AVAILABILITY OF REPORT Distribution limited to U.S. Gov. Agen. only for protection of privileged info. Requests for this doc. must be referred to: Commander, Iowa Army Ammunition Plant, IA 52638.	
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE NA		4. PERFORMING ORGANIZATION REPORT NUMBER(S)	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		5. MONITORING ORGANIZATION REPORT NUMBER(S) CETHA-PA-CR-91005	
6a. NAME OF PERFORMING ORGANIZATION Environmental Science and Engineering, Inc.	6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION U.S. Army Toxic and Hazardous Materials Agency	
6c. ADDRESS (City, State, and ZIP Code) P.O. Box 1703 Gainesville, Florida 32602		7b. ADDRESS (City, State, and ZIP Code) ATTN: CETHA-PA Aberdeen Proving Ground, MD 21010-5401	
8a. NAME OF FUNDING/SPONSORING ORGANIZATION U.S. Army Toxic and Hazardous Materials Agency	8b. OFFICE SYMBOL (if applicable) CETHA-PA	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DAAA15-85-D-0016	
8c. ADDRESS (City, State, and ZIP Code) ATTN: CETHA-PA Aberdeen Proving Ground, MD 21010-5401		10. SOURCE OF FUNDING NUMBERS	
		PROGRAM ELEMENT NO.	PROJECT NO.
		TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Public Involvement and Response Plan for Iowa Army Ammunition Plant			
12. PERSONAL AUTHOR(S) William K. Boe, Evelyn Knauft and Norma Miller			
13a. TYPE OF REPORT DRAFT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) May 1991	15. PAGE COUNT 135
16. SUPPLEMENTARY NOTATION			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	
		Public involvement and response plan; public involvement; public affairs office; communication.	
19. ABSTRACT (Continue on reverse if necessary and identify by block number) A Public Involvement and Response Plan was developed to determine the level of community concern and interest in the Installation Restoration Program at Iowa Army Ammunition Plant. This document presents the results of community interviews conducted in April 1990, and recommends communication techniques to keep the public informed of the study progress, and ways to involve the public in the final decision-making process.			
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a. NAME OF RESPONSIBLE INDIVIDUAL Lori E. Simmers		22b. TELEPHONE (Include Area Code) (301) 671-2556	22c. OFFICE SYMBOL CETHA-PA

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LIST OF ACRONYMS

AEC	U.S. Atomic Energy Commission
AMC	U.S. Army Materiel Command
AMCCOM	U.S. Army Armament, Munitions and Chemical Command
AMCPA	U.S. Army Materiel Command, Chief of Public Affairs
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act CMS Corrective Measures Study
DNT	2,4-dinitrotoluene
DOD	Department of Defense
EA	Endangerment Assessment
EP	Extraction Procedure
EPA	U.S. Environmental Protection Agency
ERDA	Energy Research and Development Administration
ESE	Environmental Science & Engineering, Inc.
FOIA	Freedom of Information Act
FS	Feasibility Study
ft	foot
GOCO	Government-Owned, Contractor-Operated
HMX	High Melting Explosive (cyclotetramethylenetetranitramine)
HQDA	Headquarters, Department of the Army
IA	Installation Assessment
IAAP	Iowa Army Ammunition Plant
IDNR	Iowa Department of Natural Resources
IRM	Interim Remedial Measure

LIST OF ACRONYMS  
(Continued, Page 2 of 3)

IRP	Installation Restoration Program
LAP	Load, Assemble, and Pack
lb	pound
Mason & Hanger	Mason & Hanger-Silas Mason Company
mm	millimeter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan NPL National Priorities List
OCLL	Office of the Chief of Legislative Liaison, Department of the Army OCPA Office of the Chief of Public Affairs, Department of the Army OSWER Office of Solid Waste and Emergency Response
ppm	parts per million
PAO	Public Affairs Officer
PIRP	Public Involvement and Response Plan
RCRA	Resource Conservation and Recovery Act
RDX	cyclotrimethylenetrinitramine
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SCC	Southeastern Community College



LIST OF ACRONYMS  
(Continued, Page 3 of 3)

SWMU	Solid Waste Management Unit
TAG	Technical Assistance Grant
TNB	1,3,5-trinitrobenzene
TNT	2,4,6-trinitrotoluene
USACE	U. S. Army Corps of Engineers
USAEHA	U.S. Army Environmental Hygiene Agency
USAMBRDL	U.S. Army Medical Bioengineering Research and Development Laboratory
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
WWII	World War II

## 1.0 INTRODUCTION AND BACKGROUND

The Public Involvement and Response Plan (PIRP) for Iowa Army Ammunition Plant (IAAP) in Middletown, IA, sets forth a site-specific program to establish a communication and information exchange between Army staff, the civilian work force, and ammunition plant workers; installation residents; Army agencies; various federal, state, county, and community agencies; and the public. Effective communication and timely information exchange are essential for maintaining community understanding and support of the IAAP mission and for implementing a successful PIRP in conjunction with the Installation Restoration Program (IRP). The plan requires the involvement of citizens from the area communities and representatives from federal, state, and local agencies who are active in policy and decisionmaking processes. It is the responsibility of the U.S. Environmental Protection Agency (EPA) and the Iowa Department of Natural Resources (IDNR) to oversee the IAAP PIRP activities and to ensure the Army complies with the federal and state laws.

Section 1.0 of this PIRP presents the history and background of IAAP, and Section 2.0 presents information about the community surrounding IAAP. The details of the public involvement program are presented in Section 3.0. The following appendices are included:

- Appendix A--Site Maps
- Appendix B--Fact Sheets, News Releases, and Information Papers
- Appendix C--Representative Newspaper Articles
- Appendix D--Media List
- Appendix E--Program Points of Contact
- Appendix F--Schedule for Public Involvement Activities at IAAP
- Appendix G--Locations of Information Repositories
- Appendix H--Locations for Community Meetings
- Appendix I--Elected Public Officials
- Appendix J--Civic and Community Groups

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Appendix K--Mailing List  
Appendix L--Community Interview Participants

The Points of Contact for PIRP-related information are the IAAP Public Affairs Officer (PAO) -(319) 753-7600- or the IAAP Industrial Engineer -(319) 753-7130-.

The goal of this PIRP is to inform and to promote two-way communication among on-post workers and residents and citizens from surrounding communities concerning environmental studies being conducted at IAAP as a part of the Army's IRP. The PIRP is flexible, allowing implementation of program activities for additional investigative and remedial work that may result from the IRP at IAAP. The primary objectives of the PIRP are to keep workers and residents at IAAP and local residents and surrounding areas knowledgeable of planned and ongoing environmental activities at IAAP, to provide a means whereby citizens and agencies can interact with IAAP and supporting agencies, and to assist in resolving issues of public interest and concern. The specific purposes of the IAAP PIRP are to:

1. Provide for the exchange of information regarding the IAAP groundwater and soils contamination assessments and remedial actions;
2. Solicit input, comments, and active involvement from the public, elected and civic leaders, and concerned agencies regarding the plan to ensure local concerns are addressed;
3. Provide a centralized point of contact for the public and agencies to express concerns, and to distribute information regarding the IAAP PIRP.

This plan outlines public involvement objectives, prescribes specific policies and procedures governing public involvement activities related to environmental and remedial actions, assigns responsibility for

planning and implementing program functions, and presents suggested communication activities and techniques to be used in meeting PIRP goals. The PIRP will be updated or amended on an as-needed basis throughout the environmental investigation. A community survey will be conducted again following the final remedial action decision.

### 1.1 SITE LOCATION

IAAP is a government-owned, contractor-operated (GOCO) military industrial installation under the jurisdiction of the U.S. Army Armament, Munitions and Chemical Command (AMCCOM). The plant is located on U.S. Route 34 in Middletown, IA, and is approximately 6 miles west of Burlington, IA, in the southeastern corner of the state. (See Appendix A, Figure A-1) The facility, currently operated by the Mason & Hanger-Silas Mason Company, Inc. (Mason & Hanger) of Lexington, KY, is situated on 19,127 acres adjacent to Middletown's southwestern boundary.

The closest airports to IAAP are the Burlington Municipal Airport, south of the city, and the Quad City Airport at Moline, IL, approximately 60 miles northeast of the plant.

### 1.2 SITE HISTORY

IAAP, a GOCO industrial installation, produces ammunition for all branches of the U.S. Armed Forces and for foreign military sales to U.S. allies. IAAP operates under the direction of Headquarters, AMCCOM, which is located at Rock Island, IL. Technical assistance is provided to IAAP by Headquarters, U.S. Army Armament Research and Development Center, which is located at Picatinny Arsenal, NJ, and by Headquarters, Missile Command, which is located at Redstone Arsenal, AL.

IAAP was established in July 1941 as the Iowa Ordnance Plant. The plant mission was to load, assemble, and pack 75- and 155-millimeter (mm) artillery shells and 100- to 1,000-pound (lb) aerial bombs. The original cost of the plant was \$30 million, not including Lines 3A, 7, and 9, which were built later. Loading operations began in September 1941, and

high-level production of bombs and projectiles continued until after September 2, 1945 (V-J Day). At that point, high-level production ceased.

The principal mission of IAAP has been Load, Assemble, and Pack (LAP) operations involving a variety of conventional ammunition and fusing systems. LAP lines were operated at high production rates from 1941 to 1945 and from 1949 to 1952. Activities during the interim period from 1945 to 1949 consisted mainly of completing work in progress, reconditioning, demilitarization, surveillance, and long-term storage. Varying rates of munitions production have occurred since 1952, including renewed production in 1961 during the years of the Vietnam Conflict. A portion of the installation, Line 1 facilities, was modified and operated by the U.S. Atomic Energy Commission (AEC) (later the Energy Research and Development Administration (ERDA) from 1947 to 1975. AEC added many new facilities within Line 1.

During peak World War II (WWII) activities, over 12,000 workers were employed at the plant. By September 1943, 13.7 million shells and bombs containing 229 million lb of high explosives had been assembled.

Following WWII, the plant was converted from a contractor-operated facility to a government-staffed installation. From 1946 to 1948, when 227 employees staffed the plant, operations were limited to long-term storage; surveillance activities; and the renovation, demilitarization, and reconditioning of ammunition. Ammunition production was resumed at the beginning of the Korean Conflict. By January 1, 1951, an expanded production schedule had created the need for 1,245 government employees at the facility.

Silas Mason Company (now Mason & Hanger) became the operating contractor in March 1951. By June 1952, employment totaled 5,425 contractor and 260

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government personnel. Contractor employment eventually declined with the end of the Korean Conflict, dropping to 1,860 by December 1957.

The Vietnam Conflict increased employment and production at IAAP. By the end of 1968, 7,200 contractor and 155 government personnel were employed at the plant. During this period, production included artillery projectiles; hand grenades; demolition blocks; aerial mines; mortar shells; and such components as primers, boosters, detonators, and fuses. IAAP continued to produce similar munitions products throughout the 1970s.

By 1982, contractor employment had dropped to 857. Currently, there are approximately 1,300 contractor employees and 44 government employees at IAAP.

IAAP possesses extensive ammunition manufacturing capabilities with special emphasis on cast loading of large caliber artillery projectiles, guided missile warhead loading, press loading of munitions, and the assembly of specialized munitions involving the integration of electronic components with precision explosive components.

End items currently being produced at IAAP in May 1990 included detonators, demolition blocks, cratering kits, 155-mm rocket-assisted artillery projectiles, 8-inch rocket-assisted projectiles, and 120-mm tank rounds. Rocket warheads are produced for the Patriot, Copperhead, Hellfire, Stinger, Chaparral, Hawk, TOW I, and TOW II rockets. Additionally, components are manufactured for the RAAM 155-mm remote anti-armor mine, GATOR antitank and antipersonnel mines, and the Ground Emplaced Mine Scattering System.

### 1.3 ENVIRONMENTAL STUDIES

In support of the installation's mission, thirteen production areas, or lines, load munitions at IAAP (see Appendix A, Figure A-2). Several of these areas are idle and/or no longer in use and have been deactivated and dismantled. Some of the solid wastes generated by these production areas consist of explosive processing sludges, spent carbon from the treatment of explosive processing wastewater, and sludges from lead-based initiating compound wastewater. These solid wastes are treated onsite using current treatment methods regulated under the Resource Conservation and Recovery Act (RCRA) program and then disposed in a hazardous waste landfill approved by the U.S. Environmental Protection Agency (EPA). Ashes from incineration and open burning are disposed of offsite by commercial hazardous waste handling firms.

Since 1980, several environmental studies have been conducted at IAAP as a part of the IRP. Some of these studies indicate that munitions production and renovation operations at IAAP that were state-of-the-art at the time have caused wastewaters containing explosives and explosives byproducts to be discharged to the installation's surface waters, including holding ponds and impoundments. Production and renovation operations at IAAP are now conducted using environmentally acceptable methods of treatment. Other potential sources of contamination are the result of other disposal operations, including burning and detonation of explosives. Potential contaminants in the soil, surface water, and groundwater consist primarily of 2,4,6-trinitrotoluene (TNT), cyclotrimethylenetrinitramine (RDX), and related compounds used as precursors during the manufacturing processes or resulting from degradation of the primary explosives.

A remedial investigation (RI) to determine contamination levels and off-post migration potential was conducted from February 1981 to October

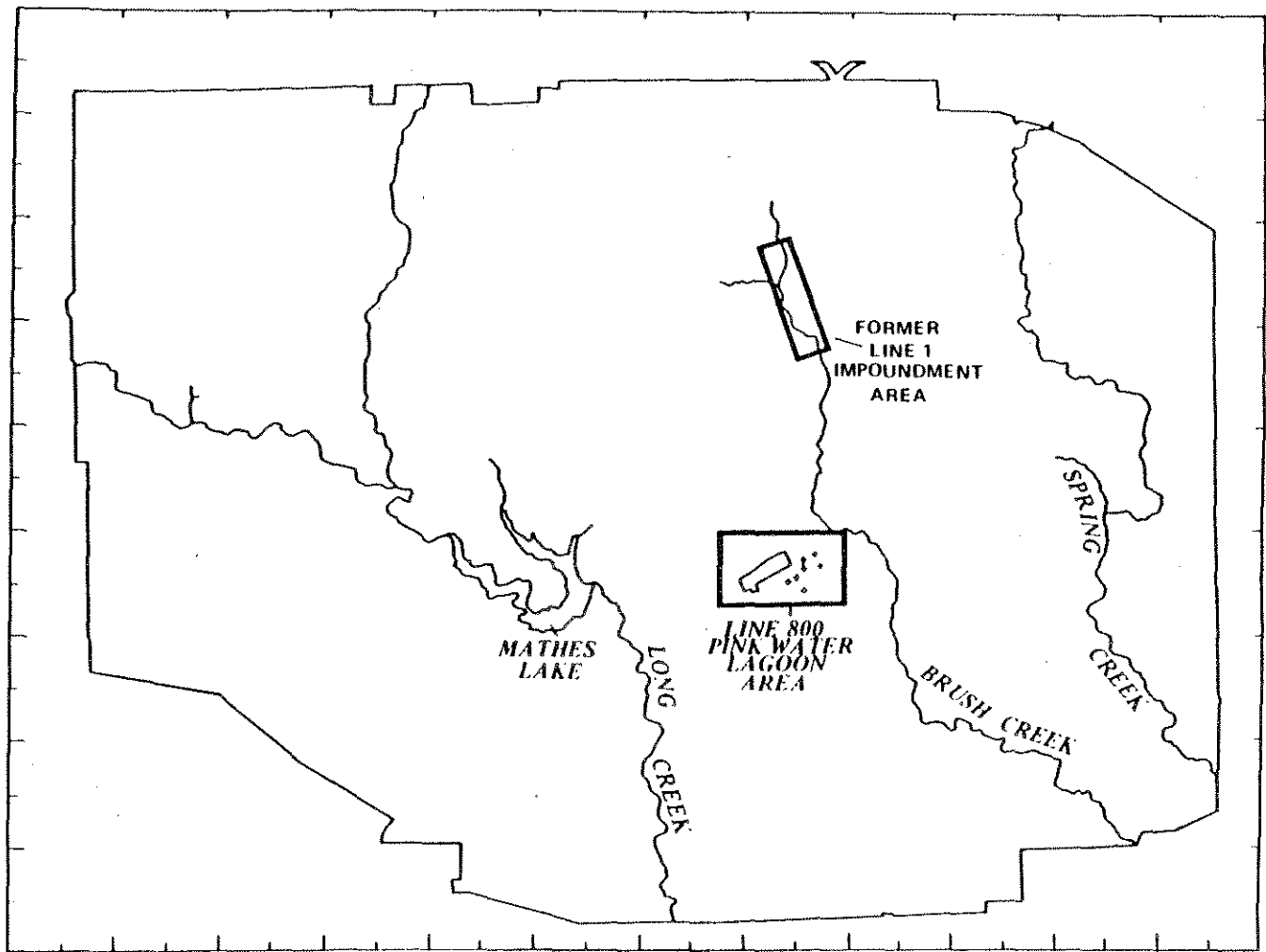
1982. The RI revealed RDX surface water contamination migration in Brush and Spring Creeks, and localized RDX groundwater contamination was detected in the Pink Water Lagoon/Line 800 Area (see Figure 1.3-1). Potential sources of RDX contamination in Brush Creek include permitted wastewater discharges into Brush Creek, discharge of contaminated groundwater associated with the Former Line 1 Impoundment or Line 800 Pink Water Lagoon, or sediments from the Former Line 1 Impoundment. Data from later studies did not support the hypothesis that contaminated groundwater from the Line 800 Pink Water Lagoon could be discharging into Brush Creek because the plume from this site has not reached Brush Creek. Significant levels of RDX and 2,4,6-TNT were present in groundwater at the Line 800 Pink Water Lagoon. Surface water in the lagoon exhibited fewer contaminants at lower concentrations.

The RI also alluded to the need for additional studies to assess the horizontal and vertical extent of groundwater contamination at the Line 800 Pink Water Lagoon, identification of the principal source of contamination for Brush Creek, and delineation of the extent of contaminated sediment at the Former Line 1 Impoundment. Additional studies, such as the Feasibility Study (FS) and the Endangerment Assessment (EA) are discussed later in this section.

A follow-on RI of the Former Line 1 Impoundment and Line 800 Pink Water Lagoon was conducted between September 1982 and August 1984. No explosives contamination was found in surface water or groundwater at the IAAP boundary near Spring Creek. However, RDX groundwater contamination levels exceeded human health criteria at the IAAP boundary near Brush Creek.

The RI study could not conclusively prove that explosives contamination in the Pink Water Lagoon was localized. This study concluded that





**Figure 1.3-1**  
**FORMER LINE 1 IMPOUNDMENT AND LINE 800**  
**PINK WATER LAGOON AREAS**

SOURCE: DAMES & MOORE, 1989.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

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further work (discussed later in this section) would be necessary to define the impact of current surface water discharges on contamination within the Brush Creek drainage system. Continued monitoring of the wells at the Line 800 Pink Water Lagoon was recommended to confirm the possibility of groundwater contaminant migration at this area.

In response to a congressional inquiry concerning potential contamination of an offsite domestic drinking water well, the U.S. Army Environmental Hygiene Agency (USAEHA) conducted an investigation of groundwater contamination at IAAP from March through May 1985. The scope of this investigation primarily involved collection and analysis of groundwater samples from 7 onsite wells in the vicinities of the 2 study sites and from 31 offsite residential wells. This investigation concluded that contaminant sources at IAAP were not affecting offsite wells. USAEHA recommended future monitoring of all perimeter wells and further investigation of known sources of contamination at IAAP.

Studies performed by Dames & Moore from September to October 1985 confirmed the presence of RDX and HMX contamination in shallow groundwater at the Former Line 1 Impoundment. RDX was detected in surface water in Brush Creek downstream from the Former Line 1 Impoundment. Low levels of copper, selenium, and silver were detected in surface water samples from Brush Creek. A broader range of explosives -RDX; 2,4-dinitrotoluene (DNT); 2,6-DNT; 1,3,5-trinitrobenzene (TNB); and 2,4,6-TNT)- were detected in the surface water at the Line 800 Pink Water Lagoon. Copper was also detected.

An Endangerment Assessment (EA) to assess present and future risks at the Former Line 1 Impoundment and Line 800 Pink Water Lagoon Areas was conducted by Dames & Moore from September 1985 to July 1989. Estimates were made of human exposure to contaminants of concern by current and

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future pathways that included consumption of deer that drink contaminated water and feed on vegetation growing in areas of contaminated soil, dust inhalation by IAAP maintenance personnel, consumption of beef and dairy products from cattle that drink water from Brush Creek, dermal contact with surface water and sediments by children with access to Brush Creek south of the IAAP boundary, and consumption of groundwater from potential future shallow offsite wells along Brush Creek.

In conjunction with the EA, a feasibility study (FS) to evaluate and recommend remedial action alternatives for the Former Line 1 Impoundment and Line 800 Pink Water Lagoon Areas was conducted by Dames and Moore from September 1985 to August 1989. Based on RDX and DNT contamination levels found at the two areas, remedial action criteria were established to meet EPA's target cancer risk levels of  $10^{-4}$ ,  $10^{-5}$ , and  $10^{-6}$ . These risk levels were selected as a basis for both the EA and the FS, because EPA has historically considered a risk range of  $10^{-4}$  to  $10^{-6}$  in mandating regulatory actions for site cleanup.

Separate analyses of remedial action alternatives were conducted for each of those three risk levels, as appropriate. After identification and screening, remedial action alternatives for each site were identified based on effectiveness, implementability, and cost criteria. Following regulatory review, these alternatives will be presented to the public before a final Record of Decision (ROD) is made.

In April 1988 a Federal Facilities Compliance Agreement defining responsibility for managing RCRA units was signed by IAAP and EPA Region VII.

An assessment to evaluate contamination at the IAAP service station site (Petroleum Leak/Spill Area) was conducted by Dames & Moore from June 1989 to March 1990. Results from groundwater, surface water, soil, and sediment samples revealed localized hydrocarbon and aromatic contamination

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in the soil and shallow groundwater. Semiannual monitoring of the ten wells is to be conducted by the installation for two years.

IAAP was designated as a proposed National Priorities List (NPL) site in July 1989. In August 1990, IAAP was listed as a final NPL site.

In 1989, IAAP applied for a 10-year hazardous waste management permit (RCRA Part B Permit) to operate 5 container storage units, 38 treatment tanks, and 2 incinerators. The operation of the hazardous waste management units is solely for wastes generated at IAAP, such as solvents, water containing heavy metals, waste explosives, and wastewater treatment sludges. A public meeting was held by EPA Region VII and IAAP in conjunction with the permit application. EPA approved the permit for IAAP on November 8, 1989.

In May 1990, drafting of an Interagency Agreement (IAG) between the Army and EPA was initiated. During the summer of 1990, negotiation sessions were conducted to finalize the terms and conditions of the IAG. Final signing of the IAG was completed in September 1990. The IAG became effective on December 10, 1990, after completion of the mandatory public review and comment period.

Several site closure operations have been completed at IAAP. Closure of the Inert Landfill Trench 5, conducted by the U.S. Army Corps of Engineers (USACE), Huntsville Division, was completed in September 1990. A clay cap covering the trench was installed to provide protection from surface water seepage at the site, thus minimizing the migration of contamination into shallow groundwater. Closure of the Line 6 Gravel Filter Bed, also conducted by USACE, Huntsville, was completed in August 1990. Soil near the filter beds and drainage trenches was excavated and transferred to an approved landfill, thus removing the confirmed source of contamination.

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Additional environmental activities to support the IAG include the December 26, 1990, award of a contract to perform a comprehensive Remedial Investigation and Feasibility Study (RI/FS). All IAAP sites will be initially considered under this contract. The contractor, Jaycor from Vienna, VA, is responsible for conducting the RI/FS within the schedule mandated by the IAG. Completion of the entire RI/FS process is anticipated in 1995.

## 2.0 COMMUNITY BACKGROUND

### 2.1 COMMUNITY DEMOGRAPHICS AND EMPLOYMENT

IAAP 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 6 miles west of Burlington, the county's most populated city, located on the west bank of the Mississippi River. (See Appendix A, Figure A-1)

IAAP is located on U.S. Highway 34, which runs east-west through Iowa from Illinois to Nebraska. U.S. Route 61, which runs north-south on the western shore of the Mississippi River, is accessible 6 miles to the east in Burlington. The 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 Burlington Airport, southwest of the city, provides freight and passenger services. Burlington Trailways and Hawkeye Express provide bus transportation throughout the region. Rail services are provided by Northern Burlington Railroad and AMTRAK.

Des Moines County had a 1985 (most recent available) population of 44,600. The current population of Burlington is estimated by the Burlington/West Burlington Chamber of Commerce to be approximately 29,500 and the Middletown population to be approximately 500. Additional communities near IAAP include, to the east, West Burlington (1980 (most recent info. available) population of 3,371); to the northeast, Mediapolis (1980 (most recent info. available) population, 1,685); to the northwest, Danville (1980 (most recent info. available) population 994) and New London (1990 (most recent info. available) population 2,043); and to the south, the small unincorporated

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communitites of Augusta and Wever. Middletown, Danville, Wever, and Augusta are primarily rural communities, with IAAP being the largest single source of employment. Incorporated towns are governed by council/manager or council/mayor structure.

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

The largest single source of personal income (over 28 percent or \$167 million) in Des Moines County in 1987 (most recent info. available) was derived from manufacturing employment. The second largest source is income derived from dividends, interest, and rent (over 19 percent or \$118 million). The third largest source of income derived from transfer payments (social security, veterans' and retirement benefits, entitlement programs, etc.), which constituted 13 percent, just under \$80 million. Other income sources include business and personal services, 11 percent; retail trade, 7 percent; government employment, 6 percent; transportation and public utilities, 5 percent; wholesale trade, 3 percent; construction, 3 percent; farm production, 3 percent; finance, insurance, and real estate, 2 percent. Less than 1 percent of county personal income is derived from agricultural services, fishing, and mining.

Des Moines County's industrial base centers in diversified manufacturing that includes production of antenna systems, batteries, cattle and hog

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feeders, safety paper, chemicals, cleansing compounds, desks, gypsum, electronic instruments and components, furniture, medium voltage switch gear, 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 and dairy cattle, hogs, and poultry are also raised on area farms.

As of April 1990, IAAP, the largest employer in Des Moines County, employed approximately 1,300 workers. Major regional industries in 1990 identified by the Burlington Area Development Corporation included:

Over 1,000 Employees

Mason & Hanger (Iowa Army  
Ammunition Plant)  
JI Case

500 to 1,000 Employees

Burlington Medical Center  
General Electric  
Burlington Community School  
Iowa Industries, Inc.

100 to 200 Employees

Burlington Basket Company  
Wal-Mart Discount Store  
Chittenden & Eastman  
Company  
K-Mart Discount Store  
Aldi Warehouse

200 to 500 Employees

Winegard Company  
City of Burlington  
Exide Corporation  
LaMont Limited  
Hy-Vee Stores  
Antennacraft Company  
Des Moines County  
Southeastern Community  
College  
Midwest Biscuit Company  
Burlington Northern  
Railroad  
U.S. Gypsum  
Murray-Turbomachinery Corp.  
Pzazz! Motor Inn  
U.S. Post Office  
"The Hawk-Eye"  
Hope Haven Development  
Center



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Des Moines County is served by numerous newspapers, including dailies such as the "Des Moines Register" and "Burlington Hawk-Eye" and weeklies such as the "Des Moines County News" and the "Shoppers Spree". Burlington radio stations include KBUR-AM, KGRS-FM, KDWD-FM, and KCPS-AM. KJMH-TV, Channel 26, in Burlington is the first television station to serve specifically the Burlington, Ft. Madison, Mt. Pleasant, and Western Illinois markets. Regional television viewers have access to Centel Cable TV, which provides 30 channels including network stations in the Quad City area of Davenport, Rock Island, and Moline.

Medical facilities include the 396-bed Burlington Medical Center, four intermediate care facilities (nursing homes), and the Mental Health Unit in Mt. Pleasant. The Southeast Iowa Homemaker-Home Health Aide Service, Inc. and Home Health Care provide home health services ranging from medical to protective and respite needs. Burlington also has two skilled nursing facilities, one at the Burlington Medical Center, and the other at St. Francis Continuation Care and Nursing Home Center.

Numerous public and private elementary and secondary schools exist throughout the county, including the K through 12 Danville Community School and 10 elementary, 4 middle, and 2 high schools in Burlington/West Burlington.

The Burlington Community School District is the ninth largest district in Iowa, with an enrollment of approximately 5,700 students. The Middletown School closed several years ago, and students from that town now attend school in West Burlington.

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. Coursework also can be completed at the SCC campus for classes offered from Western Illinois University, St. Ambrose College, and Iowa Wesleyan College. 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. Hunting for dove, quail, turkey, and deer is a popular regional sport, and lakes and the Mississippi River offer fishing for catfish, crappie, and bass. The Des Moines County Conservation Board manages the Starr's Cave Preserve and Geode State Park west of Burlington, which offers 1,573 acres of woodlands for camping and hiking.

Regional parks with picnic facilities include Crapo Park, Dankwardt Park, Perkins Park, Sunnyside Park, Mosquito Park, and Riverfront Park. Additionally, there are two public golf courses in the county and two bowling centers. Community Field, which seats 3,500, is the home of the Burlington Braves professional baseball team, which competes in the Class A Midwest minor league.

A major regional event that attracts visitors from Iowa, Illinois, and northern Missouri is the 6-day-long Burlington Steamboat Days and American Music Festival, which begins the second Tuesday in June each year. The activities include daily performances of country, rock, big band, rhythm and blues, and jazz on the Miller Outdoor Stage and Memorial Auditorium. Additional festival activities include fireworks, river cruises, the Shoquoquon Sailboat Regatta, and the Snake Alley Art Fair.

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## 2.2 COMMUNITY INVOLVEMENT HISTORY

Since its initial development as Iowa Ordnance Plant in 1940, IAAP has been a major source of employment for workers in southeastern Iowa. Despite fluctuations in the work force during wartime and peace, IAAP continues to be a a major contributor to the economy of Des Moines County with a work force of 1,300 military and civilian staff. However, due to the presence of other major industries in Burlington and the isolation of IAAP from large population centers, the major impact of the installation to the regional economy is not always readily apparent.

Due to the complexity of IAAP's mission and past media coverage of environmental issues, local citizens are aware of and in many cases concerned about environmental and public health impacts possibly due to past IAAP production practices. In particular, residents living adjacent to IAAP have voiced concerns about the quality of surface water flowing from the installation, the possibility of contamination of private wells from on-post environmental problems, and damage to property from IAAP testing activities. The Army has continually conducted environmental studies to assure public health and well-being.

Interaction with local residents and citizens of neighboring communities consists of formal and informal contacts. Since many of the past and current environmental studies require the installation and sampling of groundwater monitor wells along the IAAP perimeter, there is frequent contact between environmental staff and perimeter neighbors. During the past studies, private wells of many residents living near IAAP have been sampled. Public scrutiny and interest in the studies intensified in 1985 when it was announced that high levels of methylene chloride, trichloroethane, and acetone were present in some samples. Test results coincided with a local family's claim that

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numerous family members' health problems may be linked to IAAP contamination. Consequently, some residents questioned the accuracy and effectiveness of IAAP environmental management practices. The Iowa Department of Water, Air, and Waste Management assisted in evaluating well samples from the family's wells and concluded family problems did not appear to be related to environmental contamination. Nonetheless, suspicion of Army environmental monitoring programs continues among some perimeter residents.

As part of the formal community involvement program regarding environmental issues, public meetings have been conducted at the Burlington City Council Chambers. Two local citizens attended the most recent public meeting conducted on October 25, 1989, in conjunction with an application for a RCRA Part B permit.

Additional interaction with IAAP and local communities and citizens is frequent and diverse. The public is allowed access to on-post lakes for fishing, and special permits are issued for deer and turkey hunting on the installation, at the discretion of the Commander Officer. In addition, potential hunters are required to attend a plant safety and security briefing. Boy and Girl Scout troops use the Mathes Lake recreational site, owned and maintained by the Army, for camping. The public also has access to the IAAP Recreation Hall for diverse social activities, including wedding receptions, private parties, and employee reunions. A bike route has been established across plant property for special biking events. Armed Forces Day features an open house with military displays provided by state Army Reserve and National Guard units and exhibits of materials produced at IAAP. As part of the event, a tour of the installation is provided, with guests riding flatbed rail cars pulled by an IAAP locomotive. Armed Forces Day is considered a major regional event by many local residents.

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As part of Army Energy Awareness Week, IAAP sponsored an art contest in local schools for students to depict energy awareness and conservation creatively. Students participating in the contest toured the plant. In conjunction with the Burlington/West Burlington Chamber of Commerce Quality Days, IAAP hosted an open house for 75 regional business leaders and exhibited methods of quality control in ordnance production.

The IAAP commander is personally active in the Burlington Kiwanis Club and participates in Memorial Day observations with local military service clubs. He has also been a guest on Burlington radio station KBUR talk shows. Military and Mason & Hanger employees are active in civic and professional groups. The current president of the Burlington School Board is an IAAP employee.

Radio and newspapers provide frequent news coverage of IAAP events, including Armed Forces Day activities and change-of-command ceremonies, which receive live radio coverage. Mason & Hanger also provides input to the "Burlington Hawk-Eye" financial/business sections.

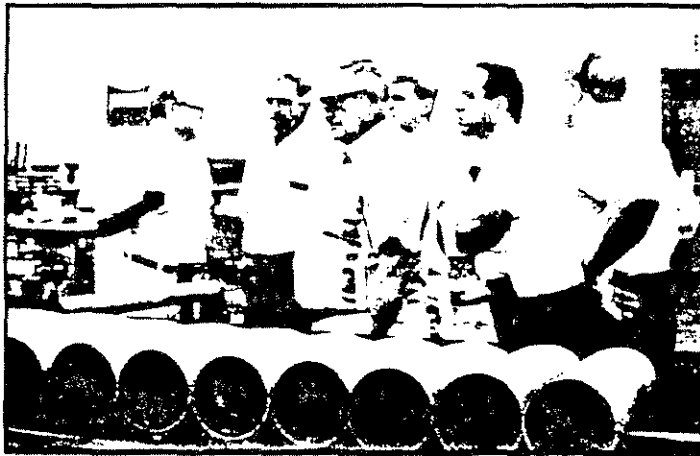
Formal tours of the installation are provided to U.S. Congressional delegations. Local elected and civic leaders are also invited to participate in the congressional visits. Special briefings and tours are also periodically provided for city and county officials representing surrounding towns and governmental units. Figures 2.2-1 and 2.2-2 present a news story of a regional mayors' visit to IAAP and the agenda of the visit. Other news stories published since 1985 that involve environmental issues are presented in Appendix C.



IOWA ARMY AMMUNITION PLANT • MASON &amp; HANGER - SILAS MASON CO., INC., CONTRACTOR

VOLUME 33 NUMBER 16

26 AUGUST 1988



## Mayors Visit IAAP

Fifteen city and county officials representing the surrounding area visited the Iowa Army Ammunition Plant for an orientation meeting and tour through parts of the plant. The tour, conducted by LTC Jack Conway, Commanding Officer; Captain Wayne W. Johnson, Executive Officer; and Pete A. Richardson, Division Manager, Mechanical, visited parts of Line 1, the Explosive Waste Incinerator, Contaminated Waste Processor, Sewage Treatment Plant (Pink Water Lagoon) and Test Fire.

Mayors attending were Lowell Bauer, Burlington; Bob Summers, West Burlington; Arian Walker, Middletown; Goldie Albright, Danville; Mike Foster, Ft. Madison and City Council Member Duane Griggs representing New London. City Managers attending were Sam Coxson, Ft. Madison and Richard Wardenburg, West Burlington. County Supervisors representing Des Moines County were Dale Anderson, Joe Beckman and Phil Rappenecker. Frank Mohrfield represented Lee County. Others attending were Ed Farley, Civil Defense Director, Mt. Pleasant; Clayton Fulkner II, Executive Director, BADCO and Tony Burton, Executive Assistant, Chamber of Commerce.

A primary purpose of the visit was to discuss environmental concerns and problems, and show the officials what we are doing to manage the environment. The officials were pleased and have expressed appreciation for the opportunity to learn more about our plant.

## Save Your Blood

On October 5 the Mississippi Valley Regional Blood Center (MVBC) will set up equipment at the IAAP Rec Hall so that all plant employees will have an opportunity to donate blood. We are asking all current blood donors and those in-

terested in donating blood to wait until October 5 so that everyone can participate in the IAAP blood drive. MVBC provides all transfusion needs for our community. Additional information will follow at a later date.

## Dry Weather Alert

It is an extreme concern to all employees to be alert in the existing dangers of fire at this installation. The long and hot dry spell that we have been experiencing has increased the hazards of fire to the extent that each plant resident and each plant employee need be on watch for anything that could kindle a fire. It only takes one small spark, one almost extinguished cigarette or paper match, one welder spark or a very warm catalytic converter on an automobile parked in a grassy area.

Each person within the confines of the Iowa Army Ammunition Plant is urged to take extreme caution with anything that could possibly cause an unseen spark or in any way be able to start a fire.

Maintenance workers using torches and welders should first wet down the working area and proceed with extreme care while working with any flame-producing devices and/or equipment. The area should be checked periodically while working and as soon as the use of the torch/welder is completed. Engineers working with subcontractors should stress the need for the same procedures to be followed as with the maintenance worker. Another final check should be made before leaving and it is suggested the same area be wetted down again as a final precaution.

## Don't Forget Your Keys

The Plant Protection Division wants everyone to be aware of "Keys to Security," the monthly newsletter discussing security problems and/or issues. Security is a priority concern here at IAAP and "Keys to Security" is an easy way for everyone to keep up on the latest security news. This month's issue discusses the issuing and termination of Personnel Security Clearances and will be posted on all IAAP bulletin boards. Don't forget to read this month's issue of "Keys to Security," your monthly security newsletter.

Figure 2.2-1  
"THE EYE" (FRONT PAGE), MAYORS' VISIT,  
AUGUST 26, 1988

SOURCE: MASON & HANGER, 1990.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

AGENDA  
for the visit of  
MAYORS AND COUNTY OFFICIALS  
15 July 1988

- 1300 Arrive at the Iowa Army Ammunition Plant
- 1305 Welcome and Briefing
- 1345 Depart for Tour of Line 1 (RAAM)
- 1400 Tour Line 1 (RAAM)
- 1500 Tour Building 1-70-1 and former contaminated area
- 1520 Drive around Explosive Waste Incinerator, Contaminated Waste Processor and Sewage Treatment Plant with stop at the "Pink Water Lagoon"
- 1540 Depart for Test Fire Site
- 1550 Observe Test Fire of Warhead
- 1610 Return to Administration Area with a Drive Past the Monitoring Wells at the Inert Landfill
- 1625 Guest Departure

Figure 2.2-2  
AGENDA FOR VISIT OF MAYORS AND COUNTY  
OFFICIALS, JULY 15, 1988 (page 1 of 2)

SOURCE: IAAP, 1990.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

## PARTICIPATING PERSONNEL

VIP's

Lowell Bauer  
 Bob Summers  
 Duane Griggs

Goldie Albright  
 Arlan Walker  
 Mike Foster  
 Sam Coxson  
 Richard Wardenburg  
 Dale Anderson  
 Joe Beckman  
 Phil Rappenecker  
 Frank Mohrfield  
 Ed Farley  
 Clayton Fulknier II  
 Tony Burton

Mayor of Burlington  
 Mayor of West Burlington  
 City Council Member Representing Mayor  
 of New London  
 Mayor of Danville  
 Mayor of Middletown  
 Mayor of Ft. Madison  
 City Manager of Ft. Madison  
 City Manager of West Burlington  
 Des Moines County Supervisor  
 Des Moines County Supervisor  
 Des Moines County Supervisor  
 Lee County Supervisor  
 Civil Defense Director of Mt. Pleasant  
 Executive Director, BADCO  
 Executive Assistant, Chamber of Commerce

IOWA ARMY AMMUNITION PLANT

LTC Jack D. Conway  
 CPT Wayne W. Johnson  
 Leon Baxter  
 Darlene Norton

Commanding Officer  
 Executive Officer  
 Industrial Engineer  
 Administrative Officer

MASON & HANGER-SILAS MASON CO., INC.

Peter A. Richardson  
 James M. Farren  
 Darl J. Heffelbower  
 Earl L. Garrels  
 Edward A. Place

Acting Plant Manager  
 Division Manager, Operations  
 Division Manager, Management  
 Production Supt., Line 1  
 Test Fire Supt.

Visitors will be provided with safety glasses and protective footwear.  
 Tour guides will assure compliance with safety regulations.

Figure 2.2-2  
 AGENDA FOR VISIT OF MAYORS AND COUNTY  
 OFFICIALS, JULY 15, 1988 (page 2 of 2)

SOURCE: IAAP, 1990.

Prepared for:  
 U.S. Army Toxic and Hazardous  
 Materials Agency  
 Aberdeen Proving Ground, Maryland



Participants in the April 1990 public involvement survey indicated IAAP enjoys a broad base of community acceptance and support. With continued groundwater monitoring, additional studies, and remediation occurring at numerous IAAP sites, interaction between the Army, private citizens, community leaders, and the media can be expected to continue and intensify. Activities to assist in developing and expanding the IAAP public involvement program are identified in Section 3.0.

### 2.3 COMMUNITY INTERVIEW PROGRAM

To identify community attitudes and concerns regarding IAAP environmental studies and remedial activities related to contamination of groundwater, surface water, and soils/sediments, USATHAMA, Environmental Science and Engineering (ESE), and IAAP representatives conducted community surveys on April 10, 11, and 12, 1990. The surveys involved input from 28 persons, including 11 residents of properties adjacent to IAAP boundaries; 2 members of the IAAP work force, 1 of which was a union member and 1 a governmental employee; 3 residents of IAAP housing units; residents and local officials of nearby towns; a local pastor; and an Iowa state senator. Interviews were coordinated by the IAAP PAO and the IAAP Industrial Engineer.

A summary of the responses to interview questions is provided in this section.

#### Question 1

An environmental study is being conducted at the Iowa Army Ammunition Plant (IAAP). Have you heard about this study? If so, do you remember when and how you learned of it?

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Summary of Responses

Twenty-three of the 28 survey participants were knowledgeable of environmental studies taking place at IAAP and, in many cases, had acquired information from several sources.

Collectively, the primary source of information for IAAP studies was newspaper stories in regional media (11), with most persons reading the "Burlington Hawk-Eye" or the "Des Moines Register." IAAP employees also learned of the studies through the contractor's employee newsletter "The Eye", and by reviewing environmental reports. Local residents gained information from conversations with IAAP plant workers; IAAP workers and perimeter residents learned of the studies by observing groundwater well drilling and sampling and studies taking place at IAAP. Housing area residents received information from town meetings and letters sent to housing area residents.

Question 2

Have you talked with Army, state of Iowa, or EPA officials about the environmental study ongoing at IAAP?

Summary of Responses

Twenty-one of the survey participants had not sought information from the Army, the state of Iowa, or EPA. Five persons interviewed had asked for information from the Army. One resident of property next to IAAP had requested information from the Army and the Iowa Health Department. An Iowa state senator had sought information from DNR regarding groundwater monitor wells being installed along the IAAP perimeter.

Question 3

If you have, were they responsive to your concerns?

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Summary of Responses

Five persons seeking information regarding IAAP environmental studies stated the agencies contacted had been responsive to their requests. Two survey participants said the Army had not satisfactorily responded to their questions or requests for information.

Question 4

Do you have any special interests or concerns about IAAP?

Summary of Responses

All 11 of the survey participants living adjacent to IAAP had one or more concerns regarding activities at IAAP. Seven of the residents stated noise and vibration to their home from testing at IAAP are concerns. One person stated she felt cracks in the foundation of her home were caused by explosive detonations at IAAP. Another resident feared that vibrations from plant testing activities may damage the hard drive on his personal computer. Citizens in Danville are also concerned about noise and vibration from testing at IAAP.

Four of the residents stated that hunters allowed to use IAAP properties are irresponsible in their actions and fire deer slugs toward their homes and barns, endangering property and personal safety of perimeter residents. They said that fewer hunters should be allowed onto IAAP and closer scrutiny of hunting activities of those using plant properties should be provided. It was noted, however, that a controlled thinning of the IAAP deer herd had eliminated most crop and property damages caused by the animals. Two residents also mentioned that area goats and dogs are dying from cancer and large tumors exist in their livestock. They stated they observe large numbers of sick wild animals in the area of their farms and fear the illnesses are caused by exposure to contaminants possibly at IAAP.

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Four residents expressed concerns that surface water flowing from IAAP may be contaminated and may adversely affect off-post streams and lakes. One person said he remembered a fish kill at Anderson Lake, which he felt was caused by surface runoff entering the lake from lands sprayed with herbicides. He said he wants the Army to monitor carefully the quality of surface waters to safeguard regional recreational fishing. Two residents also questioned the accuracy and frequency of the Army's sampling of groundwater monitor wells and stated they do not trust the analytical reports of the tests and said the "...Army's credibility is low." One resident noted his home well had been sampled by the Army and he would appreciate being told of the results. Two residents stated they are concerned that their personal health may be endangered from surface and groundwater contamination.

Two perimeter residents said they had observed "black clouds from burning" at IAAP and would like to know what is being burned at the installation and why burning is practical there. One resident also expressed concern that property values may have decreased because of environmental problems at IAAP.

Survey participants also had other concerns. One on-post resident said her heater sometimes emits smoke, and another resident said she would like to have the quality of her home water tested since the water smells when it first flows from the taps. An IAAP worker stated she is concerned about work place ventilation and health hazards related to work materials. A local school official noted there is a high cancer rate in southeast Iowa, and the disease is a major community concern. An area business leader stated the Army is a good neighbor and he wants the community to feel comfortable with the presence of the plant. He said the plant is needed by local communities and that it is essential to prevent an "...us and them mentality" from developing in the area.

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Five persons interviewed had no special interests or concerns regarding IAAP.

Question 5

Have any of your friends or neighbors talked with you to express interest or concerns about the environmental study, and if so, what were their concerns?

Summary of Responses

Nineteen survey participants said concerns relating to IAAP had been expressed to them, and nine persons said IAAP environmental concerns had never been mentioned by anyone. The concerns expressed fall into three general categories: surface and groundwater contamination, noise and vibration, and various.

Nine of the eleven local residents stated neighbors or friends had talked to them about one or more environmental issues related to IAAP. Five of the residents said concerns regarding the quality of surface water leaving IAAP, specifically in Brush Creek, had been expressed to them. It was noted that many years ago the water in Brush Creek was red as it flowed from the installation. Although the red-water flow has ceased, residents said memories of the water coloration heightened sensitivity to the water quality issue. One person said he remembers the red waters caused local raccoons to become "reddish-white."

Five of the residents stated concerns had also been expressed to them regarding the quality of drinking water from private wells. Two persons interviewed noted that several years ago a family had claimed the Army had contaminated their well and that media coverage of the incident had caused perimeter residents to be concerned about the safety of their water. Two residents of IAAP housing units said neighbors had expressed concerns about quality of drinking water in the housing area. Several local officials and perimeter neighbors

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\* noted that concerns regarding noise and vibration from testing activities at IAAP had been expressed to them.

Other concerns were also expressed by survey participants. An IAAP employee said fellow workers have expressed concerns about workplace ventilation, and another worker said a neighbor had stated he is concerned about smoke from installation burning. One housing area resident said concerns regarding the possible health hazards from radon in the home had been expressed to her. A local official said concerns have been expressed regarding high levels of radium in drinking water and that some citizens believe it is caused by activities at IAAP. A regional business leader said economic concerns expressed to him included the role of the plant in the regional economy and that possible plant layoffs worry local residents since IAAP is the county's largest employer.

#### Question 6

2 If you have a question or concern, what would you do? Is there someone you would call?

#### Summary of Responses

Survey participants said they would contact a variety of people if they had a questions or concern. Local residents stated that they would contact the IAAP commanding officer. Of the perimeter residents who were interviewed, four said they would contact the IAAP commanding officer; two would contact the PAO; two would contact Patty Thompson, an Army employee and neighbor; one would contact his godfather, who is a former Army employee at IAAP; and two did not know of anyone to contact.

One plant worker said she would contact her foreman and another worker said she would contact Leon Baxter of the Army's environmental staff. The three IAAP housing unit residents who were interviewed

stated they would seek information from Owen White, the IAAP Housing Manager. Other contacts included Bob Reid, a division manager at Mason & Hanger; Floyd Laue, an environmental scientist with Mason & Hanger; "the Army staff"; the post office in Middletown; and the IAAP guard headquarters.

#### Question 7

Would you be interested in joining a mailing list to receive news releases, fact sheets, and other general information about this study?  
Yes? No?

#### Summary of Responses

All 28 survey participants said they want to be included in the Army's mailing list to receive environmental information regarding IAAP.

#### Question 8

Other than the mailing list, what other ways can IAAP provide you with information?

#### Summary of Responses

Newspapers--All 28 survey participants regularly read the "Burlington Hawk-Eye." Additional newspapers read by survey participants include the "Des Moines Register" (8), "Des Moines News" (2), "Mt. Pleasant News" (1), and the "Ft. Madison Democrat" (1). IAAP workers also read "The Eye," a publication produced by the Mason and Hangar staff.

Television--Survey participants primarily view the Quad City stations KWQC-TV, Channel 6, Davenport, IA; WHBF-TV, Channel 4, Rock Island, IL; and WQAD, Channel 8, Moline, IL. Additional stations viewed include KJMH, Channel 26, Burlington, IA, and KTVO, Channel 3, Kirksville, MO. Six survey participants do not watch television.

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Radio--Twenty survey participants listen regularly to KBUR, Burlington, IA. Additional stations listened to by persons interviewed included KGRS, Burlington, IA; KDWD, Burlington, IA; KCPS, Burlington, IA; KILJ, Mt. Pleasant, IA; KBKB, Ft. Madison, IA; WOC, Davenport, IA; and WHO, Des Moines, IA. Four persons interviewed do not listen to radio.

Information Repository--All persons surveys said public access to environmental study reports would be useful and was desired. The Burlington Public Library, already in use as a repository for IAAP reports, was identified by thirteen survey participants as a suitable location for study reports. IAAP workers and housing unit residents suggested reports be placed in the IAAP recreation hall, lobby area in Building 100-101, plant clinic, or rotate among the IAAP Change Houses in the different production areas. Danville officials suggested reports be placed in the Danville City Hall, Danville Library, or Danville State Savings building. New London officials said the New London Town Hall or New London High School would be practical locations for repositories. The post office in Middletown and the Augusta Town Hall were suggested as repository sites by two residents living on properties adjacent to IAAP.

Community Information Line--Twenty persons interviewed said the need existed for a community information line to IAAP to gain environmental information. Several people said the line may not be used frequently but should be available to the community. Eight persons said there is no need for a community information line.

Briefings at IAAP--Twenty-three survey participants stated briefings to IAAP would be useful and informative and that they would attend a briefing. It was suggested by one participants that briefings be held in both morning and afternoon sessions to allow shift workers to participate in the activity. An IAAP worker suggested the briefings be



incorporated into regularly scheduled safety meetings. Residents of IAAP housing units stated briefings could be part of town hall meetings conducted bi-annually for installation residents. A regional business leader suggested briefings be held on Tuesdays, Wednesdays, or Thursdays to avoid conflicts in work schedules.

Community Meetings (Suggested Time and Place)--Twenty-two persons interviewed said they would attend a community meeting about IAAP environmental studies and remedial actions. Suggested locations for the

meetings included the IAAP Recreation Hall, Machinists Union Hall, Plumbers Union Hall, Augusta Town Hall, Burlington Council Chambers, Danville Community Building, New London Town Hall, New London High School, Southeast Community College, and area churches. A Danville resident said notices of meetings should be placed in the post offices in Middletown and Danville. One person emphasized that public meetings are effective only if properly planned and presented, and diverse methods of communication, including visuals, should be used in the meetings. Six persons said community meetings would not be a practical method for them to receive information. One person noted meetings are too frequently dominated by activists and needed information is not effectively presented.

Informal Community Group Workshops--Fifteen survey participants said informal workshops were not a practical method of public involvement, eight said they would attend and participate in workshops, and five persons had no opinion on the subject. A business leader noted that workshops can be effective but only when specific goals are being sought.

Other--Residents living adjacent to IAAP said the Army needs to develop a citizen involvement activity that will allow more interaction between residents and the Army. Two perimeter residents said more

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news releases on environmental actions at IAAP are needed. A local pastor suggested that the Army provide speakers to discuss environmental management at parish council meetings.

An IAAP employee said environmental documents should be rotated among the Change Houses so documents could be reviewed by workers during their lunch breaks. It was noted workers are in a hurry to go home after work

and would seldom visit the IAAP main lobby area to review the documents. It was further suggested that information dissemination should be integrated into regularly scheduled activities, such as safety meetings, to provide maximum distribution of information with least interference to work or after-work recreational and family time.

A resident of IAAP housing stated information should be directly distributed to the on-post housing units. Another resident suggested environmental information could be presented at the housing unit Town Hall meetings or included in The Eye, the plant publication of Mason and Hanger.

Local officials mentioned various ways of spreading information, to include placing information flyers in the Danville post office where community notices are posted, in local banks, and in the Danville City Hall. Two other officials suggested that the local cable television service broadcast IAAP briefings or public meetings.

A regional business leader stated the IAAP commander and PAO's direct and personal interaction in the community is an essential method of communication. He said being part of a team and interacting with public groups presents the Army in a personal forum. He emphasized the Army should use Armed Forces Day activities to gain community exposure and suggested developing an environmental management exhibit for use at the Des Moines County Fair or Westland Mall.

Question 9

How do you receive your drinking water? Private well? Community well? City water? Bottled water? Other?

Summary of Responses

Nine of the survey residents living on properties adjacent to IAAP receive their drinking water from private wells. Two perimeter residents interviewed had drinking water trucked to their property and stored in tanks.

Residents of IAAP housing units receive water from the installation water system. Survey participants from Middletown, Danville, New London, West Burlington, and Burlington receive drinking water from city water systems.

Question 10

Can you suggest anyone else (friend, neighbor, group) that we should contact or who might want to be included in the mailing list?

Summary of Responses

Survey participants suggested that several groups, organizations, or individuals be added to the IAAP mailing list and be provided environmental study fact sheets, news releases, and notifications of public meetings and the placement of documents into information repositories. Addresses of these individuals and groups have been included in Appendix K, Mailing List.

Question 11

Is there anything else you would like to mention that we have not talked about?

Summary of Responses

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Survey participants mentioned a wide variety of items. Residents of homes adjacent to IAAP stated they would like to know how the Army controls and monitors contaminants that may leave IAAP in surface water runoffs, specifically in streams. Groundwater monitoring was also mentioned as a concern. Residents said they wish to be informed of analytical reports of samples collected from groundwater monitor wells along the perimeter of IAAP. Two residents questioned whether the wells are being sampled at all.

Two residents said Army fences are not well maintained and their cattle sometimes enter installation property and are hard to locate and recover. A resident stated he is confused as to why the Army practices open burning that "causes black smoke over the plant." He said he is concerned that arsonists may create problems for IAAP and that lightning rods may exist at IAAP that seemingly attract frequent lightning strikes to the plant. A perimeter resident also asked if asbestos cleanup is occurring at the plant and where the asbestos is taken for disposal.

Concern was expressed about Army monitoring of soils leaving the installation. Two residents noted contractors from IAAP had provided dirt from the plant to a neighbor and nothing grows in the dirt. One perimeter resident said corn fields on plant property are sprayed with weed killer and pesticides and concern exists to whether wildlife may be harmed eating the corn. A Danville resident noted the IAAP deer herd still creates significant crop damage to farms adjacent to the installation and that the Army should "get rid of the deer."

A resident of the IAAP housing area voiced concern about the risk of acquiring Lyme disease from ticks in the woods at IAAP. Another IAAP housing resident said she would like to see a recycling program implemented at IAAP.

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A school official said the Danville school is starting environmental science classes and Army environmental staff would be welcome speakers to the classes. He said the Army could have access to the school's bimonthly school newsletter to announce public meetings and to provide notification of the placement of study documents in area information repositories. It was also suggested that environmental information about IAAP be printed in church bulletins.

Survey participants also expressed favorable attitudes toward the Army and IAAP. One participant said he thinks the Army is a good neighbor to this community. One participant stated he thinks the Army is doing a good job with its programs. An IAAP employee stated the Army is improving in its sharing of information with the plant work force. A regional business leader stated the Army is "...doing an outstanding job of being a prominent and good citizen." It was noted that 75 members of the Chamber of Commerce participated in the Fall 1989 Quality Day tour of IAAP, and Army and Mason & Hanger staff made the visit a success. An Iowa state senator said, "The Army has been a terrific corporate citizen."

#### Question 12

(Optional) In your opinion, how sensitive is the community to environmental issues?

#### Summary of Responses

Five survey participants said the community is very sensitive to environmental issues, six stated there is moderate interest in environmental matters, four stated environmental sensitivity is increasing, seven said the community is not very sensitive to environmental issues, two said they "haven't worried much" about the environment, and four persons interviewed did not express an opinion on the subject.

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#### 2.4 COMMUNITY ISSUES AND CONCERNS

Interviews conducted by USATHAMA, ESE, and IAAP staff in 1990, revealed numerous concerns relating to environmental issues at IAAP. Similar concerns were expressed to an EPA survey team that prepared the November 1989 public involvement plan for IAAP in conjunction with a permit application for hazardous waste disposal.

The 1989 survey and the April 1990 survey indicated the primary concern of local citizens and officials was the impact to property from blasting occurring at IAAP as part of ordnance testing. Complaints were voiced that cracks in windows, walls, and foundations may be caused by vibrations from the testing. Noise was mentioned as intrusive.

Additional concerns expressed in the April 1990 interviews centered on the possible impact of contaminants in surface and groundwater on human, livestock, and wildlife health. Residents adjacent to IAAP stated red water flow in Brush Creek from IAAP in the 1950s heightened awareness of pollutants at IAAP that may leave the installation in surface water and runoff. Participants in both surveys mentioned that concerns about human health impacts from consumption of contaminated well water had been intensified because of claims made in 1985 that a local family's personal health problems may be caused by contamination at IAAP.

April 1990 survey participants stated that black smoke clouds from burning at IAAP were a concern. Several residents stated they desired more frequent information relating to the findings of groundwater monitoring activities at IAAP, specifically results from monitor wells along the perimeter of IAAP. Perimeter residents noted their property and personal health are endangered by deer hunters at IAAP who hunt close to property lines and frequently fire deer slugs from shotguns in

05/08/91

the direction of family residences. Crop and property damage from the IAAP deer herd was also noted.

An IAAP employee said work place ventilation is a concern, and a local city official said New London citizens are concerned that high levels of radium in city drinking water may be linked to environmental problems at IAAP.

Participants in the 1989 survey (which included six area residents and officials) expressed a general lack of understanding of and familiarity with the permitting process and believed local residents were also unfamiliar with the process. Several 1990 survey participants said they want more information on the permitting program, including specific information on IAAP's application and hazardous waste management practices. Another county official commented he would like to be briefed on environmental issues affecting the local population before such information is shared with the media. Briefings would help county officials be aware of potential environmental controversies and enable officials to prepare responses prior to dealing directly with the public on these issues.

An examination of regional newspaper stories published since 1985 about IAAP revealed that groundwater test results in April and May 1985 created community concerns when high levels of methylene chloride, trichloroethane, and acetone were reported in samples collected in several monitor wells. Controversy was created when the validity of the sampling was questioned and the high levels were suggested as being a result of the method of laboratory analysis. Additional tests indicated contaminant levels were not as high as indicated in the previous samples. Two survey participants in the April 1990 interviews stated they continue to question the accuracy of groundwater monitoring, sampling, and

analysis and feel the Army lacks credibility in its environmental reports.

Environmental controversies also were evident in 1985 when the "Burlington Hawk-Eye" and the "Des Moines Register" printed stories in January and February regarding a family living on property adjacent to IAAP. Family members felt that many of their health problems were caused by their drinking private well water possibly contaminated by IAAP. June 1988 articles in the "Des Moines Register" reported that EPA visits to IAAP revealed serious waste disposal problems at the installation.

## 2.5 INSTALLATION PUBLIC AFFAIRS AND COMMUNICATION ACTIVITIES

IAAP's formal public affairs and communication activities are guided by IAAP's Commander and the PAO. Primary activities of the PAO include preparing and issuing news releases, responding to inquiries directed to the PAO for public response and action, coordinating and assisting in special activities such as Armed Forces Day and Memorial Day observations, scheduling and participating in news conferences regarding environmental events and issues, and coordinating and participating in tours and onsite briefings for community and governmental officials and groups. The Quarterly Public Affairs Report for Second Quarter 1990 is presented as Figure 2.5-1.

Members of the IAAP environmental engineering staff and appropriate plant contractor technical staff assist the IAAP PAO in preparing environmental news stories and releases. Additionally, the plant contractor employee newsletter, "The Eye," regularly prints news stories about the environmental management program, training courses, and environmental study findings. "The Eye" is published twice monthly and is distributed to all employees, military staff, residents



SMCIO-AO (360-61a)

9 April 1990

SUBJECT: Quarterly Public Affairs Report

FROM: CDR, IAAP, ATTN: SMCIO-AO

TO: CDR, AMCCOM, ATTN: AMSMC-IN

1. Reference E-Mail, AMCCOM, ATTN: IN01, 28 Mar 90, SAB.
2. Iowa AAP submits the Public Affairs for 2nd Qtr FY 90:

## Part I: Significant Events:

a. Representatives from the Burlington, Iowa newspaper, The Hawk Eye, visited the IAAP to discuss noise that the IAAP produces at its test fire site. The visit was in response to a local columnist's article in the paper concerning our noise. We explained that the IAAP has had an Installation Compatible Use Zone (ICUZ) study done by the U.S. Army Environmental Hygiene Agency (USAEHA), and the study indicated no undesirable noise levels were emanating from the plant. We also cited a study conducted at McAlester AAP (MCAAP) to assess the effects of noise on local surroundings. The MCAAP study indicated that the closest private structures, 2.5 miles away, have not suffered damage due to blasting items having explosive weight up to 400 pounds. We also told them that USAEHA is planning to visit the IAAP to further document the ICUZ by obtaining noise data with instrumentation. We gave the representatives a tour of a production line and allowed them to witness a test fire. As a result of this visit, two articles were published in the 21 Jan 90 Sunday edition of the Hawk Eye. Both of the articles were generally positive.

b. On 27 Feb we hosted a meeting of representatives from the U.S. Department of Agriculture; Soil Conservation Service; State of Iowa Department of Natural Resources; Des Moines County Conservation Board; Corps of Engineers, Missouri River District; AMC Installation and Services Activity; AMCCOM IS directorate; and plant personnel. We discussed changes in the agricultural (AG) outleasing policies for the IAAP which will reduce soil loss and use of AG chemicals while furthering multiple use and enhancing the environment. One of the changes is to enforce crop rotation. This will mean fewer row crops and possible reduction in revenue from the leases. However, we feel the long-range effects on the environment at our installation will be very positive.

Figure 2.5-1  
 QUARTERLY PUBLIC AFFAIRS REPORT,  
 APRIL 1990 (PAGE 1 OF 2)

SOURCE: IAAP, 1990.

Prepared for:  
 U.S. Army Toxic and Hazardous  
 Materials Agency  
 Aberdeen Proving Ground, Maryland

c. BG William J. Schumacher visited the plant with over 40 members of the American Defense Preparedness Association (ADPA) and representatives from AMCCOM on 15 Mar. They received the plant briefing and toured our production and support areas. The briefing and tour were well received and resulted in positive public relations for the IAAP. The evening culminated in an ADPA-hosted dinner at the Burlington Country Club. BG Schumacher was the guest speaker for the dinner.

PART II: Main Issues: The main issues facing this command in the near future as relates to the media are to continue to address environmental issues and keep the community informed on employment levels during this time of decreasing resources.

PART III: This installation will be conducting numerous activities in conjunction with Armed Forces Day on 10 Jun 90. Projected activities include air assault, air defense and dog team demonstrations, a pellet van and weaponeer display, and a large uniform and medal display.

PART IV: Not applicable for this report.

PART V: None.

ROBERT B. REEVES, JR.  
CPT, OD  
Acting Commander

Figure 2.5-1  
QUARTERLY PUBLIC AFFAIRS REPORT,  
APRIL 1990 (PAGE 2 OF 2)

SOURCE: IAAP, 1990.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

of IAAP housing units, and community leaders. Figures 2.5-2 and 2.5-3 present sample environmental stories printed in "The Eye."

Installation residents are informed of IAAP activities and events at biannual town meetings held in the spring and fall in the installation Recreation Hall, Building 500-116. The meetings are coordinated by the IAAP Housing Officer and include updates on environmental studies, guidelines for home safety practices, and a question-and-answer session with the IAAP commander and staff. A town meeting agenda and information handout for residents are presented as Figures 2.5-4 and 2.5-5.

Additional informal public affairs activities occur with involvement of IAAP employees in numerous local and regional religious, social, civic, and professional organizations. Past and current IAAP commanders have been active in civic clubs and have been speakers at club meetings. Also, since the public is allowed access to the IAAP Recreation Hall and outdoor recreational and hunting areas, there is regular interaction between IAAP staff and workers and the residents of local communities. Intense information exchange occurs informally between IAAP staff and local citizens.

## 2.6 TECHNICAL ASSISTANCE GRANTS

For the public to be as informed and involved as possible in an installation's environmental program, EPA manages a Technical Assistance Grants (TAG) program. The purpose of these grants is to assist citizens' groups in understanding technical information that assesses potential hazards and the selection and design of appropriate remedial actions. Information on TAGs is available at the information repositories listed in Appendix G, or information may be obtained by writing to: U.S. Environmental Protection Agency, Region VII, 726 Minnesota Avenue, Kansas City, KS 66101, (see Figure 2.6-1, Superfund Technical Assistance Grants).



## Spill control practice

Some IAAP employees may have witnessed what they believed to be a motor vehicle accident involving spillage of hazardous waste from barrels. This was a staged event - only a simulated training exercise. No one was actually hurt and there was no hazardous waste actually spilled.

The scenario was set for a practice (Spill Prevention Control & Countermeasures) exercise. Army and RCRA (Resource Conservation & Recovery Act) requirements were satisfied through the exercise.

Instructions and coordination for required action was prepared by Floyd C. Laue, Environmental Coordinator. Material simulating waste was actually colored water which was poured around the simulated accident scene to provide realism. Smoke bombs were used to simulate a fire, which could occur when volatile solvents are spilled in the immediate vicinity of motor vehicles.

No advance notice was given to

emergency response teams. They arrived promptly and accomplished assignments efficiently and effectively. Ambulance personnel provided treatment to simulated injured; firemen controlled the simulated fire; security personnel controlled traffic; and the emergency spill response team soaked up simulated waste and cleaned up soaked sand and snow.

The IAAP's new "Emergency Spill Trailer" was utilized for the first time in this exercise. It is equipped with necessary materials and equipment needed for an oil or hazardous waste spill. The trailer contains sandbags, absorbent materials, burlap, coveralls, boots, gloves, respirators, and other equipment necessary to immediately control a small spill.

The simulated exercise provided training for personnel involved and demonstrated that the IAAP's emergency response teams were capable of handling an emergency situation should one occur.

## Dan retire



**DAN BIED**

A retirement party, held for Dan Bied, long-time editor of The Eye, on Thursday, November 19, was attended by his wife Millie, Mrs. John Jamison and his many friends at IAAP. Cards and a gift of "Cold Cash" (packed in dry ice) presented by John Jamison were received by Dan (as any former Safety Inspector should do) wearing gloves. John reminded Dan that he had started his Mason & Hanger career in 1949 as a Forklift Operator at \$1.36 an hour. Dan spoke of his many years at IAAP, those he worked with in the Safety Department and that he felt fortunate to pick his time of leaving as many are unable to, due to poor health, etc. He mentioned that retirement was a highlight in his life as had been his marriage and discharge from service. He also spoke of how he began his writing career and of his enjoying the many people he had worked with through the years. Refreshments were served by Joan Wright and Nita Eden, Security and Safety Departments. His retirement was on Friday, November 20, 1987.

## Credit Union annual meeting

The annual business meeting of the IOP Federal Credit Union will be held January 26th, 7:00 p.m., at the IAAP Recreation Hall. Drawings will be held for cash prizes. Free liquid refreshments will be served after the meeting.

IOP FEDERAL CREDIT UNION - HERE TO SERVE YOU  
HOURS: 8:30 AM - 5:00 PM MONDAY thru FRIDAY

NEW  
IOP CREDIT UNION  
PHONE NUMBER

7654

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## 50th anniversary celebrated

Former employee John Crowner and wife Anna will celebrate their 50th wedding anniversary on Saturday, January 23rd. A party will be held at the Knights of Columbus Hall at 6:00 p.m. and all friends and relatives are invited to attend.

Figure 2.5-2  
"THE EYE" (INSIDE PAGE), JANUARY 15, 1988

SOURCE: MASON & HANGER, 1990.

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# the eye

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VOLUME 34 NUMBER 1

13 JANUARY 1989

## Asbestos Hazard Classes Taught At Rec Hall



Asbestos Worker and Contractor/Supervisor Training courses, approved by the Environmental Protection Agency (EPA), for Asbestos Hazard Emergency Response Act (AHERA) compliance were attended by twenty-one Army and M&H employees at the Rec Hall in December. The courses, taught by Greg Corder, Training Center Manager for Hall-Kimbrell Environmental Services, consisted of three and four days of classroom and hands-on training followed by an exam at the end of the three days, plus an additional day of classes and exam for Supervisors.

In learning the clean-up and disposal of hazardous waste, the classes studied the characteristics of asbestos, medical aspects of asbestos exposure, respiratory protection, personnel protective equipment, personal hygiene and decontamination, bulk sampling and air monitoring and remediation methods. In addition, the supervisory classes studied respiratory protection and medical surveillance, recordkeeping for asbestos abatement projects, insurance and liability issues, supervisory techniques for abatement activities and reviewed federal, state and local regulatory requirements, procedures and standards.

Attendees and departments represented were as follows: Lynn A. Daniels, Army Safety Specialist; Richard Luttenegger, Plant Engineering; Thomas R. Noel, Nicholas Kieler, Rob Jones, Craig Holzmueller, Safety; Ralph W. Kitch, Terry L. Salisbury, Dale Shoemaker, Charles Rukgaber, Jim Lindquist, Donald Lair, Gary Stinson, Richard Krouse, Arlen Shofe, Art Dilsaver, C. D. Wolgemuth, John Pilger, Ron Wilkerson, Pipe Shop; Melvin Stansbury, Stan Heidbreder, Utilities.

## New Officers For CEA

L. S. (Scott) Brodsky is the new CEA President-elect for the 1988-89 year. Vice President is Craig Osborn. The following were chosen as committee chairpersons: Concessions - Jeff Hibler, Promotions - Connie Hutchcroft; Youth Affairs & Activ-

ities - Loren Nihart; Bingo - Carolyn Nickell and Thomas Bailey; Recreation Hall - Craig Osborn, Steve Busse and Bruce Forsberg. The secretarial duties remained with Mary Lou Johnson and Annette Peterson is Treasurer.

Figure 2.5-3  
"THE EYE" (FRONT PAGE), JANUARY 13, 1989

SOURCE: MASON & HANGER, 1990.

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AGENDA  
TOWN MEETING  
10 OCTOBER 1989

OPENING REMARKS	LTC PETTERSON
POLICIES/ISSUES	LTC PETTERSON
PROJECTS	JUDI MORGAN
SELF-HELP	JUDI MORGAN
PM INSPECTION	JUDI MORGAN
RADON DETECTORS	NICK KIELER
FIRE PREVENTION & PROTECTION	CHIEF CANNON
ENERGY	RICHARD TIEMEIER
QUESTIONS & ANSWERS	

Figure 2.5-4  
TOWN HALL AGENDA, OCTOBER 10, 1989

SOURCE: IAAP, 1990.

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\*\*\* HOME FIRE CAUSES AND CURES \*\*\*

Even with a smoke detector, you can die in a home fire. Here are some ways to prevent fires from starting.

Smoke detectors can only warn you that a fire has started; they do nothing to prevent fires. We have come to rely on these electronic watchdogs, but at the cost of overlooking the basics of fire prevention: controlling sources of ignition, so that fires don't start, and controlling the fuels that feed them, so fires don't spread. To keep fires from starting we must begin by changing family habits.

Smokers in the family must obey a cardinal rule: No smoking in bed or when overly tired. The most common scenario for fire tragedy is a person falling asleep while smoking. Fire authorities state that as much as 30 percent of our home fire death toll can be blamed on careless smokers. Sleeping people don't necessarily wake up when they smell something burning. Many die, taking innocent family members with them.

Another scenario involves the smoker who awakens from a nap and goes to bed, unaware that his lit cigarette lies smoldering deep in the folds of his favorite upholstered chair. As the chair smolders, it emits deadly gases. By the time it burst into flames hours later, the family may already have died from the toxic gases. While smoking may be the No. 1 cause of residential fire deaths, heating and electrical equipment run a close second.

#### ELECTRICAL OVERLOADING

As modern technology enriches our lives with labor-saving, leisure-time and comfort-providing electrical appliances, we use more and more electricity. But can the electrical systems in our homes carry these added loads? Overburdening wiring with high-wattage appliances can cause the insulation to break down and eventually catch fire, which, in turn can spread to other combustibles. So, if fuses or circuit breakers frequently blow, or electric heat-producing appliances are slow to heat, or if three-way plugs and extension cords are part of you permanent wiring, you are overloading your system. Electrical appliances themselves can catch fire, either because they are inadequate to begin with or are not used or maintained properly. Always buy appliances that will do what is expected of them. Pushing them beyond their capacities not only shortens their lives but also sets up conditions for overloading and fire.

#### LOOK FOR THE LABEL

Whenever there is a choice, purchase an appliance that bears the Underwriters Laboratories (UL) or other recognized label. This label indicates that the product meets accepted standards for safety, that similar ones have been thoroughly tested, and that surprise inspectors and tests are conducted in the factory. Most appliances need air to cool them down to their ideal operating temperatures, even those motors that are intended to run "hot". Directions specifying clearances on all sides should be carefully followed.

Figure 2.5-5  
SAFETY SUGGESTIONS FOR IAAP RESIDENTS  
HANDOUT, OCTOBER 1989 TOWN MEETING  
(PAGE 1 OF 2)

SOURCE: IAAP, 1990.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
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POLICIES/ISSUES -

PETS  
MOTOR CYCLE REQUIREMENTS  
CHILD SUPERVISION  
GARDENS  
PLAYGROUNDS

\*\*\* GARDEN PLOTS \*\*\*

FALL PLOWING OF GARDEN PLOTS. Expenditure of housing funds is not authorized for plowing of gardens however, we are going to try to get them plowed at no expense to the occupant if anyone is interested.

\*\*\* CHILD SUPERVISION \*\*\*

Discuss child supervision. Respecting neighbors. Playing in driveways.

\*\*\* PETS \*\*\*

ALL PETS ARE REQUIRED TO BE REGISTERED AND ALL PETS MUST HAVE RABIES VACCINATIONS. PETS MUST BE UNDER LEASH OR VOICE CONTROL. HOUSING OCCUPANT HANDBOOK CHAPTER 4 COVERS PETS.

\*\*\* PLAYGROUND \*\*\*

PLAYGROUND WILL BE RELOCATED BY SWIMMING POOL AS SOON AS FUNDING IS AVAILABLE.

\*\*\* MOTORCYCLE REQUIREMENTS \*\*\*

HOUSING OCCUPANTS HANDBOOK, CHAPTER 3, PAGE 3-3, PARAGRAPH 3-6.

Figure 2.5-5  
SAFETY SUGGESTIONS FOR IAAP RESIDENTS  
HANDOUT, OCTOBER 1989 TOWN MEETING  
(PAGE 2 OF 2)

SOURCE: IAAP, 1990.

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## What They Are and How to Apply

Enacted in 1980, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)—otherwise known as “Superfund”—established a trust fund for the cleanup of hazardous waste sites in the United States. CERCLA was subsequently amended and reauthorized when Congress passed the Superfund Amendments and Reauthorization Act (SARA) of 1986. The U.S. Environmental Protection Agency (EPA), working in concert with the states, is responsible for administering the Superfund program.

In tandem with the roles played by federal and state agencies, an important aspect of the Superfund program is citizen involvement—at the local level—in decision-making that relates to site-specific cleanup actions. For this reason, community outreach activities are under way at each of the 951 sites that are presently on, or proposed for listing on, the National Priorities List (NPL). The NPL is EPA’s published list of the most serious abandoned or otherwise uncontrolled hazardous waste sites nationwide, identified for possible remedial cleanup under Superfund.

In addition to regulatory and legal requirements, decisions concerning cleanup initiatives at NPL sites must take into account a range of technical considerations. These might include analytical profiles of site-specific conditions, the nature of the wastes involved (as determined in chemical analyses), and the kinds of technology available for performing the necessary clean-up actions. In planning and implementing site-specific clean-up efforts, EPA and the states seek comments from citizens who live near these sites and therefore have a vested interest in cleanup actions being considered.

Clearly, an understanding of the technical issues concerning a hazardous waste site in their locality helps citizens provide thoughtful, informed comments to government decision-makers considering proposed Superfund actions. Recognizing the importance of community involvement, and the need for citizens living near NPL sites to be well-informed, Congress included provisions in SARA to establish a Technical Assistance Grant (TAG) Program intended to foster informed

public involvement in decisions relating to site-specific cleanup strategies under Superfund.

The TAG program provides up to \$50,000 to community groups for the purpose of hiring technical advisors to help citizens understand and interpret site-related technical information for themselves. Congress and EPA have established certain basic requirements concerning the proper use of TAG funds by a recipient group. For example, the group must provide 35 percent of the total costs of the project to be supported by TAG funds and must budget the expenditure of grant funds to cover the entire clean-up period (which averages six years). Congress has also stipulated that there may be only one TAG award per NPL site at any one time.

## Who May Apply

As stated in the 1986 Superfund amendments, groups eligible to receive grants under the TAG program are those whose membership may be affected by a release or threatened release of toxic wastes at any facility which is listed on the NPL, or proposed for listing, and at which preliminary site work has begun. In general, eligible groups would be groups of individuals who live near the site and whose health, economic well-being, or enjoyment of the environment are directly threatened.

Applications are encouraged from community groups having a genuine interest in learning more about the technical aspects of a nearby hazardous waste site and that have, or intend to establish, an organization to manage a grant efficiently and effectively. Such groups could be existing citizens’ associations, environmental or health advocacy or similar organizations, or coalitions of such groups formed to deal with community concerns about the hazardous waste site and its impact on the surrounding area. (Also, any group applying for a TAG must be incorporated under applicable state laws for the purposes covered by the grant.)

Groups that are *not* eligible for grant funds are:

- Potentially responsible parties: any individuals or companies (such as facility owners or operators, or transporters or

Figure 2.6-1  
SUPERFUND TECHNICAL ASSISTANCE GRANTS  
(PAGE 1 OF 4)

SOURCE: EPA, 1989.

Prepared for:  
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generators of hazardous waste) potentially responsible for, or contributing to, the contamination problems at a Superfund site.

- Academic institutions.
- Corporations that are not incorporated for the specific purpose of representing affected individuals (in relation to the Superfund site).
- Groups established and/or sustained by governmental entities (including emergency planning committees and some citizen advisory groups).

#### Uses Of Technical Assistance Grants

In general, grant funds may be used to hire technical advisors to increase citizen understanding of information that already exists about the site, or that is developed during the Superfund cleanup process. Acceptable uses of these grant funds include payments to technical advisors for services such as:

- Reviewing site-related documents, whether produced by EPA or others.
- Meeting with the recipient group to explain technical information.
- Providing assistance to the grant recipient in communicating the group's site-related concerns.
- Disseminating interpretations of technical information to the community.
- Participating in site visits, when possible, to gain a better understanding of cleanup activities.
- Traveling to meetings and hearings directly related to the situation at the site.

TAG funds may not be used to develop new information or to underwrite legal actions in any way, including the preparation of testimony or the hiring of expert witnesses.

A complete list of eligible and ineligible uses of grant funds can be obtained by contacting your EPA regional office or the headquarters information number listed at the end of this pamphlet. This information is also included in

the EPA publication entitled *The Citizens' Guidance Manual for the Technical Assistance Grant Program* (OSWER Directive 9230.1-03), available from your regional EPA office.

#### Choosing A Technical Advisor

When choosing a technical advisor, a group should consider the kind of technical advice the group needs most and whether a prospective advisor has the variety of skills necessary to provide all of the advice needed.

Each technical advisor must have knowledge of hazardous or toxic waste issues, academic training in relevant fields such as those listed below, and ability to translate technical information into terms understandable to lay persons. In addition, a technical advisor should have experience working on hazardous or toxic waste problems, experience in making technical presentations and working with community groups, and good writing skills.

Some of the specific subjects that a technical advisor may need to be skilled in include:

**Chemistry:** Analysis of the chemical constituents and properties of wastes at the site.

**Toxicology:** Evaluation of the potential effects of site contaminants upon human health and the environment.

**Epidemiology:** Evaluation of the pattern of human health effects potentially associated with site contaminants.

**Hydrology and Hydrogeology:** Evaluation of potential contamination of area surface water and ground-water wells from wastes at the site.

**Soil Science:** Evaluation of potential and existing soil contamination.

**Limnology:** Evaluation of the impact of site runoff upon the plant and animal life of nearby streams, lakes, and other bodies of water.

**Meteorology:** Assessment of background atmospheric conditions and the potential spread of contaminants released into the air by the site.

**Engineering:** Analysis of the development and evaluation of remedial alternatives and the design and construction of proposed cleanup actions.

Figure 2.6-1  
SUPERFUND TECHNICAL ASSISTANCE GRANTS  
(PAGE 2 OF 4)

SOURCE: EPA, 1989.

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A grant recipient may choose to hire more than one technical advisor to obtain the combination of skills required at a particular site. For example, a group may be unable to find a single advisor experienced in both hydrology and epidemiology, two of the skills most needed at its site. Another approach would be to hire a consulting firm that has experience in all the needed areas. EPA's *The Citizens' Guidance Manual for the Technical Assistance Grant Program* identifies other issues pertaining to hiring a technical advisor that community groups may find helpful.

#### How To Apply For A Grant

When applying for a TAG, a group must provide information to EPA (or to the state, if the state is involved in administering the TAG program) to determine if the group meets specific administrative and management requirements. The application also must include a description of the group's history, goals, and plans for using the technical assistance funds. Factors that are particularly important in this evaluation process include:

- The group's ability to manage the grant in compliance with EPA grant and procurement regulations.
- The degree to which the applicant groups' members health, economic well-being, and enjoyment of the environment are adversely affected by a hazardous waste site.
- The group's ability to inform others in the community of the information provided by the technical advisor.
- Broad representation of affected groups and individuals in the community.
- Whether the applicant group is incorporated for TAG purposes. (Only incorporated groups are eligible for grants.)

In general, a group must demonstrate that it is aware of the time commitment, resources, and dedication needed to manage successfully a TAG. Applicant groups should consult *The Citizens' Guidance Manual For The Technical Assistance Grant Program* for detailed instructions as to how such information should be presented.

The 1986 Superfund amendments state that only one TAG may be awarded per site at any one time. Thus, an applicant's ability to make technical assistance available to a large number of interested individuals in an affected community, broad representation of groups and individuals affected by the site, and plans for establishing procedures for disseminating a technical advisor's findings or interpretations of technical documents to the community are all important factors in the evaluation of applications. In general, applications submitted on behalf of more than one group will be evaluated more favorably than will other applications.

In an effort to ensure that all eligible groups have equal access to technical assistance and an equal opportunity to compete for a single available grant (if a coalition of groups proves to be impossible), EPA has established a formal notification process. Thus, groups wishing to apply for a technical assistance grant must first submit to EPA a letter of intent. If site project work is already underway or scheduled to begin, EPA will conduct either mailings, meetings, or public notices to provide formal notice to other interested parties that a grant for the site soon may be awarded. Other potential applicants then would have 30 days to contact the original applicant to form a coalition. If they are unable to form a coalition, they will notify EPA within this time period and separate applications from all interested groups will be accepted for an additional 30-day period. A grant would then be awarded to one of the competing applications, based on the evaluation criteria.

The maximum grant that can be awarded to any group is \$50,000. The actual amount

Figure 2.6-1  
SUPERFUND TECHNICAL ASSISTANCE GRANTS  
(PAGE 3 OF 4)

SOURCE: EPA, 1989.

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depends on what the group intends to accomplish. A group's minimum contribution of 35 percent of the total costs of the technical assistance project can be covered with cash and/or "in-kind" contributions, such as office supplies or services provided by the group. These services might include, for example, publication of a newsletter, or the time an accountant donates to managing the group's finances. The value of donated professional services is determined based on rates charged for similar work in the area.

In special cases where an applicant group intends to apply for a single grant covering multiple sites in close proximity to each other, EPA can allow a waiver of the \$50,000 grant limit to reduce the administrative burden on the recipient group. In such cases, however, the recipient cannot receive more than \$50,000 for each site to which they intend to apply funds (example: 3 sites x \$50,000 = maximum grant amount of \$150,000).

#### Where To Obtain Information

For further information on the application process or any other aspect of the TAG program, please contact an EPA regional office or call the national information number listed on the back page. An application package is available free by calling the EPA regional office for your State (see map on back cover). In addition to all the necessary application and certification forms, each application package includes a copy of *The Citizens' Guidance Manual For The Technical Assistance Grant Program*, which contains sample forms with detailed instructions for proper preparation of a TAG application.

#### EPA Regional Offices

**EPA Region 1**  
JFK Federal Building  
Boston, MA 02203  
(617) 565-3424

Connecticut, Massachusetts,  
Maine, New Hampshire, Rhode  
Island, Vermont

**EPA Region 2**  
26 Federal Plaza  
New York, NY 10278  
(212) 264-2515

New Jersey, New York, Puerto  
Rico, Virgin Islands

**EPA Region 3**  
841 Chestnut Street  
Philadelphia, PA 19107  
(215) 597-9370

Delaware, Maryland,  
Pennsylvania,  
Virginia, West Virginia,  
District of Columbia

**EPA Region 4**  
345 Courtland Street, NE.  
Atlanta, GA 30365  
(404) 347-3004

Alabama, Florida, Georgia,  
Kentucky, Mississippi, North  
Carolina, South Carolina,  
Tennessee

**EPA Region 5**  
230 South Dearborn Street  
Chicago, IL 60604  
(312) 353-2072

Illinois, Indiana, Michigan,  
Minnesota, Ohio, Wisconsin

**EPA Region 6**  
1445 Ross Avenue  
Dallas, TX 75202  
(214) 655-2200

Arkansas, Louisiana, New Mexico,  
Oklahoma, Texas

**EPA Region 7**  
726 Minnesota Avenue  
Kansas City, KS 66101  
(913) 236-2803

Iowa, Kansas, Missouri, Nebraska

**EPA Region 8**  
One Denver Place  
999 18th Street, Suite 1300  
Denver, CO 80202-2413  
(303) 293-1692

Colorado, Montana, North Dakota,  
South Dakota, Utah, Wyoming

**EPA Region 9**  
215 Fremont Street  
San Francisco, CA 94105  
(415) 974-8083

Arizona, California, Hawaii,  
Nevada, American Samoa, Guam,  
Trust Territories of the Pacific

**EPA Region 10**  
1200 Sixth Avenue  
Seattle, WA 98101  
(206) 442-1465

Alaska, Idaho, Oregon,  
Washington

**EPA Headquarters**  
401 M Street SW  
Washington, DC 20460  
(202) 382-4454

Additional information about TAGs may also be obtained from:

Ms. Hattie Thomas  
Office of Public Affairs  
EPA Region VII  
726 Minnesota Avenue  
Kansas City, KS 66101  
(913) 551-7762

Figure 2.6-1  
SUPERFUND TECHNICAL ASSISTANCE GRANTS  
(PAGE 4 OF 4)

SOURCE: EPA, 1989.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

### 3.0 PUBLIC INVOLVEMENT PROGRAM

#### 3.1 GOALS AND OBJECTIVES

The goal of the IAAP PIRP is to provide an effective mechanism for 2-way communication and the exchange of information among local communities; IAAP military staff, residents, and government/ammunition plant employees; the Army; and diverse federal, state, county, and local agencies. This PIRP has been designed to fulfill requirements of the following references:

1. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (Public Law 96-510), as amended, including Section 117 of the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499, October 17, 1986).
2. Headquarters, Department of the Army (HQDA) Public Affairs Plan 10-1-87: Installation Restoration Program, October 1987.
3. Army Regulation 200-1, "Environmental Protection and Enhancement," and the U.S. Army Materiel Command (AMC) and AMCCOM supplements to the regulation.
4. EPA guidance and publications, including Public Involvement in the Superfund Program (WH/FS-86-004) and CERCLA compliance with other environmental statutes [Federal Register 50(29):5928-5932].
5. The EPA publication Community Relations in Superfund: A Handbook [Office of Solid Waste and Emergency Response (OSWER) Directive No. 9230.0-3B, June 1988 - Interim Version].
6. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

This PIRP has the following specific objectives:

1. Ensure that the public understands that personal and community health and interests are of paramount concern to the Army and IAAP.
2. Keep local residents; IAAP military personnel, residents, and ammunition plant employees; and federal, state, county, and local officials informed in a timely manner of major findings and recommendations of the IRP.
3. Provide local community residents, IAAP residents, installation military personnel, and ammunition plant workers an opportunity to review studies and review and comment on remedial action alternatives.
4. Provide federal, state, and local regulatory officials an opportunity to review and comment on the studies being conducted at IAAP and on any suggested additional studies, remedial action alternatives, and decisions.
5. Keep IAAP and the Army sensitive to and informed about changes in community concerns, attitudes, information needs, and activities regarding IAAP and use these as factors in evaluating modifications of the PIRP, as necessary, to address these changes;
6. Effectively serve the installation's and neighboring communities' information needs and address citizen queries through prompt release of factual information through the media and other information dissemination techniques;
7. Effectively respond to the needs of the media by providing timely responses to inquiries and requests for interviews and briefings, thereby resulting in fair and accurate reporting of the findings and recommendations resulting from the IAAP IRP studies;

8. Maintain, through an active public affairs program, a climate of understanding and trust aimed at providing information and opportunities for comments and discussion;
9. Ensure that appropriate federal, state, county, and local elected officials are informed of results of the investigations and any recommended additional studies or remedial actions;
10. Provide a single entity for dissemination of information for matters regarding the progress of the IRP and other environmental issues at IAAP; and
11. Identify issues and potential areas of concern and develop and implement objective means to avoid or resolve conflict.

### 3.2 RESPONSIBILITIES

The following responsibilities are established for the communication activities suggested in Section 3.3:

1. Office of the Chief of Public Affairs (OCPA)--
  - a. Approves press statements or visits concerning the IAAP program that have national significance and coordinates with the Office of the Chief of Legislative Liaison (OCLL) for notification of appropriate congressional delegations.
  - b. Coordinates other notification actions with OCLL as appropriate or required.
  - c. Coordinates release of any IAAP program information at the national level with USATHAMA and AMC.
2. Office of the Chief of Legislative Liaison (OCLL), HQDA--a. Coordinates, with OCPA, notification of appropriate congressional delegations prior to national release of IAAP program matters, as well as other congressional notifications as necessary.

3. Chief of Public Affairs, U.S. Army Materiel Command (AMCPA)--
  - a. Coordinates with OCPA, USATHAMA, and AMCCOM the release of information not previously cleared for release.
  - b. Coordinates with USATHAMA and AMCCOM in advance of congressional and gubernatorial notifications.
  - c. Provides additional guidance and assistance in support of this plan as required.
4. Chief of Public Affairs, AMCCOM--
  - a. Provides public affairs support for the IAAP PIRP, as needed.
  - b. Refers technical queries to USATHAMA for response to IAAP program matters.
  - c. Acts as liaison between USATHAMA, IAAP, and higher headquarters, as required, to provide guidance and coordinate news releases or responses to queries for release at IAAP.
  - d. Coordinates Freedom of Information Act (FOIA) requests with AMC, USATHAMA, and IAAP.
5. Chief, Public Affairs Office, USATHAMA--
  - a. In coordination with AMC and AMCCOM, provides public affairs guidance and expertise to support the public affairs program at IAAP.
  - b. In coordination with AMC, AMCCOM, and IAAP, prepares statements, media releases, and fact sheets for use at major milestone achievements and during the progress of the IAAP program.
  - c. Refers to AMC for clearance and/or coordination of all material intended for public release which has not been previously cleared or specifically authorized for release in this or subsequent statements and public affairs plans.
  - d. Informs AMC of any queries, releases, or proposed media visits to IAAP concerning the program.



- e. Provides public affairs assistance to IAAP, EPA Region VII, IDNR, and local officials of communities near IAAP as required.
- f. Coordinates any congressional queries and responses with OCPA, OCLL, AMC, AMCCOM, IAAP, and other agencies as required.

6. Commander, IAAP--

- a. Responsible for implementation of the IAAP PIRP.
- b. Reviews and approves news releases and fact sheets.
- c. Provides final approval of any onsite tour of study areas.
- d. As needed or requested, meets with local union presidents and/or at regular union meetings to discuss study activities and environmental issues relevant to IAAP work force, or selects staff member(s) to do so.
- e. As deemed necessary by the commander, will meet periodically with employees, manager, and employee groups to keep employees informed of program developments and to address questions and concern.
- f. Provides final approval of contents of materials being presented to civic group meetings and personally makes presentations or selects staff members to participate in or present the program.
- g. Participates, as needed, in town meetings conducted for residents of IAAP housing units.
- h. Participates in special briefings conducted for area civic and business leaders and elected federal, state, county, and community officials.
- i. Participates in as-needed briefings to property owners and residents of lands adjacent to IAAP to be held in the IAAP Recreation Hall as a component of the Perimeter Neighbor Program. Provides final approval or selection of staff to participate in or present the briefings.

j. Approves development of a Citizen's Concerns and Liaison Committee and provides approval of Army staff to be included in committee activities and selects site for committee meetings.

7. PAO, IAAP--

a. Serves as the on-the-scene spokesperson and community Point of Contact for the IAAP program and responds to local, regional, and national queries using statements coordinated with AMCCOM and USATHAMA, or as provided in subsequent cleared statements or plans.

b. Informs AMCCOM and USATHAMA of all queries, releases, public briefings, tours, or requests for visits pertaining to the IAAP program.

c. Coordinates with AMCCOM and USATHAMA all responses to queries concerning IAAP program matters that require release of information not previously cleared for release.

d. Coordinates, immediately upon receipt, FOIA requests with AMCCOM and USATHAMA.

e. Refers queries pertaining to regulatory agencies such as EPA and IDNR to the appropriate agency point of contact or public affairs office.

f. Provides USATHAMA and AMCCOM with information copies of all IAAP-released material and copies of newspaper clippings.

g. Coordinates congressional, gubernatorial, and media notifications through AMCCOM and USATHAMA.

h. Distributes fact sheets, reports, and other pertinent information to the public information repositories listed in Appendix G and to members listed in Appendices I, J, and

- h. Also performs quarterly inspections of repositories to ensure materials are available and updated for public use.
- i. Coordinates, with IAAP Industrial Engineer, responses to queries from public information line.
- j. Provides to the plant contractor Manager and Personnel Director environmental fact sheets, copies of news releases, notifications of public meetings, results of well tests, etc., so relevant information can be provided to ammunition plant work force at regularly scheduled work place meetings and to new employees during their orientation.
- k. Provides fact sheets, copies of news releases, and notification of public meetings to appropriate leaders of IAAP unions.
- l. With assistance from USATHAMA PAO and AMCCOM PAO, plans, schedules, and coordinates all necessary requirements for implementation of community meetings.
- m. Plans and coordinates onsite tours of study sites and special briefings to elected community and county leaders.
- n. On an as-needed basis, assists USATHAMA and/or the AMCCOM PAO in the preparation of fact sheets relating to the RI/FS.
- o. In coordination with the IAAP Industrial Engineer and the IAAP Commander, prepares environmental news stories for "The Eye."
- p. Coordinates the distribution of fact sheets, project updates, and notices of public meetings for placement on installation bulletin boards and to installation work areas and housing units.
- q. Provides assistance to the IAAP Industrial Engineer in the preparation and distribution of any special memorandum or notice that requires delivery within 24 hours to IAAP residents and workers.

- r. Plans, coordinates, and/or presents informative programs relating to IAAP environmental studies and remediation to regional civic groups or classes at local schools.
- s. On an as-needed basis, participates in town meetings held twice yearly in the IAAP Recreation Hall for residents of installation housing units.
- t. With assistance from the IAAP Industrial Engineer, coordinates and directs activities of the Perimeter Neighbor Program, including the maintenance of the mailing list, mailing updates of RI/FS activities, and coordinating the as-needed briefings for program participants at the IAAP Recreation Hall,
- u. With assistance from the IAAP Industrial Engineer, administers and coordinates the activities and meetings of the Citizen's Concerns and Liaison Committee.
- v. With assistance from the IAAP Industrial Engineer and appropriate contractor staff, prepares an environmental management exhibit for display at Armed Forces Day and various community events, on an as-needed basis.

8. Industrial Engineer, IAAP--

- a. Responsible for coordinating with IAAP PAO appropriate and timely responses to environmental inquiries received on community information line.
- b. Will assist in presenting or present environmental issues seminar or program at least once a year at a town meeting held for IAAP housing unit residents and similar programs, as requested, to regional civic, school, or church organizations.
- c. Provides the contractor Plant Manager information regarding environmental actions that may impact worker safety so topics may be presented at quarterly safety meetings.
- d. Participates, as needed, in the planning and implementation of community meetings.

- e. Provides assistance to the IAAP PAO in planning and coordinating onsite tours of RI/FS sites and in providing special briefings to elected community and county leaders.
- f. Assists, as needed, the IAAP PAO and USATHAMA in the preparation of fact sheets relating to the RI/FS.
- g. With assistance, as needed, from the IAAP PAO and/or USATHAMA, provides environmental updates and news articles for use in "The Eye."
- h. Assists the IAAP PAO in planning and implementing activities of the Perimeter Neighbor Program.
- i. Assists IAAP PAO in coordinating and implementing activities of the Citizen's Concerns and Liaison Committee.
- j. Assists IAAP PAO, as needed, in distribution of fact sheets and notices of community meetings to IAAP housing units.
- k. Responsible for identifying environmental situations warranting the printing and distribution of special memoranda or notices to be provided to on-post workers and residents in a rapid response 24-hour timeframe. Responsible for the preparation of such notices, with assistance from IAAP PAO. Assistance in distribution of notices to be provided by appropriate plant contractor staff and IAAP PAO.
- l. Provides at least 48-hour advance notice to commander and PAO of scheduled project activities that may occur in neighborhoods of adjacent communities and require interaction with area residents. Additionally, as in the past, provides advance notice to residents of scheduled events to occur near their homes.
- m. Assists IAAP PAO in preparing an environmental management exhibit to be displayed at Armed Forces Day activities and appropriate community events.

n. Coordinates distribution to on-post housing units of special memoranda or notices regarding environmental issues that are relevant to IAAP residents.

In conjunction with the IAAP PIRP, EPA Region VII and IDNR are requested to:

1. Act as spokesperson on policy, procedure, or operations concerning their respective agency's programs relating to the IAAP program; and
2. Respond to media queries, as required, on their agency's involvement in the IAAP program and notify other involved agencies of responses and potential problem areas.

### 3.3 COMMUNICATION ACTIVITIES AND TECHNIQUES

The primary elements of success in a public involvement program are to develop an information network for relevant communications and a constructive mechanism for public participation in the program. To maintain, and enhance public involvement and to respond to changes in community concerns, the IAAP PIRP presents an active approach for identifying and addressing public concerns about environmental issues at IAAP. The PIRP will also allow continued public involvement during all phases of the investigation and cleanup process, including the RI/FS and the implementation of interim remedial measures (IRMs) as required by the study recommendations.

Essential to maintaining public trust is an on-line communication system by which relevant and accurate information is made available to local citizens, installation staff and residents, state and federal regulators, and the media in a timely and responsible manner. Sections 3.3.1, 3.3.2, and 3.3.3 present methods and techniques for implementing such a system, and Appendix F presents a recommended schedule for some of these activities.

### 3.3.1 AGENCY COMMUNICATION TECHNIQUES

Various communication and interactions have occurred with federal and state regulatory agencies regarding the IAAP environmental and remedial action programs. IAAP and USATHAMA have met frequently with EPA Region VII and IDNR to review previous and ongoing assessment studies, identify additional study needs, and develop program schedules. These meetings are necessary for the successful completion of the IAAP program and will be continued as part of the PIRP. For the IAAP PIRP, the following agency communication techniques are recommended:

1. Project Status Meetings--Held periodically with representatives from IDNR and EPA Region VII to review project status, accomplishments, upcoming activities, and schedules.
2. Telephone Conference Calls--Held as needed to keep agencies informed of program activities.
3. News and Fact Sheet Releases--IAAP will provide EPA Region VII, IDNR, USATHAMA, AMCCOM, AMC and officials of Des Moines County and adjacent communities courtesy copies of environmental issue-related news releases at least 48 hours in advance of public release so that agencies can respond adequately to any public inquiries regarding the releases.
4. Prior Notice of Scheduled Community Meetings--When community meetings are scheduled as part of the PIRP, advance notice will be provided to all involved agencies to allow maximum agency and public participation in the meetings and facilitate scheduling of required agency coordination meetings. The public meetings will be announced in regional newspapers, union publications, and at regularly scheduled safety meetings of Mason & Hanger workers at IAAP.

### 3.3.2 LOCAL COMMUNITY AND MEDIA COMMUNICATION TECHNIQUES

To date, communication with the local off-post community regarding the IAAP program has consisted of informal conversations with local residents during sampling of their private wells, formal community-wide surveys in 1989 (EPA PIRP) and 1990 (USATHAMA PIRP), interviews with local media, press releases, briefings and tours for elected officials and civic and business leaders, and responses to telephone inquiries directed to the IAAP PAO and IAAP Industrial Engineer by local residents. To expand communications and ensure effective two-way interactions between the Army and the local community, the following community relations communications techniques are recommended:

1. Community Information Line--To provide local citizens a direct means to obtain information or express concerns relating to environmental issues, a community information line should be established at IAAP. The community information line telephone number is (319) 753-7600, and the Point of Contact to coordinate responses to environmental inquiries is IAAP PAO Larry Johnson.
2. Fact Sheets/News Releases--These releases are distributed to local citizens, citizen groups, local and state officials, local media, and mailing list participants on a periodic basis. The fact sheets/media releases should be specifically directed to address the concerns of the adjacent property owners/residents and on-post employees and will include information on the status of the cleanup process at IAAP, updates on the schedule (i.e., notification of public meetings, well sampling events, etc.), and information on public health-related matters (i.e., relevant water quality criteria for surface and groundwater). Fact sheets should be sent out to all individuals on IAAP's mailing list (including those persons and/or organizations listed in Appendices D,E,I,J,K, and L), residents



participating in the offsite monitoring program, regulatory agencies, elected officials, and news media as newsworthy events occur. The fact sheets and copies of the releases should also be placed in the on-post and off-post information repositories. After the FS is completed, a fact sheet relating to the RI/FS process should describe the alternatives considered and offer the Army's preferred alternative for public comment. An updated fact sheet should be prepared after the agency selects a remedial alternative. Coupons will be included in fact sheets for those who wish to be placed on the mailing list. Also, news releases, letters, and public notices should advertise the community information line as a number to call if someone wants to add his/her name to the mailing list. A designated control person --the IAAP PAO, (319) 753-7600, or in that person's absence, the IAAP Industrial Engineer, (319) 753-7130-- should be identified on all fact sheets, news releases, letters to the community, and public documents.

3. Onsite Discussions and Briefings of Local and State Officials--Discussions should be held on an as-needed basis with local citizens, local and state officials and congressional representatives, and other interested parties (e.g., civic groups; see Appendix J). Timings of discussions and briefings should be based on the interest of the community and significance of project reports and activities.

4. Information Repository/Project File--Repositories should be accessible to the public for review of all program-related reports, fact sheets, and other information on the IAAP program. Information repositories have been established at the Burlington Public Library, 501 N. 4th, Burlington, IA; Danville City Hall, 105 W. Shepherd, Danville, IA; and the IAAP Administration Building (Building 100-101), Middletown, IA.

5. Public Consultations/Community Meetings--IAAP representatives should be available for direct consultations and meetings with

local citizen groups, following guidelines set forth by EPA in Community Relations in Superfund, Interim Version, June 1988 (pages 4-4, 4-5, 4-6, 4-10, 4-18, 4-19, and A-38); Draft Guidance on Preparing Superfund Decision Documents: The Proposed Plan and Record of Decision, March 1988 (pages 2-2, 2-5, 4-4, 6-1, 8-4, and 8-5); and guidelines outlined in CERCLA/SARA Sections 113 and 117. Using these documents as guidance, community meetings may be used as needed to present the study findings, discuss alternatives, respond to questions, and receive public comments.

6. Public Participation Workshops--When considered by the IAAP Commander, PAO, Industrial Engineer, USATHAMA, or a regulatory agency as a useful means to disseminate information or assist the IRP process, workshops can be held at an accessible public building (i.e., IAAP Recreation Hall or Danville Community Building). Notice of workshop issues and pertinent information should be published in local newspapers and released to other media (i.e., radio and television) for announcement and mailed directly to local citizens and groups who have previously expressed interest in the IAAP program.

7. Information Briefings--Interested state and local officials, state and congressional representatives, and key community leaders should be kept informed of plans and progress on a continuing basis. The IAAP Public Affairs Office should be responsible for maintaining liaison with public officials.

8. Site Tours--Tours of the environmental study areas may be held on an as-needed basis with local citizens, state and local officials, congressional representatives, and the media. Tours can be arranged through the IAAP Public Affairs Office or IAAP Industrial Engineer and appropriate contractor officials.

9. Public Review and Comment Period--Throughout the duration of the program, the public should have the opportunity to review program-related reports, fact sheets, and major technical documents

provided by the government at the information repositories and comment informally through IAAP's Public Affairs Office or the Industrial Engineer's office. In compliance with federal requirements, a public comment period is provided when the draft FS report is issued. The public comment period will be announced 2 weeks prior to the beginning of the comment period through display advertisements published in local newspapers, news releases, general mailings, public notices, and notices provided to IAAP unions and workplace supervisors. Formal public meetings will be conducted in conjunction with the issuance of the proposed plan. Notice of the meeting will include announcement of the time and place of the meeting, brief description of the proposed remedial actions, identification of IAAP and IDNR contact persons, and locations of information repositories. Notification and advertisement of the public meeting will be implemented in the same manner as the announcement of the public comment period. Additional means to announce the public meeting may include providing notification fliers to the administration of Danville Community School for distribution to students to take home to parents. Additionally, the Burlington/West Burlington Chamber of Commerce has stated it will print notices of public meetings in its monthly publication (Burlington/West Burlington Chamber of Commerce address is 807 Jefferson St., Burlington, IA 52601).

10. Summary of Concerns and Responses---A responsiveness summary will be prepared after the public comment period. The summary will document for the public record community concerns and issues and the responses to these issues. The responsiveness summary is required as a component of the Record of Decision (ROD).

11. Programs for Civic Groups or Schools--Slide and informational programs may be presented to regional civic groups or schools upon request. Civic and community groups are presented in Appendix J. The mission, history, and economic significance of IAAP should be

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reviewed, with emphasis on the specific RI/FS environmental actions. Appropriate speakers to review the objectives, studies, findings, and actions of the RI/FS may include the IAAP Commander, PAO, the Industrial Engineer, or persons identified by the IAAP Commander. Emphasis should be placed on appropriate presentations to environmental science classes at Danville Community School due to the proximity of many of the students' homes to the plant and interest expressed in community surveys for such presentations. A news release announcing the availability of speakers to make presentations to civic and school groups should be distributed to regional media. All speaking engagements will be coordinated by the IAAP PAO.

12. Perimeter Neighbor Program--Property owners of lands adjacent to IAAP should be mailed updates on groundwater and surface water contamination studies and remedial activities when deemed necessary by the IAAP commander. Briefings for these residents should be held as needed at the IAAP Recreation Hall, or other suitable location, to provide an open forum to discuss study findings, interim actions, and remedial alternatives. Participants in the meetings should include the IAAP Commander, PAO, Industrial Engineer, civilian contractor if appropriate, and staff deemed necessary by the IAAP Commander. Middletown and Danville officials, IDNR, and EPA may be invited as participants.

13. Citizen's Concerns and Liaison Committee--The IAAP PAO and the IAAP Industrial Engineer should form a Citizen's Concerns and Liaison Committee to assist IAAP in identifying and resolving community environmental affairs on an ongoing basis. The committee should be comprised of a member of on-post housing selected by the Housing Manager, a resident of Middletown appointed by the Middletown City Council, a resident of Danville appointed by the Danville City Council, a randomly selected resident of property adjacent to IAAP, and a local educator selected by the Superintendent of Danville

Community Schools. Additional committee members representing IAAP should include the IAAP PAO and Industrial Engineer and, if appropriate, a representative of the plant contractor. The committee should meet quarterly in the IAAP Headquarters conference room or wherever deemed appropriate by the IAAP commander and IAAP PAO.

14. Environmental Management Exhibit--A portable exhibit that presents an overview of environmental management activities at IAAP, including RI and cleanup activities, should be prepared. The exhibit should include photographs of sampling of monitor wells and cleanup actions and a map showing locations of IAAP perimeter groundwater monitor wells and locations where sampling of surface water occurs. Fact sheets should be available whenever the exhibit is used.

The exhibit may be used as part of IAAP Armed Forces Day activities and may be exhibited at other regional events, including the Des Moines County Fair.

### 3.3.3 ON-POST RESIDENTS AND EMPLOYEE COMMUNICATION TECHNIQUES

As of April 1990, approximately 123 on-post residents are living in 43 active housing units at IAAP, and 1,100 workers are employed by Mason & Hanger, the plant contractor, as ammunition plant workers. Additionally, two military staff, supported by a staff of 31 civilian workers, are assigned to IAAP. To ensure effective two-way communication between the Army and the on-post residents, civilian and ammunition plant workers, military staff, and local unions, the following command information communication techniques are recommended as part of the IAAP PIRP:

1. Commander's Call--The commander at IAAP will meet periodically with employees, managers, and employee groups to keep employees informed of program developments and to address questions and concerns.
2. Fact Sheets/Policy Letter--Fact sheets announcing the status of site investigations, interim remedial actions, and remedial

alternatives/actions should be distributed to work area supervisors to distribute to employees at scheduled staff meetings or quarterly safety meetings, as deemed necessary by the IAAP Commander. Additionally, fact sheets should be distributed to the Change Houses in the nine production areas and IAAP dining areas. Fact sheets should also be provided to the Housing Manager for distribution to on-post residents and should be mailed to IAAP union leaders.

3. Contractor Newspaper Article/Editorials--Program-related news releases and articles should be provided to the Mason & Hanger newsletter, "The Eye," as deemed necessary by the IAAP Commander. Due to public and worker interest in environmental subjects, a designated column could be introduced in "The Eye" to address specifically issues of interest to workers and residents such as radon and asbestos sampling, on-post drinking water standards, etc.

4. Bulletin Boards/Posters--Fact sheets, articles, sampling results, and other pertinent information should be posted on easily accessible bulletin boards, including those in the Change Houses and dining areas.

5. On-Post Information Repository--All program-related information and reports should be available for review by employees in the IAAP Administration Building lobby area, Building 100-101.

6. Union Meetings and Publications--The IAAP commander, as needed or requested, should meet with local union presidents and/or at regular union meetings to discuss IAAP RI/FS activities and address questions and concerns relevant to IAAP workers. Relevant news releases and notices of public meetings should be mailed to the union presidents for requested use in union publications and newsletters.

7. Safety Meetings--Information regarding environmental actions that relate to worker safety and health could be made available by the IAAP Industrial Engineer to work area supervisors to present as topics of discussion at quarterly safety meetings.

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8. Employee Information Packets--Environmental study fact sheets and notification sheets of the community information telephone line and location of the IAAP information repository should be made available by the PAO to the plant contractor Personnel Director so materials may be distributed to new employees during orientation activities.

9. Town Meetings--The IAAP commander and/or Industrial Engineer should present an environmental issues seminar or program at least once every 18 months or as needed as part of the town meetings held for residents of IAAP housing units. Meetings are coordinated by the commander and the IAAP Housing Manager and are held twice yearly (in fall and spring) at the IAAP Recreation Hall, Building 500-116.

10. Special Memoranda or Notices--If deemed necessary by the IAAP commander and the IAAP Industrial Engineer, notices of environmental actions can be produced and distributed within 24 hours to work areas and housing units at IAAP. Distribution of special notices to work areas will be coordinated with the Mason & Hanger plant manager, and distribution of flyers to housing units will be provided by the IAAP Housing Manager.

These techniques may be implemented depending upon the level of public interest and resources available.

## REFERENCES

Demographic and Economic Data, Burlington Area Development Corporation, Box 1024, Burlington, IA 52601

Draft Final Feasibility Study Iowa Army Ammunition Plant:  
Former Line 1 Impoundment and Line 800 Pink Water Lagoon, August 1989. Dames and Moore, 7101 Wisconsin Ave., Bethesda, MD 20814

REM IV Remedial Planning Activities at Selected  
Uncontrolled Hazardous Waste Sites--Zone II, Environmental Protection Agency Hazardous Site control Division, Final Public Involvement Plant, Iowa Army Ammunition Plant, November 1989.

U.S. Army Toxic and Hazardous Materials Agency (USATHAMA), 1990.  
Fact Sheet, Iowa Army Ammunition Plant, Installation Restoration Division.

U.S. Army Corps of Engineers (USACE). Draft Environmental Impact Statement, Proposed RDX Facility for the Iowa Army Ammunition Plan. Huntsville Division. October 1989.

U.S. Environmental Protection Agency (EPA). 1989. Fact Sheet, Iowa Army Ammunition Plant, Middletown, Iowa. EPA Region VII.



**APPENDIX A**  
**SITE MAPS**

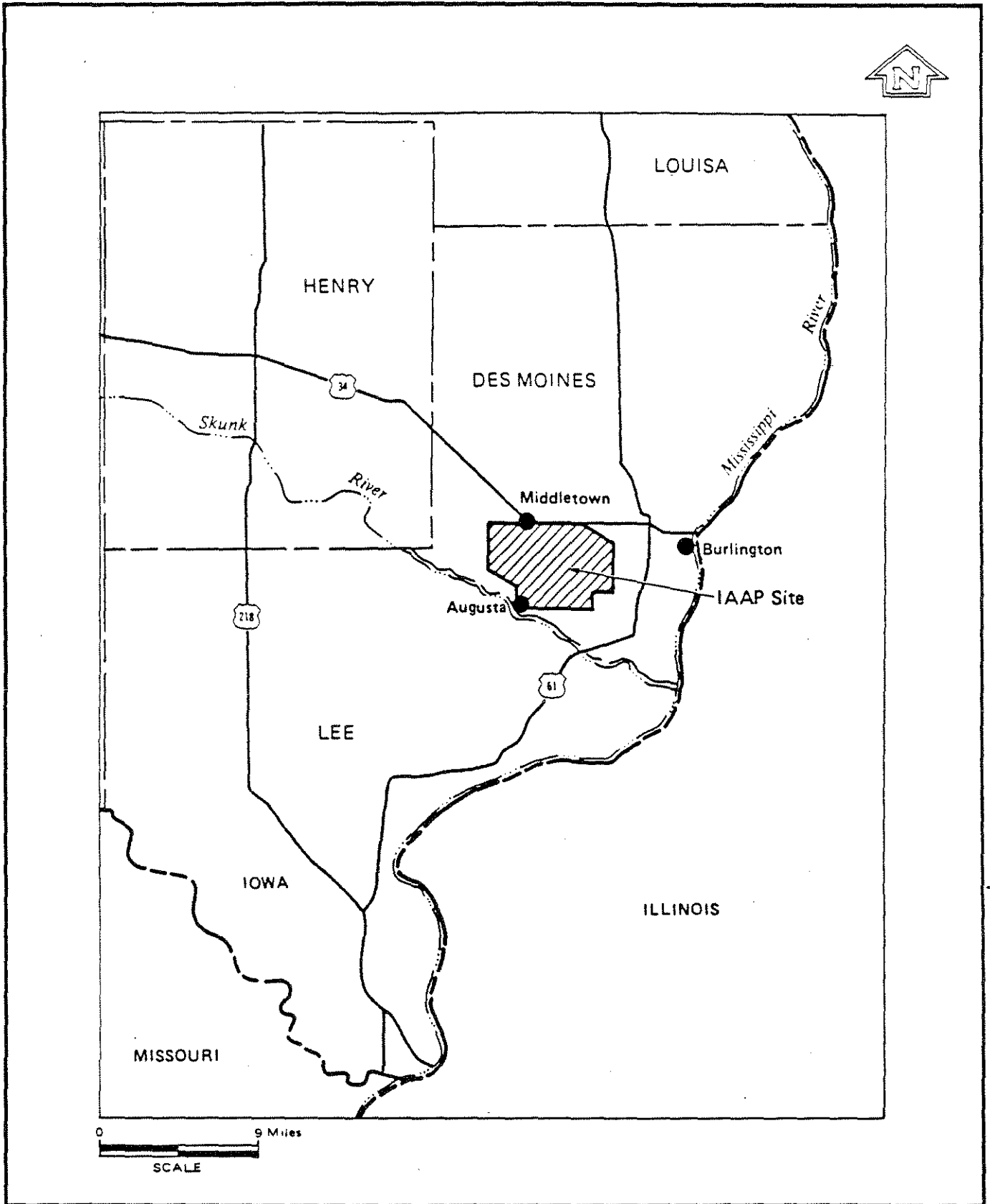


Figure A-1  
LOCATION OF IOWA ARMY AMMUNITION PLANT

SOURCE: DAMES & MOORE, 1989.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

# Site Vicinity Map Iowa Army Ammunition Plant Middletown, Iowa

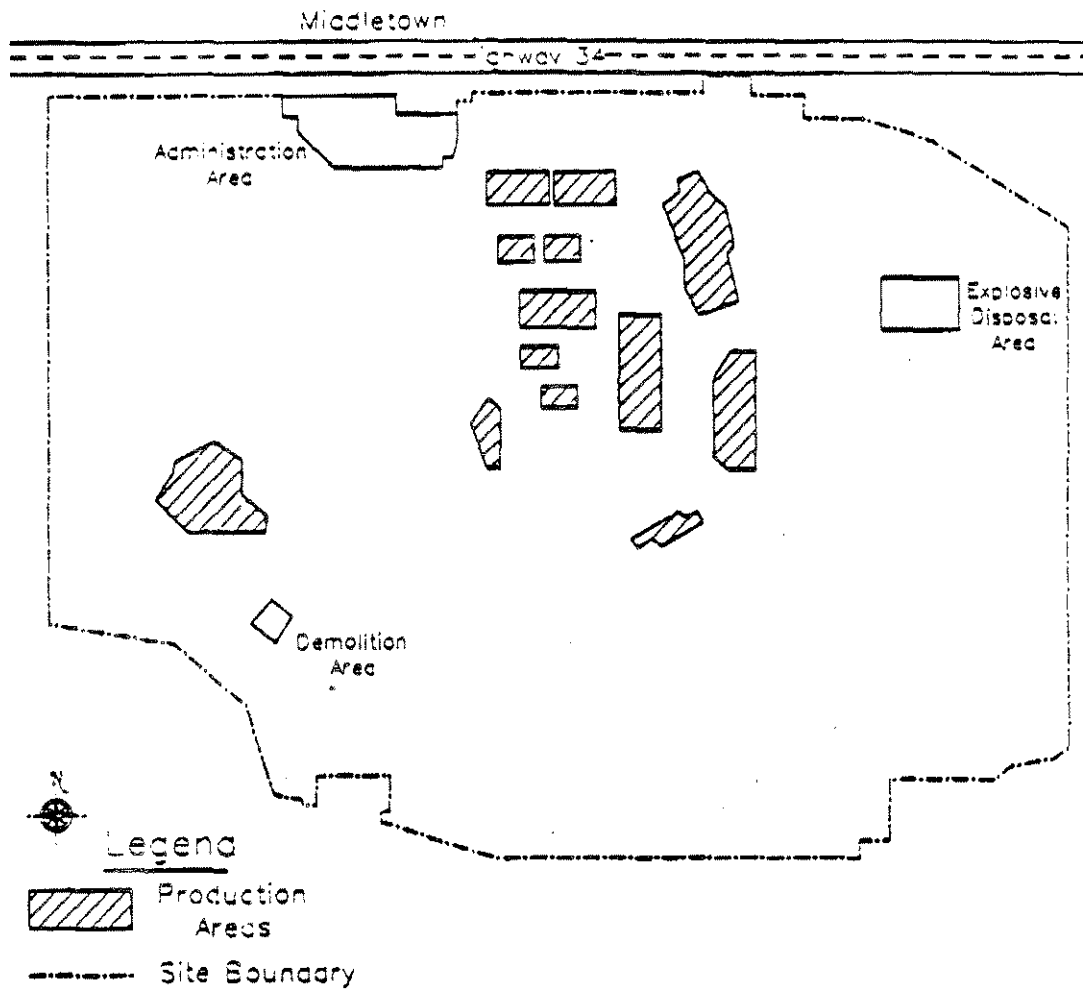
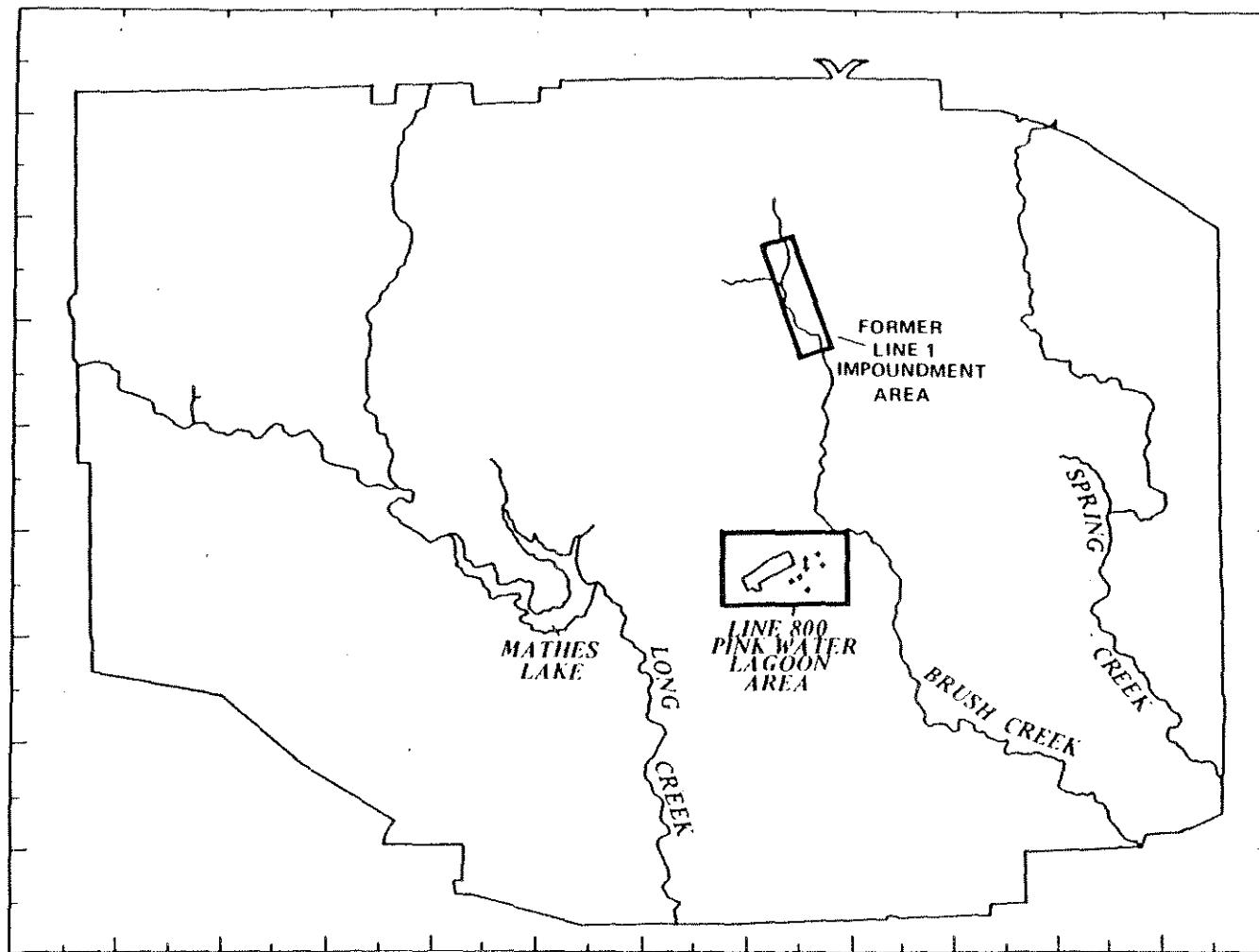


Figure A-2  
SITE MAP OF IOWA ARMY AMMUNITION PLANT

SOURCE: EPA, 1989.

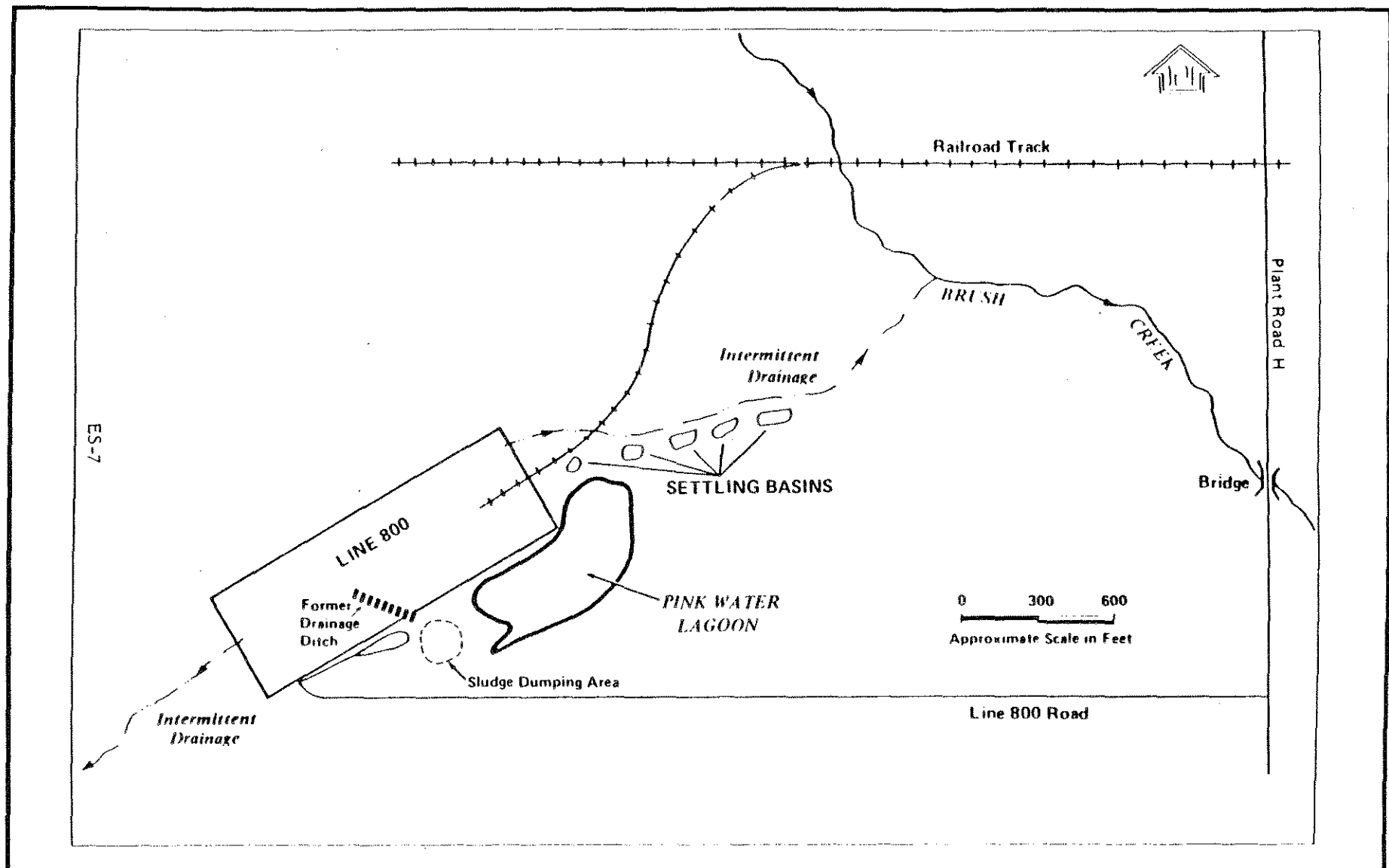
Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland

A-3



**Figure A-3**  
**INSTALLATION MAP SHOWING LOCATIONS OF FORMER**  
**LINE 1 IMPOUNDMENT AND LINE 800 PINK WATER LAGOON**  
**AREAS, IOWA ARMY AMMUNITION PLANT**  
SOURCE: DAMES & MOORE, 1989.

Prepared for:  
U.S. Army Toxic and Hazardous  
Materials Agency  
Aberdeen Proving Ground, Maryland



A- 4

**Figure A- 4**  
**LINE 800 PINK WATER LAGOON AREA**

SOURCES: DAMES & MOORE, 1989; AIRPHOTO, 1969; USGS TOPOGRAPHIC QUAD, 1976; BATTELLE, 1984.

Prepared for:  
 U.S. Army Toxic and Hazardous  
 Materials Agency  
 Aberdeen Proving Ground, Maryland

**APPENDIX B**  
**FACT SHEETS, NEWS RELEASES,**  
**AND INFORMATION PAPERS**

INFORMATION PAPER

SUBJECT: Iowa Army Ammunition Plant's (IAAP) Noise Abatement Program

1. Purpose. Outline the IAAP's and the Department of the Army's noise abatement program.

2. Facts.

a. The IAAP has an established program for abating noise emanative from the IAAP operations. Test firing is not to be conducted at the IAAP during periods of unfavorable weather conditions; i.e., cloud cover, high winds, approaching storms, thermal inversions, etc. Test fire activities are curtailed until such weather conditions have dissipated. The IAAP is acquiring meteorological equipment which will be installed near our Administrative area. Some of the equipment is on-site and will be installed soon. This equipment can be constantly monitored and documented for test fire situations. Another method used to contain test fire noise consists of use of acoustical test fire chambers. This method has previously been investigated and was determined to be cost prohibitive and could not be justified on the basis of the benefits to be obtained.

b. The Department of the Army, per AR 200-1, requires that every installation conduct a Installation Compatible Use Zone (ICUZ) study. This study is to protect the test firing mission of the installation and to achieve development of land-use around the installation that will be compatible with noise generated by future activities. IAAP's ICUZ study was revised 19 October 1988. This study was based upon an assessment performed by the U.S. Army Environmental Hygiene Agency (USAEHA). This assessment uses a computer model to define specific noise zones. These zones are defined by the percent of population that may be annoyed and a specific decibel level. The Zone I designation (less than 62) is considered acceptable for housing, schools, medical facilities and other noise sensitive land uses. The Zone II designation is considered normally unacceptable for noise sensitive land-use but is acceptable for industrial, manufacturing and agricultural land uses. Zone III is clearly unacceptable for noise sensitive land-use and is normally used for industrial applications. The following items and quantities (annual) were used to define the Zones for the ICUZ study: M718/M741 Main Charges-195, M718/M741 Booster-40, Hellfire Warhead-70, Copperhead-69, FASCAM Mines-296, I-TOW-496, and TOW-2 Warhead. Recent noise complaints were received during periods of TOW test firing. The 1988 TOW test fire data was compared to the above listed data and there was not much difference in CY 88 values versus above used data. The USAEHA ICUZ assessment reported that normally unacceptable (Zone II) and clearly unacceptable (Zone III) did not extend beyond the installation boundary. USAEHA did issue concern that annoyance and noise complaints could occur during certain meteorological conditions; i.e., when the winds blow in the direction from test fire area to the nearest installation boundary and/or during a temperature inversion resulting in an increase in the propagation of sound.

c. The IAAP has had, and is requesting again, an on-site extended monitoring study of noise generated from IAAP's test fire activities.

Leon D. Baxter/7130



PRESS RELEASE

RELEASED BY:  
Lieutenant Colonel Jack D. Conway  
Commander  
Iowa Army Ammunition Plant  
Middletown, Iowa 52638-5000

FOR MORE INFORMATION CALL:  
Darlene Norton  
319/753-7600  
Release No. 10-89  
17 July 1989

F O R I M M E D I A T E R E L E A S E

THE IOWA ARMY AMMUNITION PLANT (IAAP) IS LOCATED IN THE SOUTHEASTERN PORTION OF THE STATE OF IOWA APPROXIMATELY TEN MILES WEST OF THE MISSISSIPPI RIVER. THE PRIMARY MISSION OF THE IAAP HAS BEEN TO LOAD, ASSEMBLE, AND PACK AMMUNITION ITEMS. THE CURRENT OPERATING CONTRACTOR IS MASON & HANGER-SILAS MASON CO., INC. WASTES CURRENTLY PRODUCED AT THE IAAP CONSIST OF VARIOUS EXPLOSIVE WASTE AND MATERIALS CONTAMINATED WITH EXPLOSIVE. WASTEWATERS CONTAINING EXPLOSIVE MATERIAL (PINK WATER) ARE TREATED AND DISCHARGED UNDER A STATE PERMIT. THE IAAP HAS BEEN ONE OF THE LEADERS IN THE USE OF ACTIVATED CARBON FOR THE REMOVAL OF THE EXPLOSIVE PINK WATER UNDER STUDIES DATING BACK TO THE MID 1950'S. THE FIRST PINK WATER TREATMENT FACILITY WAS INSTALLED ON AN OPERATING LINE IN THE EARLY 1970'S. ALL OTHER OPERATING LINES USE THIS TECHNOLOGY WITH THE SIMILAR FACILITIES THAT ARE IN OPERATION. ASHES FROM INCINERATION OF EXPLOSIVE AND CONTAMINATED WASTE ARE ANALYZED, STORED, AND TRANSPORTED UNDER CURRENT ENVIRONMENTAL PROTECTION AGENCY (EPA) PERMITS. WASTE SOLVENTS FROM INDUSTRIAL AND LABORATORY OPERATIONS ARE RECYCLED. ANY SOLVENT MATERIAL THAT CANNOT BE RECYCLED IS DISPOSED BY A QUALIFIED VENDOR. THERE HAVE BEEN 117 GROUNDWATER MONITORING WELLS INSTALLED ON THE IAAP WITHIN THE PAST TEN YEARS AND HAVE BEEN SAMPLED WHOLLY OR IN PART ON AT LEAST FIVE OCCASIONS. SEVERAL AREAS LOCATED ALONG BRUSH CREEK HAVE BEEN IDENTIFIED UNDER THE DEPARTMENT OF DEFENSE (DOD) INSTALLATION RESTORATION PROGRAM AS REQUIRING FURTHER INVESTIGATION. THEY ARE THE FORMED LINE 1 IMPOUNDMENT AND THE PINK

WATER LAGOON AT LINE 800. THE DOD IS EXPECTED TO RELEASE SEVERAL REPORTS IN LATE SUMMER DENOTING THE EXTENT OF THE PROBLEM AND RECOMMEND CORRECTIVE ACTIONS FOR BOTH OF THESE AREAS. BOTH OF THE AREAS WERE USED TO TREAT PINK WATER PRIOR TO THE INSTALLATION OF THE INDUSTRIAL WASTE WATER FACILITIES. THE LINE 1 IMPOUNDMENT WAS CONSTRUCTED IN 1948 AND INTERMITTENT TREATMENT OF THE EXPLOSIVE WASTEWATER WAS CONDUCTED UNTIL 1957 WHEN IMPOUNDING WAS DISCONTINUED AND SOME OF THE ACCUMULATED SEDIMENTS WERE REMOVED. THE LINE 800 LAGOON WAS DUE IN 1943 AND USED UNTIL 1940. THE LAGOON NOW ONLY HOLDS ABOUT 0-2 FEET OF STANDING WATER. THE RESULTS OF GROUNDWATER MONITORING AND OTHER SAMPLING IN THESE TWO AREAS INDICATE THAT THERE IS NO HEALTH ENDANGERMENT OFF SITE. THIS WAS CONFIRMED WHEN PRIVATE DRINKING WATER WELLS AROUND THE PLANT WERE SAMPLED IN MAY 1985 AND NO CONTAMINATION WAS FOUND. THE INERT LANDFILL TRENCH NUMBER 5 AND LINE 6 GRAVEL FILTER BEDS AND DRAINAGE DITCHES, AS WELL AS THE INSTALLATION UNITS REGULATED UNDER RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) AND COMPLIANCE IS OUTLINED IN THE FEDERAL FACILITY COMPLIANCE AGREEMENT (FFCA) EXECUTED BETWEEN THE DEPARTMENT OF THE ARMY AND EPA ON 29 APRIL 1988. THE INERT LANDFILL TRENCH NUMBER 5 IS SLATED FOR AN EPA APPROVAL CLOSURE BY OCTOBER 1989 AND THE LINE 6 AREA WILL HAVE PRELIMINARY WORK COMPLETED BY OCTOBER WITH EPA APPROVED CLOSURE COMPLETED BY THE SPRING OF 1990.

PRESS RELEASE

RELEASED BY:  
Lieutenant Colonel Maurice E. Petterson  
Commander  
Iowa Army Ammunition Plant  
Middletown, Iowa 52638-5000

FOR MORE INFORMATION CALL:  
Darlene Norton  
319/753-7600  
Release No. 15-89  
28 November 1989

F O R I M M E D I A T E R E L E A S E

FEDERAL FACILITIES COMPLIANCE AGREEMENT

AS PART OF THE FEDERAL FACILITIES COMPLIANCE AGREEMENT SIGNED BETWEEN THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE IOWA ARMY AMMUNITION PLANT (IAAP), THE GRAVEL FILTER BEDS AND DRAINAGE DITCHES LOCATED IN PRODUCTION LINE 6 OF THE IAAP ARE TO HAVE SOIL ANALYSIS PERFORMED. IF THE SOIL CONTAINS LEAD ABOVE THE SPECIFIED EPA LEVEL THIS MATERIAL WILL BE REMOVED FOR APPROPRIATE DISPOSITION. LINE 6 HAS BEEN USED FOR THE MANUFACTURE OF DETONATORS. THE EXPLOSIVES USED FOR DETONATORS CONTAIN LEAD.

A CONTRACT HAS BEEN AWARDED TO THE ENVIRONMENTAL PROTECTION INSPECTION COMPANY (EPIC) AND PRELIMINARY WORK HAS BEGUN. NUMEROUS SOIL SAMPLES HAVE BEEN TAKEN FOR ANALYSIS AND MONITORING WELLS HAVE BEEN DRILLED. THE SAFETY HEALTH PLAN, QUALITY MANAGEMENT PLAN AND HAZARDOUS WASTE REMOVAL PLAN HAVE BEEN SUBMITTED AND REVIEWED BY THE CORPS OF ENGINEERS, HUNTSVILLE DIVISION (CEHND). EPIC HAS RETURNED TO IAAP TO TAKE ADDITIONAL SAMPLES. THE 90% DESIGN FOR CLEANUP WILL BE COMPLETED BY THE CEHND BY DECEMBER 22, 1989 AND WILL BE SUBMITTED TO THE EPA REGION VII.

FINAL CLOSURE ACTIVITIES ARE TO BEGIN BY APRIL 5, 1990.

THE U.S. ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY (USATHAMA) HAS PROGRAMMED \$994,000 FROM THE CALENDAR YEAR 1990 INSTALLATION AND RESTORATION PROGRAM FOR THE CLEANUP AND CLOSURE OF THE LINE 6 GRAVEL FILTER BEDS AND DRAINAGE DITCHES. THE SCHEDULED COMPLETION DATE FOR THIS CLOSURE IS JULY 5, 1990.

## FACT SHEET

Installation Restoration Division  
Mr. Peter J. Rissell  
AUTOVON 584-1504/3921  
15 October 1990

SUBJECT: Iowa Army Ammunition Plant (IAAP)

1. PURPOSE: To provide IAAP project summary and status to the Commander.
2. FACTS:

a. An Installation Assessment (IA) to assess IAAP environmental quality, conducted by the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA), was completed in January 1980. The IA identified four major contaminated areas: Line 1, Load/Assemble/Pack (LAP) Areas, Waste Lagoons, and Demolition Areas. Contaminants included ammunition primer mixes and the explosives Cyclotri-methylenetrinitramine (RDX), Cyclotetramethylenetetranitramine (HMX), and 2,4,6-Trinitrotoluene (TNT).

b. A Remedial Investigation (RI) to determine contamination levels and off-IAAP migration potential was conducted by Environmental Research Group from February 1981 to October 1982. The RI revealed that RDX surface water contamination migration was occurring in Brush and Spring Creeks and that localized RDX groundwater contamination was detected in the Pink Water Lagoon/Line 800 Area.

c. A follow-on RI to evaluate contamination levels and to characterize off-IAAP migration was conducted by Battelle from September 1982 to August 1984. The RI study concluded that explosives contamination was not found in surface or groundwater at the IAAP boundary near Spring Creek. However, RDX groundwater contamination levels exceeded human health criteria at the IAAP boundary near Brush Creek. The RI study could not conclusively prove localized explosives contamination in the Pink Water Lagoon. In addition, insufficient data was available to determine whether Brush Creek RDX contamination resulted from Impoundment Area sediment leachate or from surface discharges.

d. A multi-phased hydrogeologic assessment was conducted by U.S. Army Environmental Health Agency (USAEHA), at EPA Region VII's request, in response to health concerns over potential off-IAAP migration. Samples were collected from the IAAP boundary and off-IAAP to assess risk to the general public. Chemical results indicated that domestic supply and boundary wells were not contaminated with explosives or volatiles.

e. Sampling and analysis of all IAAP monitoring wells and selected surface water sites was performed by Dames & Moore from September 1985 to October 1985. The study found localized contamination within the Pink Water Lagoon Area where the explosives RDX, TNT, 2,4-Dinitrotoluene (24DNT), and 2,6-Dinitrotoluene (26DNT) exceeded criteria levels.

f. An Endangerment Assessment (EA) to assess present and future risks at the Line 1 Impoundment and Line 800 Pink Water Lagoon Areas was conducted by Dames & Moore from September 1985 to July 1989. Remedial Action Criteria for the Cancer Risk Levels (CRLs) of 10(-6), 10(-5), and 10(-4) were identified.

g. A Feasibility Study (FS) to evaluate Remedial Action Alternatives for the Line 1 Impoundment and Line 800 Pink Water Lagoon Areas was conducted by Dames & Moore from September 1985 to August 1989. Based on RDX and 26DNT contamination levels found at the two areas, remediation is recommended for the 10(-6) and 10(-5) CRLs. At the 10(-4) CRL, monitoring of Line 800 groundwater and Line 1 surface water, in lieu of remediation, is recommended.

h. A Federal Facilities Compliance Agreement (FFCA) defining the responsibilities for managing Resource Conservation and Recovery Act (RCRA) units was signed by IAAP and EPA Region VII in April 1988.

i. An assessment to evaluate contamination at the IAAP service station site (Petroleum Leak/Spill Area) was conducted by Dames & Moore from June 1989 to March 1990. Results from groundwater, surface water, soil, and sediment samples indicated localized hydrocarbon and aromatic contamination in the soil and shallow groundwater. Semi-annual monitoring of the ten wells is performed.

j. IAAP was designated as a proposed National Priority List (NPL) site in July 1989 with an Hazard Ranking System (HRS) score of 29.73. IAAP was listed as a Final NPL site in August 1990.

k. A RCRA Part B permit became effective in December 1989. The eight Solid Waste Management Unit sites identified in the permit will be incorporated into an RI/FS task scheduled for initiation in 1QFY91.

l. Site closure operations for the Line 6 Gravel Filter Bed, conducted by the U.S. Army Corps of Engineers (COE) District, Huntsville, was completed in August 1990. Capping of the Inert Landfill Trench 5, also conducted by COE, Huntsville, was completed in November 1989.

m. Drafting of an Interagency Agreement (IAG) was initiated in May 1990. Negotiation sessions with EPA Region VII were held during the summer of 1990. Final signing of the IAAP IAG was completed in September 1990.

**APPENDIX C**  
**REPRESENTATIVE NEWSPAPER ARTICLES**

# Who watches water?

*This is the second in a series of articles examining the possible contamination of Long Creek.*

By Anne Woehrlé

Who is responsible for watching the water?

Des Moines County residents, looking for explanations of mysterious health problems, have been asking state, county and federal officials for help testing their water supplies.

Among these residents are members of the Albert Maddox family, who suspect water on their farm at Skunk River Road near Long Creek may be connected to a series of health problems during the past year.

Dr. R.J. Cowles, director of the county public health center, said there is no county record of well testing, but "we have given out a lot of cards" for application for state testing.

The State Hygienic Laboratory, a branch of University Hospitals, Iowa City, will test private wells at the request of property owners. There are two catches, however. The tests can be expensive, especially if the owner of a well asks for a wide range of tests. And the lab technicians have to have a list of specific chemicals for which to run tests.

Des Moines County residents can obtain application forms from the county health center. If the well owner can supply the names of chemicals suspected in the water, the lab will send a sample bottle for each substance. Each bottle, Cowles said, is designed to test for a single chemical.

If the owner does not know of a specific substance that may be causing health problems, Cowles said, the lab will contact the owner's physician to discuss the possibilities.

The most common contaminants are nitrates (common ingredients of household chemicals) and bacteria.

Cowles said a county ordinance requiring testing of all wells would help officials investigate health problems. The Des Moines County health board last fall approved such an ordinance; county supervisors have yet to act on the proposed ordinance.

The Iowa Army Ammunitions Plant, which occupies land west of Burlington and south of Middletown, has been under scrutiny for handling of hazardous wastes. The plant produces the explosives RDX and TNT, both of which the U.S. Army considers hazardous. The state has no standards for those substances, according to commander Col. Kernan Nucci.

Nucci said the plant does not produce any other substances that might endanger human health. He said farmers who lease IAAP land use "the same herbicides as everyone else," which he suggested might turn up in water leaving plant property.

The state department of Water, Air and Waste Management holds records on water safety tests, including those from the army plant. WAWM has ordered all Iowa counties to tighten their regulations on water safety.

# 'Mystery' ills plague Long Creek residents

*(This is one of a series of articles concerning the possible contamination of Long Creek.)*

By Anne Woehrl

A patient with a mysterious illness can spend many months and many dollars looking for causes, as Vicki Maddox's family has recently discovered.

The Maddoxes, who live on the Skunk River access road beside Long Creek, have suffered a series of unexplained illnesses, some of them apparently related, during the past several years. Their search for explanations has, so far, turned up only vague answers.

They suspect their water supply may have something to do with it, but environmentalists and physicians are only beginning to understand the possible connections between pollution and disease. When a cause for persistent pain cannot be found, patients are often left to their own devices.

"We need somebody who can

coordinate environmental with medical facts," said Steve Hoambrecker, a state Department of Water, Air and Waste Management official who drew water samples from the Maddox farm last week. In response to a letter from the Maddoxes stating that five out of six family members had been treated for unnamed illnesses in the past year, Hoambrecker was sent to look for a possible cause.

DESCRIPTIONS of the symptoms didn't help much, he said. One surgeon who had worked with three members of the family told him this was "an abnormal case of benign tumors," and that Vicki Maddox had a paralysis, "but there didn't seem to be the medical evidence there usually is with strokes," Hoambrecker said.

For lack of a better place to start, Hoambrecker sent off samples for 123 tests on some of the

more common harmful water pollutants.

Dr. A.G. Lipede, the surgeon with whom Hoambrecker consulted, said he has tried "many diagnoses, but the confirmation tests have all been negative," in dealing with Vicki's medical problems. She has been treated for chronic headache and is now at Burlington Medical Center, recovering from a stroke that has left one side of her body partially paralyzed.

Vicki's husband, Albert Maddox, showed similar symptoms, including sudden loss of consciousness. Albert also had a complete mastectomy last October, because of a tumor that turned out to be benign, Lipede said. Other members of the family have had surgery for unexplained growths.

"There is a rash of illness in the family," Lipede said. "You begin to suspect a common agent. Verification (of the cause of illness) depends on isolating

that agent ... There are over 2,000 chemicals that we call pollutants."

BECAUSE of the gap between environmental and medical science, a few doctors are beginning to specialize in diagnosing illnesses in which pollution is suspected.

Dr. Dale Harding, Eagle Grove, has extended his practice in treating allergies to include hunting down environmental problems. So far, he said, doctors are only beginning to see patterns in diseases caused by the pesticides, insecticides, and industrial wastes dumped into Iowa's soil and waterways over the years.

"We're seeing the big role of chemicals now," he said. "I'm seeing more and more farmers that we have to take out of the fields." One common reaction to insecticides, he said, is a breakdown of neural transmitters in the brain, which can cause depr-

ession or paranoia. Farmers also have a higher incidence of cancer than other sectors of the population, he said.

OFTEN THE ONLY response to such an illness is treatment of the symptoms, he said. "If we can reproduce the symptoms then make it go away, in the office, then we can treat it," he said. Sometimes a cause can be found, if the doctor and the patient "ask the right questions."

Harding would like to see more research on environmental causes of illness, he said, "but there's more incentive not to do it than to do it." The universities are paid to find the benefits of farming chemicals; finding their evils "doesn't pay professors," Harding said.

Families like the Maddoxes, in other words, may wait a long time before doctors and environmentalists can figure out what causes their mysterious diseases.



# Carcinogens found in IAAP wells

By Dale Allison

Water samples taken from wells on Iowa Army Ammunition Plant property have turned up high levels of three hazardous chemicals, an official from the state department of Water, Air and Waste Management said Tuesday.

Pete Hamlin, director of WAWM field services, said "relatively high" levels of acetone, trichloroethane and methylene chloride were found in monitoring wells on the southern perimeter of the plant.

The samples were taken March 21 after Vicki Maddox, who lives south of the plant, wondered aloud to state and army officials if health problems her family was experiencing could be related to water the family was drinking.

While chemical samples from the army wells tested high, Hamlin said there was "nothing to concern us" about samples taken from three Maddox wells.

Scan tests searching for high levels of pesticides and heavy metals were administered by a special team of army scientists working with WAWM officials. The samples were split and separate laboratory analyses were conducted by the army and the state.

The high chemical levels have caused officials to wonder whether the samplings were accurate. Hamlin said the army and WAWM will administer separate tests to confirm the results. He hoped to have the new tests taken by the end of this week.

Officials at IAAP said they had been notified of the results, but until an official written report is received from Washington, they declined to comment. Darlene Norton, a public information officer, said the report is expected "sometime later this week or early next."

According to Hamlin, the tests indicated 130 parts per billion of methylene chloride — over 65

times the preferred level — which Hamlin called "priority compound, one of 129 we have to be very careful with." Hamlin said it was an "experimental" carcinogen, meaning it causes cancer in laboratory animals but not necessarily in humans.

High levels of methylene chloride can cause dermatitis, irritation to the eyes and upper respiratory system and skin burns. Hamlin also said it is a "mild narcotic and can cause headaches, numbness, a tingling in limbs and giddiness."

"Preferably, we'd like a zero amount in water," Hamlin said, but 1.9 parts per billion allows for one case of cancer per 1,000 population.

"That's based on a lifetime consumption of two gallons of water per day for 70 years," Hamlin said.

Trichloroethane tested at 63 parts per billion — over five times the acceptable level. Also a suspected carcinogen, TCE can

cause depression, liver and kidney damage. The state has established a 4.9 parts per billion level as acceptable.

The third chemical, acetone, tested at 3 to 5 parts per million. Hamlin said the state has no acetone standard, but that it should be avoided. Acetone can enter the body through inhalation or skin contact, as well as ingestion.

Among the list of Maddox family ailments are chronic headaches suffered by Vicki Maddox, unexplained tumors on three family members and another resident, and a son's kidney problems.

Hamlin said symptoms experienced by the Maddox family are similar to reactions caused by contact with the three chemicals.

WAWM can order the army to undertake "an extensive" groundwater monitoring program and develop a plan to deal with the pollution.

# Hazardous chemicals found in well

By WILLIAM RYBERG

Of The Register's Development Bureau

Tests have indicated there are high levels of hazardous chemicals in a well on U.S. Army property near the home of a rural Burlington family that suffers from mysterious health problems, a state official said Tuesday.

Peter Hamlin, an administrator with the Iowa Department of Water, Air and Waste Management, said the potentially dangerous levels of three industrial chemicals are polluting a monitoring well at the southern border of the Iowa Army Ammunition Plant.

None of the tests showed any contamination in three wells on the family's adjoining land. Hamlin said more extensive tests are planned because Army officials believe the testing of water samples from the Army well may have been flawed.

In the past 18 months, Albert and Vicki Maddox and three of their children have suffered from a variety of ailments, including non-malignant tumors, seizures, depression, infections and headaches. Vicki Maddox also has complained that she has lost part of the use of the left side of her body.

She has questioned whether the Army plant could be the source of some type of air, water or soil pollutant that might be responsible for the family's medical problems.

So far, Hamlin said, the tests have raised "more questions than they answer." He said tests on water samples from one monitoring well on the Army property showed high levels of these chemicals:

- Methylene chloride, which has been shown to cause cancer in laboratory animals and which can cause headaches, stupor and numbness in limbs, was present in the sample at 130 parts per billion. That concentration is about 85 times the acceptable limit of 1.9 parts per billion, according to Hamlin.

- Trichloroethane, a suspected carcinogen that also can cause kidney and liver damage, was present at the rate of 63 parts per billion, about 13 times the acceptable limit.

- Acetone, which can cause headaches, dizziness and skin problems, was present at 3 to 5 parts per million. No acceptable limit has been set, according to Hamlin.

Some of the health problems reported by the Maddoxes appeared to be in line with some symptoms linked to the chemicals, Hamlin said, but added that there "doesn't seem to be a direct correlation at this time" because the pollutants were not found in the Maddox wells. "But that doesn't mean there isn't [a correlation]," he said.

Hamlin said Army officials believe the tests might have been flawed because acetone was used to "flush" sampling equipment and because the other chemicals may be left from materials used in plumbing work on the well.

Maddox said Tuesday that she believes the Army is "just looking for an excuse" to explain away the problem.

Capt. David Versage, the plant's executive officer, said the Army had no comment on the tests.



Thomas Runyon (left) and Steve Hoambrecker take a water sample from a monitoring well at the Iowa Army Ammunition Plant Wednesday. Runyon is an environmental engineer for the

US Army. Hoambrecker is field engineer for the Iowa Department of Water, Air and Waste Management. They are watched by George Dreuer, University of Iowa chief organic analyst.

## Water may have been tainted in lab

Dale Allison  
High levels of three potentially dangerous chemicals and in groundwater samples taken from the Iowa Army Ammunition Plant March 21 in a very well have been introduced during the sampling process, according to spokesmen from three different laboratories.  
Officials from the Iowa Department of Water, Air and Waste Management and the Water Quality Engineering Division of the US Army took three samples of the water Wednesday to determine if dangerous levels of methylene chloride, trichloroethane and acetone do, indeed, exist in the groundwater.  
But according to Sharon Kneiss, a groundwater specialist with the Chemical Manufacturers' Association in Washington, D.C., at least two of the chemicals — methylene chloride and acetone — are common laboratory solvents and are used either to clean

test tubes or to extract water samples. The third, trichloroethane, is a common degreaser found in products such as Drano.

Spokesmen for the Environmental Protection Agency in Kansas City and McKesson EnviroSystems in San Francisco confirmed Kneiss' statement. None of the chemicals is produced at IAAP, according to Col. Kerman Nucci, plant commander.

Groundwater along IAAP's southern border is being tested to determine if it might be related to mysterious medical problems a neighboring family is experiencing. Curiously, ailments the Albert and Vicki Maddox family has complained about during the past 18 months closely parallel symptoms of long-term exposure to methylene chloride, trichloroethane and acetone.

Those chemicals have been shown to cause cancer, dermatitis, and chronic headaches,

among other maladies. The March tests indicated 85 times the acceptable level of methylene chloride and 13 times the acceptable limit of trichloroethane. The tests also showed three to five parts per million of acetone, a chemical for which neither the state nor the EPA has established an acceptable level.

Thomas Runyon, an environmental engineer from Aberdeen, Md., and Steve Hoambrecker, a WAWM field engineer, were members of the team that drew the March 21 samples and were back at IAAP Wednesday to confirm the presence of the chemicals and to look for traces of 30 other volatile compounds in groundwater along the plant's southern border.

Separate samples were taken that will be analyzed by both the state and the army. The laboratory results are not expected for two to three weeks.

Runyon acknowledged that

acetone may have been introduced to the samples at the test site. A metal bailer is used to retrieve samples from monitoring wells. Between samples, the bailer is rinsed three times: once with distilled water, once with acetone and again with distilled water.

Kneiss said a false positive reading of acetone could be achieved if the chemical was not allowed to dry from the bailer before the final distilled water rinse.

Methylene chloride is a common laboratory solvent used for extracting samples, said Charles Hensley, a Kansas City EPA lab technician, indicating a possible source of that contaminant.

Nobody was willing to hazard a guess on the source of the trichloroethane, however. "The Army's objective is to get to the bottom of this," Nucci said. "But we do not see a tie-in with the ill health of the Maddoxes — not yet."

# Groundwater testing expanded

By Bob Sogard

The search for contaminants in groundwater around the Iowa Army Ammunition Plant will be expanded later this month with testing of drinking water sources outside the IAAP.

This was reported Friday by Lt. Col. Kernan Nucci, IAAP commanding officer, who termed the checks a "follow-on effort to prior ground water sampling" in the plant area.

The sampling will be done May 28-30 by the Iowa Department of Water, Air and Waste Management as well as army specialists.

Merritt Van Lier, WAWM regional administrator from Washington, Iowa, said the samples he takes will be analyzed at the State Hygienic Laboratory, Iowa City. The Department of Army Environmental Hygiene Agency samples will be analyzed at a lab in Aberdeen, Md.

Nucci said the sampling is part of a program to determine whether there is any contamination resulting from migration of materials from the plant area. It will be done at places selected by WAWM, from one to two miles outside ordnance plant boundaries, but concentrated south of

the plant and north of the Skunk River.

"Individual well owners will be notified by the state in advance before sampling takes place. Samples will also be taken north, east and west of the plant boundary," Nucci added.

Van Lier said the water on the Albert Maddox farm on Skunk River Road won't necessarily be among those sampled because it's been sampled several times recently.

Maddox, his wife, Vicki, and two of their children have complained of many ailments, and had surgery on a number of tu-

mors they suspect was caused by water running off the federal reservation onto their farm on Skunk River Road. The 19,000-acre IAAP drains southeast.

Samples of water taken from wells inside the IAAP on March 21 showed dangerous levels of methylene chloride, trichloroethane and acetone. However tests were repeated May 1 because methylene chloride and acetone, both solvents used in the lab, may have contaminated the samples.

Results of the May 1 tests are expected to be available next week.

# New tests show IAAP groundwater is not dangerous

By Dale Alison

New tests of groundwater taken from the Iowa Army Ammunition Plant show no dangerous levels of three chemicals that concerned state Water, Air and Waste Management officials a month ago.

The tests were ordered after March 21 tests indicated high amounts of methylene chloride, trichloroethane and acetone were found in samples taken from monitoring wells along the southern border of the plant at Middletown. The chemicals have been shown to cause cancer and other diseases.

"I can only speculate," said Pete Hamlin, director of WAWM field services, "that the first set of samples was taken improperly or analyzed improperly." The three chemicals are common laboratory solvents — indicating a possible source of contamination.

"When you're talking about 'parts per billion' you have to be careful not to introduce false readings," Hamlin said. "Rinsing (testing equipment) improperly with methylene chloride two weeks ago can bias a sample."

The WAWM official said special precautions were taken when the second samples were drawn May 1 to ensure correct results.

Hamlin said traces of methylene chloride, trichloroethane and acetone were either not present or present but below detectable levels (less than one part per billion of a substance).

"But that does not mean we'll accept that as gospel," he said. "My goal is that we continue doing this until we get no conflicting information."

WAWM and army specialists are sampling wells around the ordnance plant this week to determine the purity of the groundwater in the area.

The quality of the water has been suspect since a family living on the southern border of the plant began experiencing mysterious illnesses two years ago. Coincidentally, the ailments members of the Albert Maddox family have complained of closely resemble those associated with long-term exposure to the three chemicals found in the March 21 samples.

# U.S. study cites Iowa arms plant as polluter

By FRANK SANTIAGO

Register Staff Writer

Operators of the sprawling munitions plant near Burlington were accused by a congressional committee Monday of polluting water and soil with TNT and other contaminants.

The Iowa Army Ammunition Plant, a 19,000-acre installation owned by the federal government, was among 16 U.S. Department of Defense "horror stories" cited by the committee for improperly disposing of hazardous wastes.

"Our investigation suggests that military facilities are among the worse violators of our hazardous waste laws," said Congressman John D. Dingell, a Michigan Democrat who is chairman of the House subcommittee on oversight and investigations, which prepared the report.

"They've caused extensive soil and ground water contamination both on their installations and off," he said. "The Defense Department's attitude varies between reluctant compliance to active disregard for the law."

Officials said the report follows six months of investigation.

Lt. Col. Jack Conway, the commander of the Iowa plant, had not read the subcommittee's report and had no comment on its conclusions, said Darlene Norton, a plant spokeswoman.

The plant, west of Burlington in the town of Middletown, was built by the

federal government during World War II. The plant now produces non-nuclear missile warheads and artillery shells. At one time, however, the plant was involved in the production of nuclear bombs.

The plant is operated for the government by a Lexington, Ky., company, Mason and Hanger-Blas Mason Co. Inc. A company spokesman was not immediately available for comment Monday.

The subcommittee's report says the EPA has visited the Iowa plant and found serious waste disposal problems, including "Class 1 violations," the most severe infractions. Analyses of water and soil samples from the Iowa plant found that they contained hazardous substances, including pesticides (DDT), explosives (TNT), lead and barium, the report said.

"Concentrations of explosive wastes such as TNT have been detected in groundwater and in the sediment and the surface soil of several creeks on the facility's grounds," the report said.

A 1985 EPA investigation concluded that "groundwater and surface water may have contaminated nearby water and soil, the report said."

Please turn to Page 2A

## Iowa plant among major polluters

### PLANT

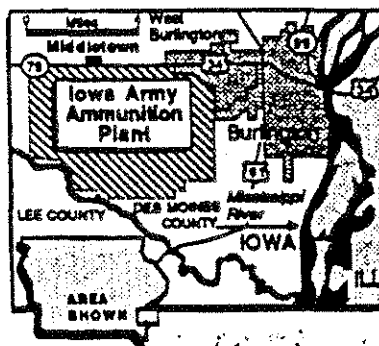
Continued from Page One

agency cited the plant for failing to submit adequate groundwater monitoring plans, according to the congressional subcommittee.

In July 1985, leaky drums were found at the plant, the report said. But the contents of the drums were not identified.

Congressional investigators said waste produced at the plant included sludges from processing explosives, carbon that had been used to treat water used in processing the explosives, solvents and ash from incineration of plant wastes.

According to the subcommittee,



"the enforcement process isn't working at all" at the Defense Department sites.

The subcommittee report blamed

the U.S. Justice Department for part of the problems. The report noted that the Justice Department said in a memorandum last year that "the EPA couldn't enforce hazardous waste laws against federal agencies and therefore tied EPA's hands."

"Because the Justice Department has opposed strong enforcement action against federal agencies that are polluters, these are the toughest cases for EPA and the state environmental agencies to enforce," said Dingell, the Michigan congressman.

Other Defense Department sites named by the committee included munition plants and military installations across the nation.

# Munitions plant says polluting days are over

By FRANK SANTIAGO

Register Staff Writer

The commander of the Iowa Army Ammunition Plant near Burlington said Tuesday the plant is in compliance with all rules and regulations concerning the disposal of hazardous wastes.

"Extensive amount of work has been done and needs to be done, but the bottom line is that we are in compliance now," said Lt. Col. Jack Conway.

The plant was among 16 U.S. Department of Defense installations declared major polluters Monday by a congressional subcommittee. The plant sits on 19,000 acres near Middletown, west of Burlington.

Congressman John D. Dingell, a Michigan Democrat and chairman of the House subcommittee on oversight and investigations, said the 16 military facilities have caused "extensive soil and groundwater contamination both on their installations and off."

The Iowa plant, built by the government in 1941, was said to have polluted water and soil with hazardous substances, including pesticides (DDT), explosives (TNT), lead and barium.

"The plant was a polluter from 1941 through the early 1970s, although it functioned with accepted practices of all industries at that time," Conway said.

"Since that time rules and regulations have stiffened up quite a bit and we now are operating in compliance."

He said earlier pollution at the plant site had been cleaned up, but "extensive work needs to be done."

He said four areas of the plant site

had been contaminated with explosive wastes.

"At this point, it's very difficult to detect it because the contamination has reached into the soil. We do have areas on the installation that we're monitoring," he said.

A statement issued at the plant said "no untreated contaminated water has been discharged to streams or lagoons since the early 1970s."

An agreement in handling the polluting wastes was reached at the plant in April between the U.S. Defense Department and Environmental Protection Agency, said the statement.

**APPENDIX D**  
**MEDIA LIST**



05/08/91

APPENDIX D

MEDIA LIST

Newspapers

Daily Newspapers

The Hawk-Eye  
P.O. Box 10  
800 S. Main St.  
Burlington, IA 52601  
(319) 754-8461/754-6824

Des Moines Register  
P.O. Box 957  
715 Locust St.  
Des Moines, IA 50304  
(515) 284-8000/286-2504

Mt. Pleasant News  
P.O. Box 240  
215 W. Monroe St.  
Mt. Pleasant, IA 52641  
(319) 385-3131/385-8048

Ft. Madison Democrat  
P.O. Box 160  
1226 Avenue H  
Ft. Madison, IA 52627  
(319) 372-6421

Weekly Newspapers

Bee/Donnellson Star  
P.O. Box 66  
West Point, IA 52656  
(319) 837-6722

New London Journal  
P.O. Box 116  
New London, IA 52645  
(319) 367-2366

Mediapolis News  
P.O. Box 548  
Mediapolis, IA 52637  
(319) 394-3174

The Shoppers Spree  
P.O. Box 661  
3208 Division St.  
Burlington, IA 52601  
(319) 752-4555/753-5167

The Des Moines County News  
204 Broadway  
West Burlington, IA 52655  
(319) 752-8328

Special Publications

Iowa Conservationist  
ATTN: Julie Sparks, Editor  
Iowa Department of Natural  
Resources  
Wallace Building  
Des Moines, IA 50319-0034  
(515) 281-5145

## APPENDIX D

## MEDIA LIST

(Continued, Page 2 of 4)

Special Publications (Cont'd.)

Iowa Resource Enhancement and  
Protection Act (REAP) Newsletter  
Iowa Department of Natural  
Resources  
Wallace Building  
Des Moines, IA 50319-0034  
(515) 281-8653

\*KILJ-AM and FM (ABC)  
281 Radio Rd.  
Mt. Pleasant, IA 52641  
(319) 385-3111

\*KBKB-AM and FM (NBC)  
P.O. Box 369  
Ft. Madison, IA 52627  
(319) 372-1241

Radio Stations

\*KBUR-AM/KGRS-FM (ABC)  
1411 N. Roosevelt Ave.  
Burlington, IA 52601  
(319) 752-2701

\*WOC-AM/KIIK-FM (NBC)  
3535 E. Kimberly Rd.  
Davenport, IA 52807  
(319) 344-7000

\*KCPS-AM (CBS)  
402 N. Main St.  
Burlington, IA 52601  
(319) 754-6698

\*WHO-AM/KLYF-FM (NBC)  
1801 Grand Ave.  
Des Moines, IA 50308  
(515) 242-3500

\*KDWD-FM  
P.O. Box 832  
Burlington, IA 52601  
(319) 752-5402

WAIK-AM/WGBQ (ABC)  
235 E. Main St.  
Galesburg, IL 61401  
(309) 342-3161

WGIL-AM/WAAG-FM  
P.O. Box 1227  
Galesburg, IL 61401  
(309) 342-5131

\*Stations listened to by survey participants.

## APPENDIX D

## MEDIA LIST

(Continued, Page 3 of 4)

Radio Stations (Cont'd.)

WVKC  
 P.O. Box 154, Knox College  
 Galesburg, IL 61401  
 (309) 343-9940

Television Stations

\*KJMH, Channel 26 (Fox)  
 P.O. Box 982  
 200 Jefferson St., 4th Floor  
 Burlington, IA 52601  
 (319) 752-0026

KLJB, Channel 18 (Fox)  
 937 E. 53 St., Suite D  
 Davenport, IA 52807  
 (319) 386-1818

\*KWQC, Channel 6 (NBC)  
 805 Brady St.  
 Davenport, IA 52808  
 (319) 383-7000

\*WHBF, Channel 4 (CBS)  
 231 18 St.  
 Rock Island, IL 61201  
 (309) 786-5441

\*WQAD, Channel 8 (ABC)  
 3003 Park 16 St.  
 Moline, IL 61265  
 (309) 764-8888

WQPT, Channel 24 (PBS)  
 6600 34 Ave.  
 Moline, IL 61265  
 (309) 796-2424

KHQA, Channel 7 (CBS)  
 P.O. Box 905  
 Quincy, IL 62306  
 (217) 222-6200

WGEM, Channel 10 (NBC)  
 P.O. Box 80  
 Quincy, IL 62301  
 (217) 228-6600

WTJR, Channel 16  
 P.O. Box 3112  
 Quincy, IL 62305  
 (217) 228-1275

\*KTVO, Channel 3 (ABC)  
 P.O. Box 949  
 Kirksville, MO 63501  
 (816) 627-3333

\*Stations viewed by survey participants.

05/08/91

APPENDIX D

MEDIA LIST

(Continued, Page 4 of 4)

Cable Service

West Marc Cable  
3210 Division St.  
Burlington, IA 52601  
(319) 753-6571

Nationwide Cable (Advertising)  
321 Tama Building  
Burlington, IA 52601  
(319) 752-4437

**APPENDIX E**

**PROGRAM POINTS OF CONTACT**

## APPENDIX E

## PROGRAM POINTS OF CONTACT

Public Affairs Contacts

1. Department of the Army  
Office of the Chief of Public Affairs  
ATTN: OCPA  
Washington, DC 20310-1509  
(703) 695-5732
2. Commander  
U.S. Army Materiel Command  
ATTN: AMCPA-MR (Jan Finnegan)  
5001 Eisenhower Blvd.  
Alexandria, VA 22333-0001  
(703) 274-8013
3. Commander  
U.S. Army Armament, Munitions and Chemical Command  
ATTN: AMSMC-IN (Ray Gall)  
Rock Island, IL 61299-6000  
(309) 782-5838
4. Commander  
U.S. Army Toxic and Hazardous Materials Agency  
ATTN: CETHA-PA (Lori Simmers)  
Aberdeen Proving Ground, MD 21010-5401  
(301) 671-2556
5. Commander  
Iowa Army Ammunition Plant  
ATTN: PAO  
Middletown, IA 52638  
(319) 753-7600
6. L. Dale Armstrong, Community Involvement Coordinator  
EPA, Region VII  
PBAF  
726 Minnesota Ave.  
Kansas City, KS 66101  
(913) 551-7003 or 1-800-223-0425
7. Iowa Department of Natural Resources  
Chief of Information and Education  
ATTN: Ross Harrison  
Wallace Building  
Des Moines, IA 50319  
(515) 281-5973

05/08/91

APPENDIX E  
PROGRAM POINTS OF CONTACT

(Continued, page 2 of 5)

Technical Contacts

1. Department of the Army  
Environmental Office  
ATTN: CEHSC-E  
Washington, DC 20310-2600  
(703) 694-1163
2. Commander  
U.S. Army Materiel Command  
ATTN: AMCEN-A  
5001 Eisenhower Ave.  
Alexandria, VA 22333  
(703) 274-9106
3. Commander  
U.S. Army Armament, Munitions and Chemical Command  
ATTN: AMSMC-ISE-E (Dr. Henry Crain)  
Rock Island, IL 61299-6000  
(309) 782-1434
4. Commander  
U.S. Army Armament, Munitions and Chemical Command  
ATTN: ANSMC-ISE-E (Capt. Mike Leggieri)  
Rock Island, IL 61299-6000
5. Commander  
U.S. Army Armament, Munitions and Chemical Command  
ATTN: AMSMC-GCS (Joe Kang)  
Rock Island, IL 61299-6000
6. Commander  
U.S. Army Toxic and Hazardous Materials Agency  
ATTN: CETHA-IR-A (Derek Romitti)  
Aberdeen Proving Ground, MD 21010-5401  
(301) 671-3921
7. Commander  
U.S. Army Environmental Hygiene Agency  
ATTN: HSHB-ME-AS (Dave Daughdrill)  
Aberdeen Proving Ground, MD 21010-5422
8. Commander  
Iowa Army Ammunition Plant  
ATTN: CO-IAAP  
Middletown, IA 52635-5000  
(319) 585-7200

APPENDIX E  
PROGRAM POINTS OF CONTACT

05/08/91

(Continued, page 3 of 5)

9. Cecila Tapia  
EPA, Region VII  
Waste Management Division/Superfund Branch  
726 Minnesota Avenue  
Kansas City, KS 66101
10. Ken Herstowski  
EPA, Region VII  
RCRA-Iowa  
726 Minnesota Ave.  
Kansas City, KS 66101  
(913) 551-7058
11. James W. Callier  
EPA, Region VII  
RCRA-Iowa  
726 Minnesota Ave.  
Kansas City, KS 66101  
(913) 551-7058
12. Craig Berstein  
EPA, Region VII  
Federal Facilities Coordinator  
Federal Activities Section  
726 Minnesota Ave.  
Kansas City, KS 66101  
(913) 551-7688
13. Luetta A. Flournoy  
EPA, Region VII  
Chief, Iowa Section  
Waste Management Division  
726 Minnesota Ave.  
Kansas City, KS 66101  
(913) 551-7058
14. Darrel McAllister  
Iowa Department of Natural Resources  
Surface and Groundwater Protection Section  
Wallace Building  
900 E. Grand Ave.  
Des Moines, IA 50319  
(515) 281-8869



APPENDIX E  
PROGRAM POINTS OF CONTACT

05/08/91

(Continued, page 4 of 5)

15. Pete Hamlin  
Iowa Department of Natural Resources  
Chief, Air Quality and Solid Waste Bureau  
Wallace Building  
900 E. Grand Ave.  
Des Moines, IA 50319  
(515) 281-8852
16. Richard Bishop  
Iowa Department of Natural Resources  
Chief, Wildlife Section  
900 E. Grand Ave.  
Des Moines, IA 50319  
(515) 281-6156
17. Des Moines County Health Department  
ATTN: Charles Russell  
522 N. Third  
Burlington, IA 52655  
(319) 753-8217
18. Des Moines County Civil Defense Agency  
ATTN: Pat Wondra  
512 Main  
Burlington, IA 52655  
(319) 753-8206
19. Leon D. Baxter  
Industrial Engineer  
Iowa Army Ammunition Plant  
ATTN: SMCIO-IN  
Middletown, IA 52638  
(319) 753-7130
20. Floyd C. Laue  
Environmental Coordinator  
Mason & Hanger-Silas Mason Co., Inc.  
Iowa Army Ammunition Plant  
Middletown, IA 52638  
(319) 753-7538

APPENDIX E  
PROGRAM POINTS OF CONTACT

05/08/91

(Continued, page 5 of 5)

22. Keith Miller, Scientist  
Mason & Hanger-Silas Mason Co., Inc.  
Iowa Army Ammunition Plant  
Middletown, IA 52638  
(319) 753-7538
23. Housing Manager  
Iowa Army Ammunition Plant  
Middletown, IA 52638  
(319) 753-7605
24. Sam Sang, Environmental Engineer  
Huntsville Division  
U.S. Army Corps of Engineers  
ATTN: CESND-ED-CS  
P.O. Box 1600  
Huntsville, AL 35807  
(205) 895-5190

**APPENDIX F**

**SCHEDULE FOR INVOLVEMENT ACTIVITIES AT IAAP**



**APPENDIX G**

**LOCATIONS OF INFORMATION REPOSITORIES**

05/08/91

APPENDIX G  
LOCATIONS OF INFORMATION REPOSITORIES

Burlington Public Library  
501 N. 4th St.  
Burlington, IA 52601  
(319) 753-1647

Librarian: Joanne Guest

Hours: Monday through Thursday--9:00 A.M. to 9:00 P.M.  
Friday and Saturday--9:00 A.M. to 5:00 P.M.  
Sunday--Closed

Lobby Area, IAAP Administration Building  
Building No. 100-101  
IAAP  
Rural Route 1  
Middletown, IA 52638  
(319) 753-7130

Contact: Larry Johnson or Leon D. Baxter

Hours: Monday through Thursday--7:00 A.M. to 5:30 P.M.  
Friday through Sunday--Closed

Danville City Hall  
105 W. Shepherd St.  
Danville, IA 52623  
(319) 392-4685

Contact: Judy Brayton, City Clerk

Hours: Monday through Friday--8:30 A.M. to 12:30 P.M.  
1:30 P.M. to 5:00 P.M.

**APPENDIX H**

**LOCATIONS FOR COMMUNITY MEETINGS**

05/08/91

APPENDIX H  
LOCATIONS FOR COMMUNITY MEETINGS

Danville Community Building  
Adjacent to Danville City Hall  
105 W. Shepherd St.  
Danville, IA 52623  
(319) 392-4685

Contact: Judy Brayton, City Clerk  
Capacity: 100  
Lead Time: 3 weeks' advance notice requested  
Fees: Optional, decided by City Council  
Special Note: Not available on Mondays

Danville School Gymnasium  
419 Main St.  
Danville, IA 52623  
(319) 392-4223

Contact: Ron Bickford, Superintendent,  
Danville Community School District  
Capacity: 600 to 800  
Lead Time: 2 weeks' advance notice requested  
Fees: None  
Special Note: Not available during months of December, January,  
and February

New London Town Hall  
106 N. Division  
New London, IA 52645  
(319) 367-7707

Contact: Paula Turner, New London City Clerk  
(319) 367-7701  
Capacity: 120  
Lead Time: 2 weeks' advance notice required  
Fees: None



APPENDIX H  
LOCATIONS FOR COMMUNITY MEETINGS

(Continued, Page 2 of 2)

Burlington City Council Chamber  
400 Washington  
Burlington, IA  
(319) 753-8120

Contacts: W.G. Lawley, City Manager  
Kathleen Salisbury, City Clerk  
Capacity: 164  
Lead Time: 2 weeks' advance notice required  
Fees: None  
Special Note: Avoid scheduling meetings on Monday or weekend  
days; recommended facility use for Tuesday, Wednesday, Thursday,  
or Friday

IAAP Recreation Hall Auditorium  
Mason & Hanger  
IAAP  
Middletown, IA 52638  
(319) 753-7428

Contact: Connie Hutchcroft  
Capacity: 300  
Lead Time: 30 days' advance notice requested  
Fees: None  
Special Note: Movie screen available

**APPENDIX I**

**ELECTED OFFICIALS**

APPENDIX I  
ELECTED OFFICIALS

Federal Level

Senator Charles E. Grassley  
135 Hart Senate Office  
Building  
Washington, DC 20510  
(202) 224-3744  
FAX (202) 224-0473

ALSO

116 Federal Building  
131 E. 4th St.  
Davenport, IA 52801  
(319) 322-4331

Tom Harkin  
316 Hart Senate Office  
Building  
Washington, DC 20510  
(202) 224-3254  
FAX (202) 224-7431

ALSO

Federal Building, Room 314--  
B  
131 E. 4th St.  
Davenport, IA 52801  
(319) 322-1338

Congressman Jim Leach  
1514 Longworth House Office  
Building  
Washington, DC 20515  
(202) 225-6576

ALSO

306 F&M Bank Building  
Third and Jefferson St.  
Burlington, IA 52601  
(319) 752-4584

State Level

Governor Terry Branstad  
State Capitol Building  
Des Moines, IA 50319  
(515) 281-5211

State Senate

(Representing Des Moines, Senator  
Lee, and Henry Counties)

Senator Richard F. Drake  
420 Parkington Drive  
Muscatine, IA 52761  
(319) 263-2573

Senator Eugene S. Fraise  
Rural Route 1, Box 310  
Ft. Madison, IA 52627  
(319) 528-6176

Senator Mark R. Hagerla  
Rural Route 4, Box 125  
West Burlington, IA 52655  
(319) 752-0294

## APPENDIX I

ELECTED OFFICIALS  
(Continued, Page 2 of 5)State House of  
Representatives

(Representing Des Moines,  
Lee, and Henry Counties)

Representative Dennis M.  
Cohon  
Midtown Gardens #46  
Burlington, IA 52601  
Home: (319) 752-5057  
Work: (319) 753-2211

Representative Mark S.  
Shearer  
Rural Route 2, Box 35-L  
Columbus Junction, IA  
52738  
Home: (319) 728-7101  
Work: (319) 728-2413

Representative Clay R.  
Spear  
1914 River  
Burlington, IA 52601  
(319) 754-5273

Representative Gregory A.  
Spenner  
1303 Haynes Court #5  
Mt. Pleasant, IA 52641  
Home: (319) 385-7177  
Work: (319) 385-8728

Representative Philip L.  
Wise  
503 Grand Ave.  
Keokuk, IA 52632  
Home: (319) 524-3643  
Work: (319) 524-2542

Des Moines County

Des Moines County Board of  
Supervisors  
Courthouse  
Burlington, IA 52601  
(319) 753-8284

Members:  
Dale Anderson  
Dan Cahill  
Kent Selters

City of Burlington

Burlington City Council  
City Hall  
400 Washington  
Burlington, IA 52601  
(319) 753-8124

Council Members:  
Nancy Neafie, Mayor  
Jeff Heland, Mayor Pro Team  
Lowell Bauer  
Janet McCannon  
John Sandell  
W.G. Lawley, City Manager

City of West Burlington

West Burlington City Hall  
122 Broadway  
West Burlington, IA  
(319) 752-5451

APPENDIX I  
ELECTED OFFICIALS  
(Continued, Page 3 of 5)

City of West Burlington (Cont'd)

Richard Logan, Mayor

Members of City Council:

Steven Haggerla

Steven Nelson

Gary Scott

Richard Huston

Marsha Benga

City of Middletown

Middletown City Hall

P.O. Box 100

Middletown, IA 52638

(319) 752-8340

Arlan Walker, Mayor

Members of City Council:

Orin Asmus

Dan Huffman

William Walker

Cindy Wilson

Jeff Miller

City of Danville

Danville City Hall

105 W. Shepherd St.

Danville, IA 52623

(319) 392-4685

APPENDIX I

ELECTED OFFICIALS  
(Continued, Page 4 of 5)

Leroy L. Lippert, Mayor

Council Members:  
Harold Fraise  
William McGinnis  
Frain Wagner  
James Wolbers  
William Porter

City of New London

New London City Hall  
112 W. Main St.  
New London, IA 52645  
(319) 367-5623

Paul Lorber, Mayor  
103 Cypress Circle  
New London, IA 52645  
(319) 367-2731

Council Members:

Duane Griggs  
212 Sunset Dr.  
New London, IA 52645  
(319) 367-5308

Edward Marshall  
100 E. Linder  
New London, IA 52645  
(319) 367-2267

APPENDIX I

ELECTED OFFICIALS  
(Continued, Page 5 of 5)

City of New London  
(Cont'd)

Tony Wick  
106 Cypress Circle  
New London, IA 52645  
(319) 367-2357

John Willey  
302 S. Walnut  
New London, IA 52645  
(319) 367-2332

Jack Wilson  
205 Sunset Dr.  
New London, IA 52645  
(319) 367-2677

Other Officials

Richard Cosby  
Police Chief  
112 W. Main  
New London, IA 52645

Donald J. Bell  
City Attorney  
210 Sunset Dr.  
New London, IA 52645  
(319) 367-5227

Ronald Barron  
Sewer Superintendent  
112 W. Main  
New London, IA 52645  
(319) 367-5519

Utility Board Members:

Robert H. Dameron, Chairman  
107 Cypress Circle  
New London, IA 52645  
(319) 367-2416

Mark Westerbeck  
405 E. McKinley  
New London, IA 52645

Russell Harper  
312 Newland St.  
New London, IA 52645  
(319) 367-5436

**APPENDIX J**  
**CIVIC AND COMMUNITY GROUPS**



APPENDIX J  
CIVIC AND COMMUNITY GROUPS

Burlington/West Burlington

American Association of Retired  
Persons, Chapter No. 2923  
Elmyra Benhart  
712 Remick  
Burlington, IA 52601  
(319) 754-7227

American on Aging, Inc.  
Southeast Iowa  
Dennis Zegarac  
509 Jefferson  
Burlington, IA 52601  
(319) 752-5433

Alpha Omicron Chapter of Epsilon  
Sigma Alpha  
Ernestine Babcock  
427 Denmark St.  
Burlington, IA 52601  
(319) 752-8248

American Association of University  
Women  
Beverly Quirk  
2533 Sunnyslawn  
Burlington, IA 52601  
(319) 752-6227

American Business Women's  
Association  
Janet Johnson  
613 Brentwood Dr.  
West Burlington, IA 52655  
(319) 754-6511

American Cancer Society  
Des Moines County Unit  
Lorene Ellerhoff  
P.O. Box 225  
Burlington, IA 52601  
(319) 752-4008

American Heart Association  
Iowa Affiliate  
Michelle Moore  
F&M Bank Building, Suite 715  
Burlington, IA 52601  
(319) 754-7063

American Heart Association  
Iowa Chapter  
Bonnie Kendell  
2529 Cliff Rd.  
Burlington, IA 52601  
(319) 754-5939

American Heart Society  
R. "Jim" Cowles  
R.F.D. Box 242, Route 1  
Burlington, IA 52601  
(319) 752-1166

American Legion Post No. 52  
Ted Cockrell, Commander  
P.O. Box 57  
Weaver, IA 52658  
(319) 372-3788

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 2 of 9)

American Lung Association of Iowa Craig Redshaw 1025 Ashworth Rd., Suite 410 West Des Moines, IA 50265 1-800-362-1643	Baseball Association of West Burlington Bud Carruthers 313 W. Pennington West Burlington, IA 52655 (319) 754-6183
American Red Cross Des Moines County Chapter Brian K. Chip Rendinger P.O. Box 1337 Burlington, IA 52601	The Beehive Ron Brozone 1400 Mt. Pleasant Burlington, IA 52601 (319) 754-7944
Art Guild of Burlington Lois Rigdon P.O. Box 5 Burlington, IA 52601 (319) 754-8069/753-2661	Bel Canto Chorale Debbie Dittner 1127 Ash Burlington, IA 52601 (319) 753-6803
Association for Retarded Citizens Mary McAllister P.O. Box 172 Burlington, IA 52601 (319) 753-6692	Big Brother/Big Sister of Southeast Iowa Charles Gates 105 Valley St. Burlington, IA 52601 (319) 752-4000
Bar Association Matthew C. Warren 203 F&M Building Burlington, IA 52601 (319) 752-4537	Bike Burlington Bill Schwerin 1615 Elm Ct. Burlington, IA 52601 (319) 752-5715

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 3 of 9)

Birthright of Burlington  
Trudy Reusch  
1115 S. Main  
Burlington, IA 52601  
(319) 753-2702

Blackhawk Booster Club, Inc.  
Loren H. Walker  
910 Maple St.  
Burlington, IA 52601  
(319) 752-6346

Boy Scouts of America  
Southeast Iowa Council  
Breck Dokken  
3007 Flint Hill Dr.  
Burlington, IA 52601  
(319) 754-8431

Burlington Area Council of Churches  
Polly Rein  
417 West Burlington Ave.  
West Burlington, IA 52655  
(319) 754-6959

Burlington Business and Professional  
Women Organization  
Helen Berry  
P.O. Box 373  
Burlington, IA 52601  
(319) 754-6206

Burlington Business Association  
Tom Clayton  
P.O. Box 901  
Burlington, IA 52601  
(319) 752-0015

Burlington Northern Ladies  
Auxiliary No. 4  
Ruth Wells  
2209 Gilbert St.  
Burlington, IA 52601  
(319) 754-5983

Burlington Policy Auxiliary  
Blackhawk Unit No. 3  
Bambi Lee Orth  
728 Lewis St.  
Burlington, IA 52601  
(319) 753-5324

Burlington/West Burlington  
Chamber of Commerce  
Clayton Fulknier  
P.O. Box 6  
Burlington, IA 52601  
(319) 752-6365

Burlington Women's Club  
Margaret Rutherford  
418 Ruthella Dr.  
West Burlington, IA 52655  
(319) 752-3968

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 4 of 9)

C.B. Paddlewheeler  
Kenny Swan  
601 S. Roosevelt  
Burlington, IA 52601  
(319) 752-4023

Civic Music Association  
Bobby Wilson  
2429 Herman Ave.  
Burlington, IA 52601  
(319) 754-8461

Civic Newcomers, Inc.  
Joanne Schwarm  
818 White St.  
Burlington, IA 52601  
(319) 752-4814

Community Action Organization,  
Inc., Southeast Iowa  
Sharon Ford  
Memorial Auditorium, Third Floor  
Burlington, IA 52601  
(319) 753-0193

Conservation Board of Des Moines  
County  
Barbara Kinneer  
512 Main  
Burlington, IA 52601  
(319) 753-8260

Conservation Foundation of  
Des Moines County  
Glen Rossiter  
512 Main  
Burlington, IA 52601  
(319) 753-8260

Convention and Tourism Bureau  
Michael Gould  
P.O. Box 6  
Burlington, IA 52601  
(319) 752-6365

Dental Society of Des Moines  
County  
Kirk D. Massner, D.D.S.  
611 F&M Bank Building  
Burlington, IA 52601  
(319) 752-5494

Des Moines County/Municipal Office  
of Emergency Management  
Pat Wondra  
512 N. Main  
Burlington, IA 52601  
(319) 753-8206

Des Moines County Soil and Water  
Conservation District  
Sherman Smith  
704 S. 9th  
Burlington, IA 52601  
(319) 752-1828

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 5 of 9)

Downtown Burlington Business  
Association  
Tom Clayton  
P.O. Box 901  
Burlington, IA 52601  
(319) 752-6251

E.C. Blackmar Chapter No. 306,  
O.E.S.  
Carolyn Bouguet  
835 Curran  
Burlington, IA 52601  
(319) 754-4006

Fine Arts League  
Sue Dwyer  
2800 Garden Circle  
Burlington, IA 52601  
(319) 752-7526

Friends of the Library  
Cynthia Brown  
723 Lewis  
Burlington, IA 52601  
(319) 753-2514

Friends of Southeast Iowa  
Symphony  
Cleo Hassell  
2440 S. 3rd St.  
Burlington, IA 52601  
(319) 752-6151

Geneological Society of Des Moines  
County  
Linda Auwaerter  
1419 Division  
Burlington, IA 52601  
(319) 753-2083

Girl Scouts, Inc.  
Shining Trail Council  
Marcia Holsinger  
P.O. Box 814  
Burlington, IA 52601  
(319) 752-3639

Hetta Gilbert Jr. Circle  
Ronda Behrens  
P.O. Box 602  
Burlington, IA 52601  
(319) 752-6042

Hetta Gilbert Sr. Circle  
Ruth Ringland  
2512 River Dr.  
Burlington, IA 52601  
(319) 752-4043

Historical Society of Des Moines  
County  
Betty Beck  
1616 Dill St.  
Burlington, IA 52601  
(319) 753-2449

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 6 of 9)

Jaycees  
Brad Buhmeyer  
2623 Kirkwood  
Burlington, IA 52601  
(319) 754-8116

Junior Women's Club  
Julie Smith  
Ridgeview Dr.  
Burlington, IA 52601  
(319) 752-6464

Just Jazz  
Betty Shawgo  
2401 Surry Road  
Burlington, IA 52601  
(319) 753-0187

King's Daughters of  
Des Moines County  
Alice M.J. Young  
1307 N. 8th St.  
Burlington, IA 52601  
(319) 754-7279

Kiwanis Club, Burlington Noon  
Dick Weiss  
P.O. Box 15  
Burlington, IA 52601  
(319) 754-8461

Knights of Columbus  
Leo Ertz  
232 Columbus Dr.  
Burlington, IA 52601  
(319) 754-8541

Ladies Golf Association  
Erma Young  
719 Morningside Dr.  
Burlington, IA 52601  
(319) 752-7726

Lions Club, Burlington Noon  
Gib McKenzie  
203 N. 3rd St.  
Burlington, IA 52601  
(319) 754-7588

Lions Club of West Burlington  
Allen Motley  
2911 Madison Ave., Apt. 1  
West Burlington, IA 52655  
(319) 752-4523

March of Dimes of Southeast Iowa  
321 Tama Building  
Burlington, IA 52601  
(319) 752-8080

Moose Lodge No. 579  
James W. Waugh  
2529 Mt. Pleasant  
Burlington, IA 52601  
(319) 752-3957

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 7 of 9)

Municipal Band  
Michael Lachmitt  
632 McKinley Ave.  
Burlington, IA 52601  
(319) 752-1239

NAACP, Burlington Chapter  
Lynn Stinson  
P.O. Box 1194  
Burlington, IA 52601  
(319) 752-2942

National Association of Letter  
Carriers  
AFL-CIO, Branch 222  
Thomas L. Little  
P.O. Box 785  
Burlington, IA 52601  
(319) 394-3019

Optimists  
Ed Minard  
Rural Route 5, Box 431  
Burlington, IA 52601  
(319) 753-6561

Players Workshop  
Al Christensen  
510 Columbia  
Burlington, IA 52601  
(319) 752-5386

Preceptor Alpha Tao Chapter  
of Beta Sigma Phi  
Lois Wellman  
Rural Route 1, Box 14  
Yarmonth, IA 52660  
(319) 865-3521

Radio Club, Iowa-Illinois Amateur  
George E. Smyth  
1720 Barret  
Burlington, IA 52601  
(319) 752-7324

Retired Senior Volunteer Program  
(RSVP)  
Lorene Ellerhoff  
400 Washington  
Burlington, IA 52601  
(319) 753-8155

Rotary  
Scott Power  
321 N. 3rd St.  
Burlington, IA 52601  
(319) 754-6587

Southeast Iowa Association for  
Handicapped Children  
Julie Buckless  
2120 Highland Ave.  
Burlington, IA 52601  
(319) 754-7713

## APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 8 of 9)

## SCORE

B.L. Swords  
2110 Summer St.  
Burlington, IA 52601  
(319) 752-5104

## Sierra Club

R. "Jim" Cowles  
R.F.D. Box 242, Route 1  
Burlington, IA 52601  
(319) 752-1166

## Southeast Iowa Symphony Orchestra

Elaine Cedarquist  
118 Glendale Dr.  
Burlington, IA 52601  
(319) 752-2555/6440

St. Francis Continuation Care  
Center Auxiliary

Evelyn Trautner  
1821 River  
Burlington, IA 52601  
(319) 754-7924

## Stars and Stripes Chapter, NSDAR

Sally O'Riley  
Rural Route 5, Box 728  
Burlington, IA 52601  
(319) 752-6196

## Toastmasters

Russell Myatt  
Rural Route 4, Box 210D  
Marathon Acres  
Burlington, IA 52601  
(319) 754-6257

United Comm. Travelers  
of America

Arthur Weiler  
104 S. Woodlawn Ave.  
Burlington, IA 52601  
(319) 752-3876

## United Nations Association

Burlington Chapter  
Sally McMillan  
1825 Vogt  
Burlington, IA 52601  
(319) 753-1142

## United Way, Burlington Area

Daniel D. Lanshe  
214 1/2 N. 4th St.  
P.O. Box 842  
Burlington, IA 52601  
(319) 752-7831

## Visiting Nurses Association

Richard Lies  
1000 N. 5th St.  
Burlington, IA 52601  
(319) 753-6428



APPENDIX J

CIVIC AND COMMUNITY GROUPS  
(Continued, Page 9 of 9)

YWCA  
Sharon Gilbert  
2410 Mt. Pleasant  
Burlington, IA 52601  
(319) 753-6734

YMCA/YWCA  
Dan Dalzeil  
2410 Mt. Pleasant  
Burlington, IA 52601  
(319) 753-6734

Danville

Danville Lions Club  
Rick Querna, President  
Rural Route 2  
Danville, IA 52623  
(319) 392-8383

Danville Junior Women's Club  
Diana Klaus, President  
520 S. Main  
Danville, IA 52623  
(319) 392-8860

APPENDIX K

MAILING LIST

(This list is maintained by the IAAP PAO.  
For more information, please contact  
(319) 753-7600)

APPENDIX L

COMMUNITY INTERVIEW PARTICIPANTS

(This list is maintained by the IAAP  
PAO. For more information, please  
call (319) 753-7600.)

**RESPONSE TO EPA COMMENTS DATED 14 MARCH 1991**



REPLY TO ATTENTION OF

*Floyd - 20  
230/20/91  
5/22/91*

DEPARTMENT OF THE ARMY  
US ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY  
ABERDEEN PROVING GROUND, MARYLAND 21010-5401

1991 MAY 20 PM 4:35

May 7, 1991

M & H - S M C O



Public Affairs Office

Mr. Alan L. Wehmeyer, Deputy Director  
Waste Management Division  
U.S. Environmental Protection Agency  
Region VII  
726 Minnesota Avenue  
Kansas City, Kansas 66101

TO: MH-SM CO. PLT MGR.  
FM: GOR  
OFC OF REC: SMCIO - IN  
DATE 20 May 91 INITIALS POB  
INFO  NEC ACT   
REPLY REQ. \_\_\_\_\_ DATE REQ. \_\_\_\_\_  
REMARKS Cy to SMCIO-AO

Dear Mr. Wehmeyer:

Reference Interagency Agreement (IAG) effective December 10, 1990, and U.S. Environmental Protection Agency's January 15, 1991, schedule approval.

In accordance with Item 8 of above schedule, enclosed is the final Community Relations Plan. Your comments have been incorporated, and our written responses to each comment are enclosed. The document is now final.

Thank you for input on this document. Questions on this matter may be directed to Mr. Leon Baxter, Iowa Army Ammunition Plant Environmental Office, at (319) 753-7130.

Sincerely,

ELIZABETH A. SERGEANT  
Acting Chief  
Public Affairs Office

Enclosures

Copies Furnished (with enclosures):

- Commander, U.S. Army Armament, Munitions and Chemical Command, Attention: AMSMC-IN(R) (Mr. Ray Gall), Rock Island, Illinois 61299-6000
- Commander, Iowa Army Ammunition Plant, Attention: SMCIO-AO (Mr. Leon Baxter), Building 100, Middletown, Iowa 52638-5000

RC: DOC CONTROL	FILE	DATE:
M & H-SM CO., INC.	0001-525.4/4	5-21
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	Coord.	Info.
V. PRES. & P. MGR.		
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CONTROLLER		
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ARMY, S & H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MATERIEL		
MECHANICAL		
OPERATIONS		
PROG. MGMT.		
SUPPORT ACT.		
IS&S DEPT.		
LEXINGTON		

→ *w/2*

In accordance with the Interagency Agreement for Iowa Army Ammunition Plant, the following are the Army's responses to the written comments sent by the U.S. Environmental Protection Agency, Region VII, on March 14, 1991:

1. COMMENT: In the future, please submit documents in a "draft" form, not "draft final."

RESPONSE: It is the Army's opinion that "draft final" documents are not final. The report reviewed by your agency was not considered final, although your comment to rename that particular draft has been noted, and will be applied to future draft reports.

2. COMMENT: Please rename the document from Public Involvement and Response Plan to Community Relations Plan, in accordance with the Interagency Agreement.

RESPONSE: The reason the U.S. Army named the document the Public Involvement and Response Plan is because we want to involve the public, not just influence community opinion, which is what a Community Relations Plan suggests. We have re-titled the document, with PIRP as a sub-title.

3. COMMENT: Please note that the Community Relations Plan needs to be included in the Administrative Record.

RESPONSE: Document will be placed in the Administrative Record.

4. COMMENT: Page 1-2: Need to mention that the Community Relations Plan will be updated or amended on an as-needed basis.

RESPONSE: The following statement was added to page 1-3: "The PIRP will be updated or amended on an as-needed basis throughout the environmental investigation. A community survey will be conducted again following the final remedial action decision."

5. COMMENT: Page 1-10, para 3: Delete the last sentence in this paragraph and delete any references to the 10 -4 risk level.

RESPONSE: Last sentence in paragraph 3 was deleted, as well as the next full paragraph. The following text was inserted: "Following regulatory review, these alternatives will be presented to the public before a final Record of Decision (ROD) is made."

6. COMMENT: Page 1-11: It is not appropriate to list the Army's preferred alternative in this plan since the EPA has not yet completed review of the FS, and this document is not final.

RESPONSE: Page 1-11, first full paragraph was deleted.

7. COMMENT: Page 1-11, para 4: Change date that IAAP was proposed for inclusion to the NPL.

RESPONSE: Date has been changed to read "July 1989."

2-2-2  
IAAP comments

8. COMMENT: Page 2-13, Summary of Responses: Correct typographical error.

RESPONSE: Error has been corrected.

9. COMMENT: Page 2-39: Please add Ms. Hattie Thomas as a point of contact on Technical Assistance Grants.

RESPONSE: Ms. Thomas' name, address and phone number have been added to page 2-39.

10. COMMENT: Appendix E: Please add or correct the following entries:

a. James W. Callier is the new section chief for the RCRA Iowa section.

RESPONSE: Mr. Callier's name, address and phone number have been added to page E-3.

b. Please add a Superfund contact to Appendix E.

RESPONSE: Ms. Cecilia Tapia's name, address and phone number have been added to page E-3.

c. Please add the EPA Office of Public Affairs toll-free number.

RESPONSE: The telephone number has been added on page E-1.

11. COMMENT: Please remove Appendix K to protect citizen privacy, and insert a referral page in the Community Relations Plan.

RESPONSE: The Army has never kept this list in the final document that is released to the public. It was left in the draft version so the regulatory agencies can see who is on the list. A referral page has been inserted in the final document, and Appendix K will be maintained by the IAAP Public Affairs Office.

12. COMMENT: Please remove Appendix L to protect citizen privacy, and insert a referral page in the Community Relations Plan.

RESPONSE: The Army has never kept this list in the final document that is released to the public. It was left in the draft version so the regulatory agencies can see who is on the list. A referral page has been inserted in the final document, and Appendix L will be maintained by the IAAP Public Affairs Office.