

ENVIRONMENTAL ASSESSMENT FOR
CLOSURE OF DEACTIVATION FURNACE
RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO

Prepared by:

BAT ASSOCIATES, INC.
27801 EUCLID AVENUE, SUITE 450
EUCLID, OHIO 44132

Prepared for:

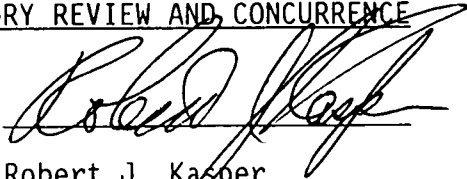
Ravenna Arsenal, Inc.
8451 State Route 5
Ravenna, Ohio 44266

APRIL 1990

ENVIRONMENTAL ASSESSMENT FOR
CLOSURE OF DEACTIVATION FURNACE
RAVENNA ARMY AMMUNITION PLANT
PORTAGE COUNTY, OHIO 44266-9297

SIGNATORY REVIEW AND CONCURRENCE

Signed

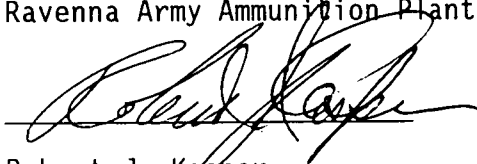


Date

19 April 90

Robert J. Kasper
Commanding Officer's Representative
Ravenna Army Ammunition Plant

Signed

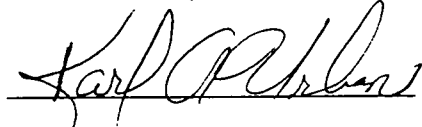


Date

19 April 90

Robert J. Kasper
Installation Environmental Coordinator
Ravenna Army Ammunition Plant

Signed



Date

18 April 1990

Karl A. Urban
Operations Security Officer
Ravenna Army Ammunition Plant

Signed



Date

17 April 1990

T.M. Chanda
Environmental Engineer
Ravenna Arsenal, Inc.

Signed



Date

4/17/90

H.R. Cooper
Plant Engineer
Ravenna Arsenal, Inc.

Signed



Date

4/18/90

Norm Wulff
Vice President & General Manager
Ravenna Arsenal, Inc.

TABLE OF CONTENTS

| <u>SECTION</u> | <u>DESCRIPTION</u> | <u>PAGE</u> |
|----------------|--|-------------|
| 1.0 | Purpose and Need for Action | 1 |
| 2.0 | Description of Proposed Action | 6 |
| 3.0 | Description of Alternative to Proposed Action | 7 |
| 4.0 | Probable Impacts of Proposed Action on Environment | 8 |
| 5.0 | Probable Adverse Environmental Effects Which Cannot be Avoided | 10 |
| 6.0 | Relationship Between Local Short Term Use of Man's Environment and Maintenance and Enhancement of Long Term Productivity | 10 |
| 7.0 | Irreversible and Irretrievable Commitments of Resources That Would be Involved in Proposed Action | 10 |
| 8.0 | Measures To Mitigate Adverse Environmental Effects | 10 |
| 9.0 | Agencies and Persons Consulted | 11 |
| 10.0 | Conclusion | 11 |

LIST OF FIGURES

| | | |
|----------|---|---|
| Figure 1 | General Location and Orientation of RVAAP | 2 |
| Figure 2 | General Map of RVAAP | 3 |
| Figure 3 | Location of Deactivation Furnace | 4 |
| Figure 4 | Plan of Deactivation Furnace Facility | 5 |

Attachment A - Concurrence Letter From The U.S. Fish and Wildlife Service

Attachment B - Concurrence Letter From The Ohio Historic Preservation Office

ENVIRONMENTAL ASSESSMENT FOR
CLOSURE OF DEACTIVATION FURNACE
RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO

1.0 PURPOSE AND NEED FOR ACTION

1. INTRODUCTION

The Ravenna Army Ammunition Plant (RVAAP) is an ammunition production and storage facility owned by the U.S. Department of Army and operated by Ravenna Arsenal, Inc. (RAI) under prime contract DAAA09-88-Z-0001. The plant is located at 8451 State Route 5, Ravenna, Portage County, Ohio. Figure 1 is a vicinity map which shows the general location of the plant. The RVAAP has been in operation since early 1940's.

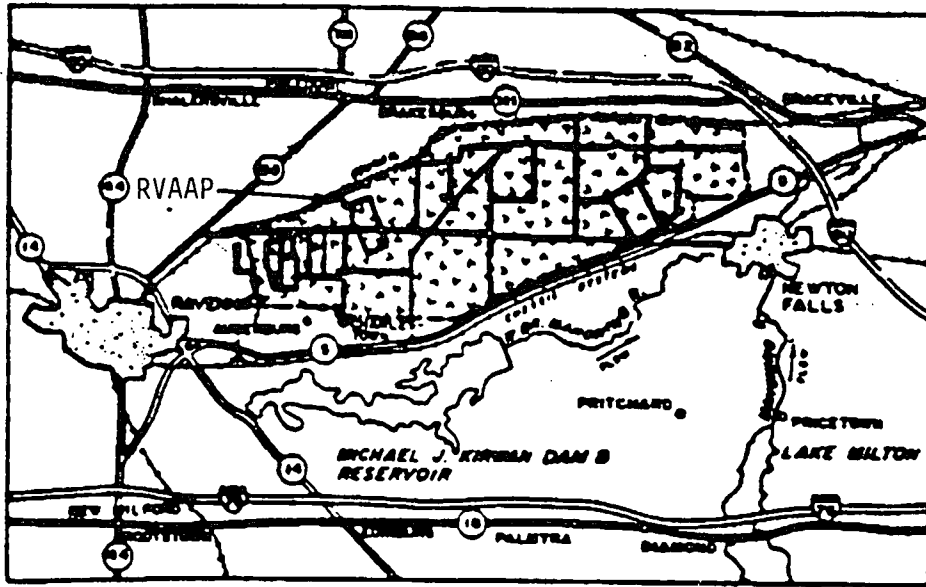
The RVAAP operates a deactivation furnace located in the Burning Ground approximately at the center of the facility (see Figures 2 and 3). The furnace is used intermittently for treatment of small munitions and other reactive items from RVAAP that have exceeded shelf life or are otherwise defective. The furnace was operated as a hazardous waste treatment facility with a RCRA identification number of OH 5210020736 (Line No. 1 on the RCRA Part A Permit Application).

The Deactivation Furnace is a #2 fuel oil fired rotary steel furnace drum (1-1/4" thick) which receives explosive filled components from a feed conveyor on one end in an enclosed control room. The drum contains flutes which move the components at a slow speed toward the burner end. The components reach an elevated temperature and the explosive burns or detonates. The ash residues including metal parts are discharged into a collection conveyor to a container for disposal. The furnace is located out of doors and is surrounded by earth-filled timber walls to protect operating personnel (See Figure 4).

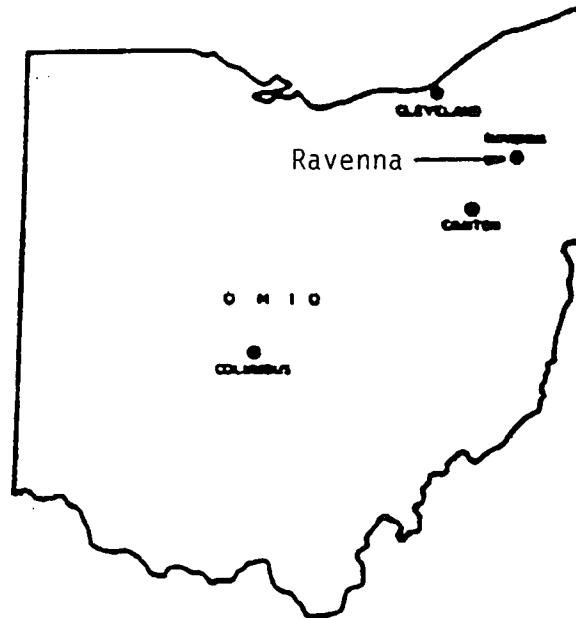
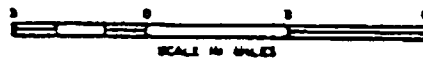
Explosive wastes (D003) which were or could have been treated in the furnace included: fuze and booster assemblies, ammunition primers, small arms ammunition, and small packets (no greater than 400 grains) of explosives and/or propellants that resulted in ash residues containing EP toxic metals, aluminum, tin, iron, magnesium, calcium silicates, chlorides, potassium, copper, strontium, antimony, and various thermally degraded organic compounds containing oxygen, nitrogen, sulphur, carbon, and hydrogen.

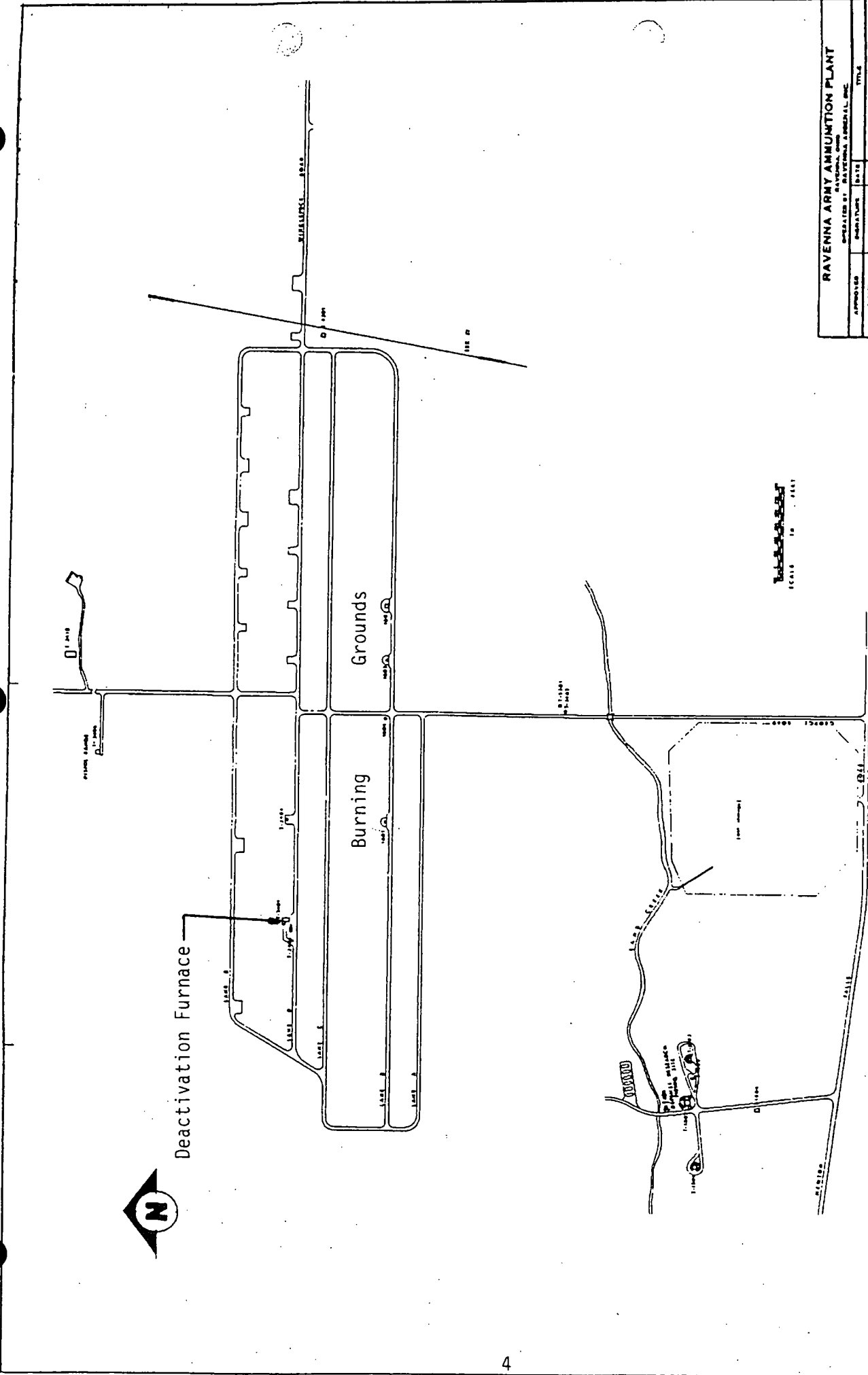
The RVAAP Deactivation Furnace is a RCRA treatment facility. The furnace must be closed in accordance with RCRA regulations because it cannot be upgraded to meet incinerator standards as required for Class A and B explosives (hazardous wastes). After closure as a RCRA facility, the furnace will be operated as a non-hazardous waste treatment facility for Class C explosive components (non-hazardous waste).

FIGURE 1
GENERAL LOCATION AND ORIENTATION OF RVAAP



LOCATION MAP





| | | |
|-------------------------------|-----------|------|
| RAVENNA ARMY AMMUNITION PLANT | | |
| APPROVED BY | SIGNATURE | DATE |
| DESIGNED BY | | |
| CHECKED BY | | |
| DATE | | |
| TITLE | | |
| PLOT - PLAN | | |
| BURNING GROUND & | | |
| DEMOLITION AREA | | |
| SCALE | 1500.28 | |

FIGURE 3 - LOCATION OF DEACTIVATION FURNACE

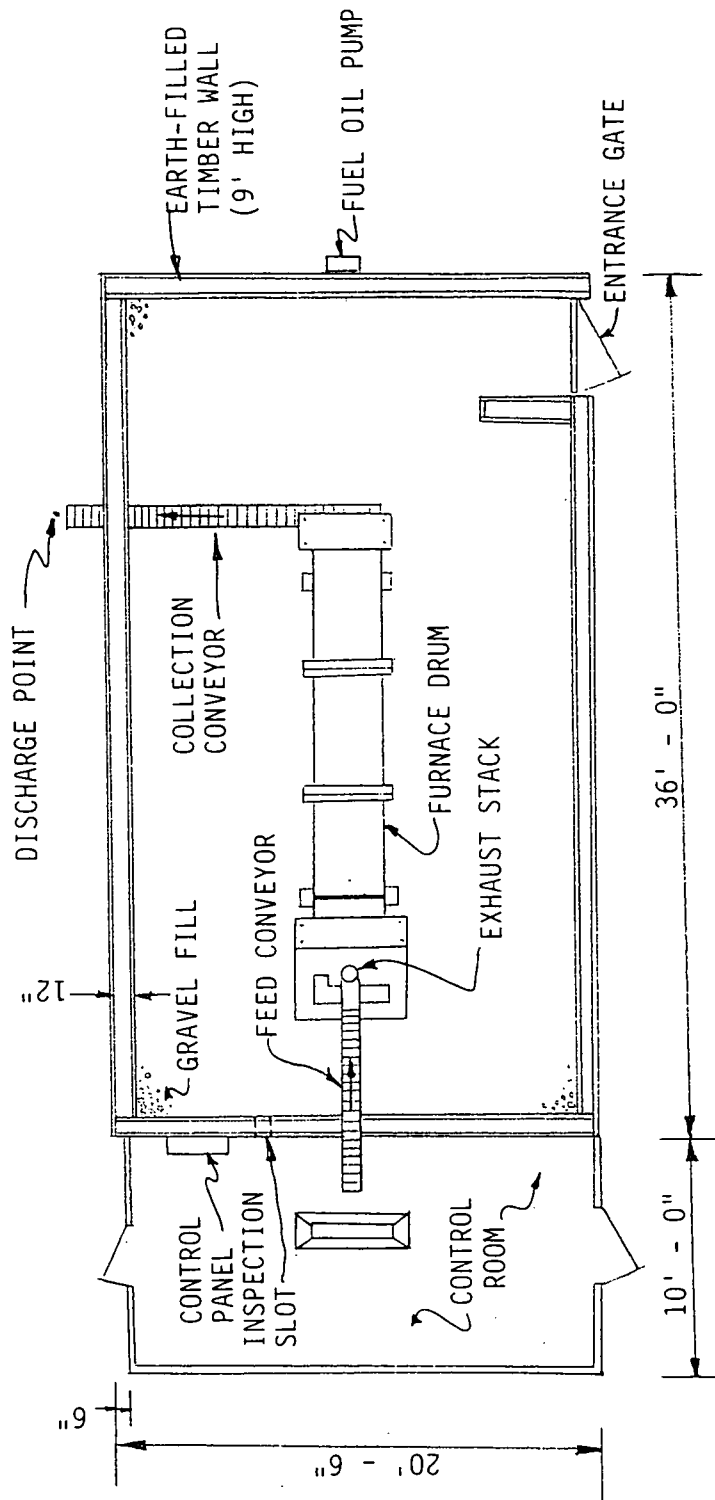


FIGURE 4 - PLAN OF DEACTIVATION FURNACE FACILITY
SCALE : 1/8" = 1' - 0"

2.0 DESCRIPTION OF PROPOSED ACTION

1. DESCRIPTION OF EXISTING DEACTIVATION FURNACE UNIT

The existing Deactivation Furnace unit consists of the following pieces of equipment:

- A feed conveyor.
- A furnace drum (burn chamber).
- A collection conveyor.
- An exhaust stack.
- Master control panel.
- A fuel oil pump with associated piping.

The entire Deactivation Furnace unit except the master control panel, fuel oil pump, and part of the feed conveyor is surrounded with a 9-foot timber wall filled with earth (see Figure 4). The master control panel is located in a 10' x 20' prefabricated corrugated steel building adjacent to the Deactivation Furnace barricade with an isolation timber wall in between. The master control panel controls the operation of the Deactivation Furnace unit including the fuel oil pump which is located immediately outside the northern timber wall of the barricade.

The Deactivation Furnace unit is supported by horizontal steel beams laid on the ground and by steel pipes erected from the ground. There are no concrete pads underneath or around the furnace unit.

2. DESCRIPTION OF PROPOSED ACTION

The purpose of the proposed action is to decontaminate, dismantle, or remove any contaminated furnace equipment, structures, and soils at and/or around the Deactivation Furnace. The proposed action will consist of the following activities.

- Remove ash residues present in the Deactivation Furnace and associated appurtenances including the exhaust stack, furnace drum, and collection conveyor. The removed ash residues will be sampled and analyzed to determine whether they are hazardous or non-hazardous waste and managed accordingly.
- Collect and analyze samples from interior surfaces of all timber walls and their earth fills to determine whether they are contaminated with hazardous constituents or explosive materials (TNT, 2,4-DNT, 2,6-DNT, and RDX), and if contaminated, whether they are hazardous or non-hazardous waste. If a timber wall and/or its earth fill are determined to be contaminated, they will be removed and disposed according to their waste classification (hazardous or non-hazardous) waste. Otherwise, they will be left in place

for continued use. Any removed timber wall or earth fill will be replaced with a new, clean wall or fill.

- Decontaminate the Deactivation Furnace and associated appurtenances including the exhaust stack, furnace drum, collection conveyor, and all associated piping by flushing the interior of each of the above equipment (piping to be flushed on exterior surfaces) with a pressure clean water rinse which is collected in 55-gallon drums. The final rinseate will be sampled and analyzed to determine whether the equipment is clean. If after three attempts of pressure water rinsing, the equipment is still not clean, the equipment will then be decontaminated by sand blasting followed by pressure water rinsing until it is established clean. All rinseate and sand blasting residues will be sampled and analyzed to determine whether they are hazardous or non-hazardous waste and managed accordingly.
- Collect and analyze soil samples from 17' x 9.25' grids at and/or around the Deactivation Furnace to determine the extent (vertical and horizontal) of contamination. The contaminated soils will then be excavated, removed, and disposed according to their waste classification (hazardous or non-hazardous).

All sampling and analysis will be conducted in accordance with USEPA's SW-846 methods.

3.0 DESCRIPTION OF ALTERNATIVES TO PROPOSED ACTION

In the process of determining the preferred alternative, other potentially feasible alternatives were examined. Alternative actions evaluated include:

1. DISMANTLE/REMOVE THE ENTIRE DEACTIVATION FURNACE UNIT AND CONTAMINATED SOILS AND PROPERLY DISPOSE OF THEM.

Under this alternative, the entire Deactivation Furnace unit including the feed conveyor, furnace drum, collection conveyor, exhaust stack, control room, control panel, fuel oil pump with associated piping, timber walls along with earth fills, and contaminated soil at and/or around the Deactivation Furnace unit will be dismantled/removed without prior decontamination. Samples will be taken from these removed equipment, structures, and soils, and analyzed to determine whether they are clean, contaminated but non-hazardous, or hazardous; and managed properly according to their waste classification. This alternative will meet the federal and state regulations pertaining to RCRA facility closure. However, the RVAAP will have to construct a new non-hazardous waste treatment facility for burning and detonation of Class C explosive wastes which are classified as non-hazardous. Economically, this alternative is not acceptable to RVAAP.

2. UPGRADE THE DEACTIVATION FURNACE UNIT TO MEET RCRA INCINERATOR STANDARDS.

This alternative will require preparation and submittal of a RCRA Part B permit application for the Deactivation Furnace unit and upgrading of the unit to comply with all requirements as stipulated in the Part B permit application, including all decontamination procedures to be performed under the proposed action.

Although implementation of this alternative will allow the Deactivation Furnace to be continuously used as a RCRA treatment facility for burning and detonation of Class A and B explosive wastes (hazardous), this alternative is eliminated for the following reasons:

- The deadline for filing a Part B permit application for incinerators (November 8, 1989) has passed.
- The cost for upgrading the system is too high.

3. NO ACTION

The "no action" alternative would maintain the Deactivation Furnace unit as it is. This will be in violation of the federal and state regulations as the Deactivation Furnace is a RCRA treatment facility and must be closed in accordance with the applicable RCRA regulations if the facility is to be ceased as a RCRA treatment facility. Therefore, the "no action" alternative is not acceptable.

4.0 PROBABLE IMPACTS OF PROPOSED ACTION ON ENVIRONMENT

1. AIR QUALITY

There may be some dust generated during excavation and transferring of contaminated soils at the job site. However, the dust generation is expected to be in a small quantity, localized, and of short duration; and therefore will have no significant impact on air quality. The only persons to be affected by dust are the workers who will wear proper protection against any potential dust hazards.

2. TRAFFIC

The access roads to the job site will have a slight increase in vehicle traffic during closure activities. This will be of short duration on an infrequent basis. The vehicle traffic may consist of flatbed trucks, pick-up trucks, and automobiles. The impact to the RVAAP operation as a result of this slight increase in vehicle traffic is expected to be very minimal and insignificant because the normal traffic on the access roads is very light. The impact can be minimized or eliminated by proper coordination between the RVAAP and the closure subcontractor.

3. NOISE

There may be some low-level noise generated as a result of equipment operations during closure activities. This noise will be of short duration on an infrequent basis. Furthermore, the noise will be limited to the job site area which is far away from the surrounding populations. Therefore, the proposed action has no significant impact on the noise environment.

4. GEOLOGY AND SOILS

Impacts on the local geology will be inconsequential. The contaminated soils at and/or around the Deactivation Furnace unit will be excavated and backfilled with clean ones. The topography will basically remain the same after backfill and grading. The backfilled areas will be seeded to prevent erosion of soil. Therefore, there will be no adverse impact on geology, topography, and soil conditions.

5. NATURAL RESOURCES

The proposed action will not involve cutting trees, destroying or affecting any established wetlands or critical wildlife habitat. The relative short duration and small confined area of closure activities will allow the natural environment to continue virtually uninterrupted.

6. LAND USE

The proposed action will not change land use at or around the job site. The land use at or around the job site will remain the same.

7. FISH AND WILDLIFE

The proposed action will not involve any tree cutting or modification of lakes or streams. The continued natural setting, short duration, and small confined area of closure activities will not adversely affect any endangered species (flora and fauna) and the wildlife habit. This conclusion of assessment was concurred by the U.S. Fish and Wildlife Service. A formal letter of concurrence is included in Attachment A.

8. SURFACE WATER

No bodies of water will be adversely affected by the proposed action. Some surface runoff may be effected by the excavation and grading operations. However, since the job site area is relatively flat and small, fierce runoff will not occur. During closure activities, measures will be taken if necessary to control and sustain runoff. Excavated areas will be seeded immediately after backfilling and grading to avoid erosion and increased storm water runoff. With the provisions for control of surface water runoff, water quality will not be adversely affected.

9. HAZARDOUS RISK/WASTE DISPOSAL

The proposed action will consist of sampling and analysis; and decontamination, dismantling, removal, and/or disposal of contaminated equipment, structures, and soils. These activities will generate approximately 1 cubic foot of ash residues, 1 to 2 tons of timber wastes, 46 cubic yards of contaminated soils, and 500 to 1,000 gallons of rinseate. These wastes will be properly managed and disposed of at a permitted hazardous waste treatment and disposal facility, a wastewater treatment plant, or a licensed sanitary landfill according to their

waste classification (hazardous or non-hazardous). All workers performing the proposed closure activities will wear gloves, protective clothes, and, if necessary, respirators to prevent any potential hazards from exposure to or contacting with the wastes. There will be no adverse impact on public and workers' safety and health.

10. ARCHEOLOGICAL/HISTORICAL

There are no known potential historical or archeological sites located within the vicinity of the proposed action. A formal letter of concurrence on this assessment from the Ohio Historic Preservation Office is included in Attachment B.

5.0 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The adverse environmental effects associated with the proposed action will consist of dust generation, slight increase in vehicle traffic, and noise generation. These effects will be of short duration, intermittent, localized, and having little or insignificant adverse impacts on the environment.

6.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

The local short-term use of man's environment during closure activities of the Deactivation Furnace will result in compliance with the federal and state regulations pertaining to RCRA facility closure, a decontaminated Deactivated Furnace unit for continued use as a non-hazardous waste treatment facility, and clean soil at and/or around the Deactivation Furnace unit. The natural setting will remain the same and continue to allow long-term productivity of the environment. The proposed action will not create any known or expected long-term adverse effect on the environment.

7.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION

The fuel utilized by the equipment and vehicles for the proposed closure activities is a natural resource which will be irreversible and irretrievable as a result of the proposed action.

8.0 MEASURES TO MITIGATE ADVERSE ENVIRONMENT EFFECTS

Proper measures will be taken to mitigate all adverse environmental effects which may occur during the proposed closure activities. The measures will include close coordination between the RVAAP and the subcontractor to mitigate the effect of slight increase in vehicle traffic; wearing protective clothes, and if necessary, respirators to mitigate effects of dust; and use of less noisy equipment for closure activities.

9.0 AGENCIES AND PERSONS CONSULTED

Attached to this document are copies of the letters from the Ohio Historic Preservation Office and U.S. Fish and Wildlife Service. Other agencies which will receive a review copy of this assessment are listed below. In addition, the Finding Of No Significant Impact (FONSI) will be published in the Kent-Ravenna Record Courier.

1. Local Agencies

- Portage County Regional Planning Commission
- Northeast Ohio Four County Regional Planning and Development Organization

2. State Agencies

- Ohio Environmental Protection Agency
- Ohio Historical Society (SHPO)

3. Federal Agencies

- U.S. Fish and Wildlife Service, Department of Interior
- Ravenna Army Ammunition Plant (Government and Contractor Office)

10.0 CONCLUSION

As a result of the Environmental Assessment, a Finding Of No Significant Impact (FONSI) will be published.

ATTACHMENT A

BAT

BAT Associates, Inc.

ENGINEERS • SCIENTISTS • PLANNERS

RECEIVED
U.S. SERVICE
REYNOLDSBURG, OHIO

27801 Euclid Avenue, Suite 450
Euclid, Ohio 44132
(216) 261-3724 • FAX (216) 261-2705

FEB 26 1990

February 21, 1990

Mr. Kenneth Multerer, Biologist
U.S. Fish and Wildlife Service
6950-H Americana Parkway
Reynoldsburg, Ohio 43068

RE: Deactivation Furnace Closure
Ravenna Army Ammunition Plant
Ravenna, Ohio

Dear Mr. Multerer:

BAT Associates, Inc. (BAT) has been contracted by Ravenna Arsenal, Inc. (RAI) to prepare an environmental assessment for closure of a deactivation furnace located at the Ravenna Army Ammunition Plant (RVAAP) near Ravenna, Ohio. I am writing to request your determination of potential effects on rare and endangered species due to proposed closure activities.

The RVAAP is an ammunition production and storage facility owned by the U.S. Department of Army and operated by RAI. The plant is located at 8451 State Route 5, Ravenna, Portage County, Ohio. Figure 1 is a vicinity map which shows the general location of the plant. The RVAAP has been in operation since early 1940s.

The RVAAP operated a deactivation furnace located in the Burning Ground approximately at the center of the facility (see Figures 2 and 3). The furnace was used intermittently for treatment of small munitions and other reactive items from RVAAP that had exceeded shelf life or were otherwise defective. The furnace is located out of doors and is surrounded by earth-filled timber walls to protect operating personnel (see Figure 4).

The RVAAP Deactivation Furnace is a hazardous waste treatment facility. The furnace must be closed in accordance with RCRA regulations because it cannot be upgraded to meet incinerator standards as required for burning and detonation of Class A and Class B explosives (hazardous wastes). After closure as a RCRA facility, the furnace will be operated as a non-hazardous waste treatment facility for burning and detonation of Class C explosive components (non-hazardous waste).

The purpose of the proposed action (furnace closure) is to decontaminate, dismantle, or remove any contaminated furnace equipment, structures, and soils at and around the Deactivation Furnace. The proposed action will include the following activities:

| | |
|-------|---------------|
| _____ | ROLLING STAMP |
| _____ | FOOTENBERGER |
| _____ | BOULTNER |
| _____ | LEWIS |
| _____ | LYNNERS |
| _____ | MCELVAN |
| _____ | CHAMBERS |
| _____ | BAKER |
| _____ | SHAWVER |
| _____ | ALL STAFF |
| _____ | FILE |
| _____ | RETURN TO |

Mr. Muterer
February 21, 1990
Page 2

1. Remove ash residues present in the Deactivation Furnace and associated appurtenances including the exhaust stack, furnace drum, and collection conveyor. The removed ash residues will be sampled and analyzed to determine whether they are hazardous or non-hazardous waste and managed accordingly.
2. Remove all timber walls and their earth fills if determined to be contaminated with hazardous constituents or explosive materials, and replace them with new, clean walls and fills. All removed timber walls and fills will be managed and disposed according to their waste classification (hazardous or non-hazardous waste).
3. Decontaminate the Deactivation Furnace and associated appurtenances including exhaust stack, furnace drum, collection conveyor, and all associated piping by flushing the interior of each of the above equipment with a pressure water rinse and, if necessary, by sand blasting. All rinseate and sand blasting residues will be disposed properly according to their waste classification.
4. Excavate contaminated soils at and around the Deactivation Furnace and dispose of them at a permitted security landfill if hazardous or at a licensed sanitary landfill if non-hazardous.
5. Excavate subsoil from a borrow area within the RVAAP (see Figure 2) to be used as fill or backfill materials for the excavated Deactivation Furnace areas. Place and compact the fill material on the excavated Deactivation Furnace areas. Cover both the borrow and backfilled Deactivation Furnace areas with topsoil, and grade and re-seed both areas.

Based on our environmental assessment, we have concluded that the proposed action will not adversely affect any endangered or threatened species of fish, wildlife or plants. If you agree with our conclusion, please countersign the enclosed copy of this letter and send the signed copy to me.

I appreciate your cooperation on this matter. If you have any questions or need additional information, please feel free to contact me at (216) 261-3724.

Mr. Muterer
February 21, 1990
Page 3

Very truly yours,

BAT Associates, Inc.



Jack R. Kuo, P.E.
Senior Environmental Engineer



Countersignature

Ken Multerer

3-6-90
Date

Enclosures: As stated

ATTACHMENT B

BAT

BAT Associates, Inc.

ENGINEERS • SCIENTISTS • PLANNERS

27801 Euclid Avenue, Suite 450

Euclid, Ohio 44132

(216) 261-3724 • FAX (216) 261-2705

February 21, 1990

RECEIVED FEB 26 1990

Ms. Catherine Stroup, Head
Review and Compliance, Historic Preservation
The Ohio Historical Society
1985 Velma Avenue
Columbus, Ohio 43211

RE: Deactivation Furnace Closure
Ravenna Army Ammunition Plant
Ravenna, Ohio

Dear Ms. Stroup:

BAT Associates, Inc. (BAT) has been contracted by Ravenna Arsenal, Inc. (RAI) to prepare an environmental assessment for closure of a deactivation furnace located at the Ravenna Army Ammunition Plant (RVAAP) near Ravenna, Ohio. I am writing to request your determination of potential effects on any known or listed archaeological or historic site due to proposed closure activities.

The RVAAP is an ammunition production and storage facility owned by the U.S. Department of Army and operated by RAI. The plant is located at 8451 State Route 5, Ravenna, Portage County, Ohio. Figure 1 is a vicinity map which shows the general location of the plant. The RVAAP has been in operation since early 1940s.

The RVAAP operated a deactivation furnace located in the Burning Ground approximately at the center of the facility (see Figures 2 and 3). The furnace was used intermittently for treatment of small munitions and other reactive items from RVAAP that had exceeded shelf life or were otherwise defective. The furnace is located out of doors and is surrounded by earth-filled timber walls to protect operating personnel (see Figure 4).

The RVAAP Deactivation Furnace is a hazardous waste treatment facility. The furnace must be closed in accordance with RCRA regulations because it cannot be upgraded to meet incinerator standards as required for burning and detonation of Class A and Class B explosives (hazardous wastes). After closure as a RCRA facility, the furnace will be operated as a non-hazardous waste treatment facility for burning and detonation of Class C explosive components (non-hazardous waste).

The purpose of the proposed action (furnace closure) is to decontaminate, dismantle, or remove any contaminated furnace equipment, structures, and soils at and around the Deactivation Furnace. The proposed action will include the following

Ms. Stroup
February 21, 1990
Page 2

activities:

1. Remove ash residues present in the Deactivation Furnace and associated appurtenances including the exhaust stack, furnace drum, and collection conveyor. The removed ash residues will be sampled and analyzed to determine whether they are hazardous or non-hazardous waste and managed accordingly.
2. Remove all timber walls and their earth fills if determined to be contaminated with hazardous constituents or explosive materials, and replace them with new, clean walls and fills. All removed timber walls and fills will be managed and disposed according to their waste classification (hazardous or non-hazardous waste).
3. Decontaminate the Deactivation Furnace and associated appurtenances including exhaust stack, furnace drum, collection conveyor, and all associated piping by flushing the interior of each of the above equipment with a pressure water rinse and, if necessary, by sand blasting. All rinseate and sand blasting residues will be disposed properly according to their waste classification.
4. Excavate contaminated soils at and around the Deactivation Furnace and dispose of them at a permitted security landfill if hazardous or at a licensed sanitary landfill if non-hazardous.
5. Excavate subsoil from a borrow area within the RVAAP (see Figure 2) to be used as fill or backfill materials for the excavated Deactivation Furnace areas. Place and compact the fill material on the excavated Deactivation Furnace areas. Cover both the borrow and backfilled Deactivation Furnace areas with topsoil, and grade and re-seed both areas.

Based on our environmental assessment, we have concluded that the proposed action will not adversely impact any known or listed archaeological or historic sites. If you agree with our conclusion, please countersign the enclosed copy of this letter and send the signed copy to me.

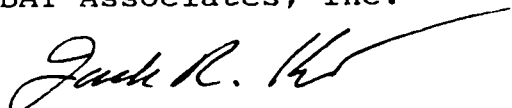
I appreciate your cooperation on this matter. If you have any questions or need additional information, please feel free to

Ms. Stroup
February 21, 1990
Page 3

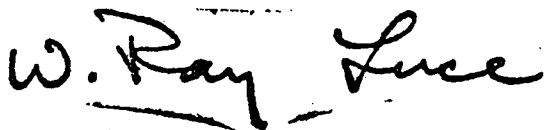
contact me at (216) 261-3724.

Very truly yours,

BAT Associates, Inc.



Jack R. Kuo, P.E.
Senior Environmental Engineer



Countersignature

APR 2 1990

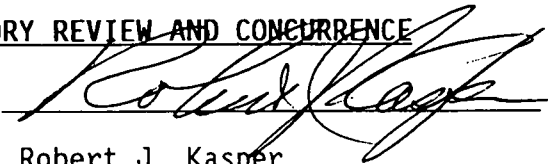
Date

Enclosures: As stated

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
CLOSURE OF DEACTIVATION FURNACE
RAVENNA ARMY AMMUNITION PLANT
PORTAGE COUNTY, OHIO 44266-9297

SIGNATORY REVIEW AND CONCURRENCE

Signed

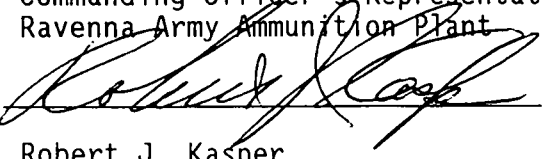


Date

19 April 90

Robert J. Kasper
Commanding Officer's Representative
Ravenna Army Ammunition Plant

Signed

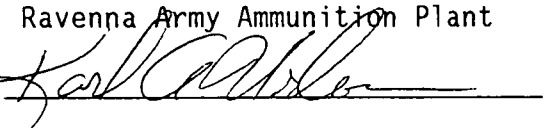


Date

19 April 90

Robert J. Kasper
Installation Environmental Coordinator
Ravenna Army Ammunition Plant

Signed

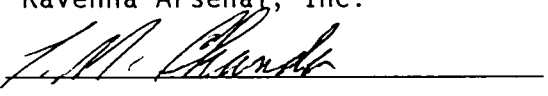


Date

18 April 1990

Karl A. Urban
Operations Security Officer
Ravenna Arsenal, Inc.

Signed

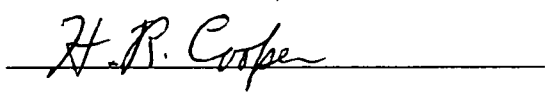


Date

17 April 1990

T.M. Chanda
Environmental Engineer
Ravenna Arsenal, Inc.

Signed

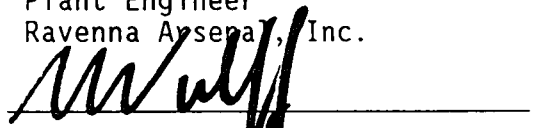


Date

4/17/90

H.R. Cooper
Plant Engineer
Ravenna Arsenal, Inc.

Signed



Date

4/18/90

Norm Wulff
Vice President and General Manager
Ravenna Arsenal, Inc.

FINDINGS OF NO SIGNIFICANT IMPACT (FONSI)

NAME OF ACTION: Closure of Deactivation Furnace, Ravenna Army Ammunition Plant (RVAAP), Portage County, Ohio.

DESCRIPTION OF ACTION: The RVAAP will close the Deactivation Furnace unit in its facility located near Ravenna, Ohio. The RVAAP Deactivation Furnace is a RCRA treatment facility which was used for burning and detonation of Class A and Class B explosives (hazardous wastes). The furnace must be closed in accordance with Federal and Ohio EPA RCRA regulations because it cannot be upgraded to meet RCRA incinerator standards as required for Class A and Class B explosives. After closure as a RCRA facility, the furnace will be operated as a non-hazardous waste treatment facility for Class C explosive waste (non-hazardous waste). The action will consist of the following activities:

- Removing ash residues present in the Deactivation Furnace and associated appurtenances including exhaust stack, furnace drum, and collection conveyor.
- Removing contaminated timber walls along with their earth fills and replacing with new clean ones.
- Decontaminating the Deactivation Furnace and associated equipment and piping.
- Excavating any contaminated soil at and/or around the Deactivation Furnace and backfilling the excavated areas with clean soils to be acquired locally within the confines of RVAAP.

The above activities will involve extensive sampling and analysis which will be conducted in accordance with USEPA SW-846 methods. All wastes generated will be properly managed and disposed of according to their waste classification (hazardous or non-hazardous). There will be no significant impact associated with the proposed action.

Alternatives to this action were evaluated, including:

1. Dismantle/remove the entire Deactivation Furnace unit and contaminated soils and properly dispose of them.
2. Upgrade the Deactivation Furnace unit to meet RCRA incinerator standards.
3. No action.

The above alternatives were eliminated due to technical or economical reasons, or failure to meet the Federal and Ohio EPA regulations.

CONCLUSIONS LEADING TO A FINDING OF NO SIGNIFICANT IMPACT: This action is in response to the Federal and Ohio EPA regulations for proper management in closing a hazardous waste treatment facility. No rare, endangered or threatened animal or plant species are present or known to be affected and no archaeological, historical or cultural significance is known to exist at the project site. Air and noise emissions will be localized and of short duration. The proposed action will have no effect on land use, geology, and natural resources. All wastes generated will be properly managed and disposed of at a permitted hazardous waste treatment and disposal facility, a wastewater treatment plant, or a licensed sanitary landfill according to their waste classification (hazardous or non-hazardous). An environmental assessment was prepared and was concluded that there will be no significant impact on human health or the environment.

ADMINISTRATION OF ENVIRONMENTAL DOCUMENTATION: This action raises no issues of national interest; therefore, this FONSI will only be given local public notice for a period of five working days from the date of its publication.

The Environmental Assessment which is the basis for this FONSI will be available for review and comment at the Ravenna Army Ammunition Plant's Building 1030 Reception Room between the hours of 8:00 a.m. and 4:00 p.m. Monday through Friday. The review and comments shall be forwarded by written letters to:

Commander
Ravenna Army Ammunition Plant
Attention: Installation Environmental Coordinator
8451 State Route 5
Ravenna, Ohio 44266

The review and comment period shall last 30 days commencing with the first day of the FONSI's public notice.



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149

Richard F. Celeste
Governor

cc: *T. Chanda*
file

April 6, 1990

Re: Ravenna Arsenal, Inc.
US EPA ID No.: OH5210020736
Ohio Permit No.: 02-67-0209
Partial Closure Plan

Ravenna Arsenal, Inc.
Attn: Mr. H. R. Cooper
8451 St. Rt. 5
Ravenna, Ohio 44266-9297

Dear Mr. Cooper:

A public notice acknowledging the Ohio EPA's receipt of a partial closure plan for Ravenna Arsenal, Inc., Ravenna, Ohio will appear the week of April 9, 1990, in The Record Courier, Ravenna, Ohio. The Director of the Ohio EPA will act upon the partial closure plan request following the close of the public comment period, May 15, 1990.

Copies of the partial closure plan will be available for public review at the Portage County District Library, 10482 South Street, Garrettsville, Ohio 44231-1116 and the Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087.

I may be contacted at (614) 644-2977, if you have any questions concerning this matter.

Very truly yours,

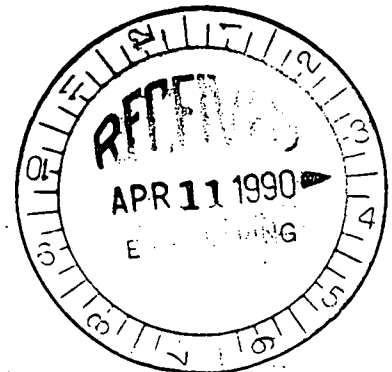
Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Solid & Hazardous Waste Management

TEC/dhs

cc: Lisa Pierard, U.S. EPA, Region V
Randy Meyer, OEPA, DSHWM, TAS
Ahmed Mustafa, OEPA, DSHWM, NEDO

2501R(35)



PUBLIC NOTICE

Portage County

RECEIPT OF HAZARDOUS WASTE PARTIAL CLOSURE PLAN

For: Ravenna Arsenal, Inc., 8451 State Route 5, Ravenna, Ohio 44266-9297,
U.S. EPA ID No.: OH5210020736, Ohio Permit No.: 02-67-0209. The Ohio
Environmental Protection Agency (Ohio EPA) is hereby giving notice of the
receipt of a Hazardous Waste Facility Partial Closure Plan involving a
Deactivation Furnace for the above referenced facility.

Copies of the facility's partial Closure Plan will be available for public
review at the Portage County District Library, 10482 South Street,
Garrettsville, Ohio 44231-1116 and the Ohio EPA, Northeast District Office,
2110 E. Aurora Road, Twinsburg Ohio 44087.

Comments concerning the partial Closure Plan should be submitted before May 15,
1990 to: Ohio EPA, Thomas E. Crepeau, Div. of Solid & Hazardous Waste Mgmt.,
Data Management Section, P.O. Box 1049, 1800 WaterMark Drive, Columbus, Ohio
43266-0149.