

**Ohio Environmental Protection Agency (OEPA)**

**And**

**Ravenna Army Ammunition Plant (RVAAP)**

**1988 Correspondences**



State of Ohio Environmental Protection Agency

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

28.15

K. 3512  
W. 155  
Reeper



Richard F. Celeste  
Governor

CERTIFIED MAIL

April 28, 1988

Re: CLOSURE PLAN  
PHYSICS INTERNATIONAL CO.  
(RAVENNA ARMY AMMUNITION PLANT)  
OH4210090003, 02-67-0550

Mr. Robert R. Summers  
Physics International Co.  
8451 St. Rt. 5  
Ravenna, Ohio 44266-9297

Dear Mr. Summers:

On November 25, 1987, Physics International Co. (Ravenna Army Ammunition Plant) submitted to Ohio EPA a closure plan for the pink water treatment facility located at 8451 St. Rt. 5, Ravenna, Ohio. Revisions to the closure plan were received on February 8, 1988. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that Physics International's proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of Physics International in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of the company's submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at Physics International meets the performance standard contained in OAC Rule 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The closure plan submitted to Ohio EPA by Physics International is hereby approved with the following modifications:

1. Within thirty (30) days of approval of the closure plan by Ohio EPA, Physics International shall submit to Don Easterling, Ohio EPA, Northeast District Office (NEDO), a personnel safety plan for handling of excavated soils. The plan shall discuss the potential hazards involved during flame treatment of soils, including the potential for detonation or generation of toxic fumes. Flame treatment of excavated soils may be conducted only after Ohio EPA approval of the safety plan. Other portions of the closure shall not be delayed by development and approval of the safety plan.

I certify this to be a true and accurate copy of the  
official document as filed in the records of the Ohio  
Environmental Protection Agency.

By: Mary Caven Date: 4-28-88

Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

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Mr. Robert R. Summers  
Page Two  
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2. The time allowed for flame treatment of excavated soils shall not exceed 90 days. Any soils which cannot be treated within this period must be sent off-site for treatment/disposal. Any untreated soils sent off-site which are characteristic hazardous wastes must be taken to a permitted hazardous waste facility.
3. Excavated soil shall be placed in roll-offs or other suitable containers or placed on an HDPE liner of sufficient strength to resist tearing. In either case, the excavated soil shall be covered with a suitable membrane to prevent entrance of rain and/or wind dispersal. All excavated soils shall be treated and/or disposed of within 90 days of excavation.
4. Flame treated soils which meet the criteria specified in closure plan item 3745-66-11(C) shall be returned to the excavation site upon completion of excavation/sampling activities. Flame treated soils which do not meet this criteria shall be stored as described in condition #3 and disposed of in a manner which meets the approval of Ohio EPA.
5. Soil samples from the periphery of the evaporation tank may not be collected using an auger soil sampler. Split-spoon and thin-walled samplers are acceptable.
6. The general description of landfill-type closure in section 4.0 does not conform to Agency requirements and is hereby removed from the approved closure plan.
7. Prior to flame treatment of excavated soils, Physics International will obtain any permits which may be required by the local air pollution control agency.
8. The owner/operator's and independent registered engineer's certifications of closure must follow the signature requirements found in OAC 3745-50-42 and the owner certification statements must include the exact wording found in OAC 3745-50-42(D).

Please be advised that approval of this closure plan does not release Physics International from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

Due to the fact that the Ohio EPA is not currently authorized to conduct the federal hazardous waste program in Ohio, your closure plan also must be reviewed and approved by USEPA. Federal RCRA closure regulations (40 CFR 265.112) require that you submit a closure plan to George Hamper, Chief, Waste Management Division, Technical Programs Section, Ohio Unit, USEPA, Region V, 5HS-13, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Caveni Date 4-28-88

Ohio Environmental Protection Agency  
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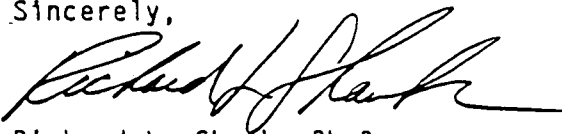
Mr. Robert R. Summers  
Page Three  
April 28, 1988

agencies is necessary prior to commencement of activities required by the approved closure plan. If closure activities will, of necessity, take longer than 180 days to complete in order to allow for a period of time for review and approval by USEPA, a longer closure period is hereby approved pursuant to OAC rule 3745-66-13(B) provided Physics International shall commence closure upon receipt of this approval by Ohio EPA or upon receipt of approval by USEPA, whichever occurs later. The closure period shall not exceed 180 days beyond the latter approval.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a registered professional engineer that the facility has been closed in accordance with the approved closure plan. The certification by the owner or operator shall include the statement found in OAC 3745-50-42(D). These certifications should be submitted to: Richard L. Shank, Director, Ohio Environmental Protection Agency, Attn: Thomas Crepeau, Program Planning and Management Section, Division of Solid and Hazardous Waste Management, P.O. Box 1049, Columbus, Ohio 43266-0149.

Sincerely,



Richard L. Shank, Ph.D.  
Director

RLS/PV/ara

cc: DSHWM Central File, Ohio EPA  
Rebecca Strom, USEPA, Region V  
Don Easterling, NEDO, Ohio EPA  
Dave Wertz, NEDO, Ohio EPA  
Paul Vandermeer, DSHWM, Ohio EPA

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 4-28-88

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Ohio Environmental Protection Agency  
ENTERED DIRECTOR'S JOURNAL

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**Physics International Company**  
Oil & Defense Systems Group

28.00

October 12, 1988

10/20/88  
✓  
JLR

Thomas E. Crepeau, Manager  
Ohio EPA/CO  
Division of Solid & Hazardous Waste Management  
P.O. Box 1049 1800 Watermark Drive  
Columbus, OH 43266-0149

Subject: Request For Time Extension Of Tank Closure Plan

Dear Sir:

Our Closure Plan has been proceeding as scheduled. Tank cleaning was completed, bore samples taken and the soil analysis performed. The results of the analysis indicated contamination to the third level of boring at one bore site. Our plan now requires additional sampling and analysis to determine the extent of contamination and removal of dirt depending on the analytical results.

Plans and schedules have been made to perform the additional borings and analysis. However, past experience indicates that enough time might not be available to accomplish a clean closure before our closing date of November 16, 1988.

We are requesting additional time of 60 days for completion of borings and analysis and 30 days for removal of dirt after we receive the analysis and determine the extent of contamination.

Thank you for your cooperation and, if additional information is required concerning this subject, please contact Paul Cross at (216) 297-3246.

Sincerely,

*Paul E. Cross*

Paul E. Cross  
Safety Specialist

PC/mp

cc: Don Easterling - OEPA/NEDO  
Don Heller

**State of Ohio Environmental Protection Agency**

**Northeast District Office**

2110 E. Aurora Road  
Twinsburg, Ohio 44087-1969  
(216) 425-9171



June 21, 1988

Ravenna Arsenal, Inc.  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, Ohio 44266

Attn: Thomas M. Chanda

Dear Sir:

On June 10, 1988, this writer met with you and conducted an inspection of the Ramsdell Sanitary Landfill (see attached report). It is noted that this solid waste disposal facility is located at 8451 State Route 5, Windham Township, Portage County.

No solid waste rule violations were observed during this inspection.

During our review of the landfill you asked several questions about your ground-water monitoring program. I will address your questions below:

- 1) Can we eliminate G.W. well #2 (second upgradient) from our groundwater program? We would recommend that you keep this well in your program for a future reference opposed to plugging it. We would not expect you to monitor both upgradient wells semiannually unless a need arises to do so.
- 2) How many times do we need to sample and report groundwater monitoring results in 1988? This facility will be required to submit semiannual monitoring results no later than June 15th and December 15th of each year to the Northeast District Office. It is noted that you have submitted your monitoring results for the first half of 1988 for wells #1, #3, #4 and #5.

We hope the above information proves helpful. Also, we appreciate your cooperation in operating this disposal facility in compliance with the solid waste rules.

Sincerely,

Donald C. Buehl

David O. Budd, R.S.  
Conservationist  
Division of Solid & Hazardous Waste Management

cc: T. Harcarik, DSHWM, CO w/a  
D. Wertz " NEDO w/a  
Portage CHD, Attn: Dr. Rupp. w/a  
Winham Twp. Trustees w/a

Richard F. Celeste  
Governor

62388

General Manager  
Ravenna Arsenal, Inc.  
FWD FOR  
☐ Information  
☐ Compliance as  
applicable  
☐ Reply NLT

STATE OF OHIO  
**Executive Department**

OFFICE OF THE GOVERNOR

*Columbus*

EXECUTIVE ORDER 88-46

WHEREAS, the State of Ohio is currently experiencing severe drought conditions; and

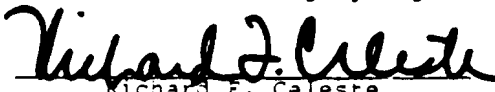
WHEREAS, during this period of drought the likelihood exists that kindled fires will burn out-of-control; and

WHEREAS, section 1503.18 of the Revised Code authorizes the Governor to restrict or eliminate the times and places for kindling fires if environmental conditions so warrant.

NOW THEREFORE, I, Richard F. Celeste, Governor of the State of Ohio, under the authority of section 1503.18 of the Revised Code do hereby determine that because of the severe statewide drought conditions, environmental conditions are such that kindled fires pose a great danger to the health, safety and welfare of the citizens of the State of Ohio. The following restrictions are effective immediately.

Excepting fires kindled in a plowed field, garden or public highway at a distance of not less than two hundred feet from any woodland, brushland or field containing dry grass or other inflammable material, no person shall kindle or authorize another to kindle a fire in the open air, outside the limits of any municipal corporation or land controlled by any railroad company for the purpose of burning wood, brush, weeds, grass or rubbish of any kind until further notice. Fires kindled by improperly disposing of a lighted match, cigar or other burning or glowing substance are kindled fires within the scope of this prohibition. Controlled fires for cooking purposes in state parks are exempt from this prohibition as authorized by state park managers.

IN WITNESS WHEREOF, I have hereunto subscribed my name and caused the Great Seal of the State of Ohio to be affixed at Columbus this       day of July, in the year of our Lord, nineteen hundred eighty-eight.

  
Richard F. Celeste  
Governor

ATTEST:

\_\_\_\_\_  
Secretary of State

FOR IMMEDIATE RELEASE

JULY 15, 1988

OFFICE OF THE GOVERNOR'S PRESS SECRETARY

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**GOVERNOR ISSUES BAN ON MOST OUTDOOR BURNING**

In response to severe drought conditions and a dry environment across the state, Governor Richard F. Celeste today issued an executive order banning most outdoor burning in Ohio.

The Governor announced the executive order at the State Fire Marshal Academy, where he taped radio and television public service announcements demonstrating the dangers posed by outdoor fires during this drought period. The PSAs will be sent to all Ohio television and radio stations in an effort to increase public awareness of these dangers.

Effective immediately, the ban applies to all fires kindled outside municipal limits for the purpose of burning wood, brush, weeds, grass or rubbish. Ohio EPA rules currently prohibit almost all open burning within municipal boundaries.

The ban also applies to fires kindled by improperly disposing of a lighted match, cigar or other burning substance. Specific exceptions to the ban are noted in the order, such as controlled fires for cooking purposes in state parks as authorized by state park managers.

Under the law, violation of the ban is a third-degree misdemeanor, punishable by not more than 60 days in prison and not more than \$500 in fines.

In addition, the Governor sent a letter to 1,300 fire chiefs across the state, notifying them of the burning ban and urging their continued cooperation in enforcing the ban and protecting Ohio lives and property.

# # #

Contact: Debra Phillips or Heidi Findley, (614) 466-5034.  
Todd Ambs, Dept. of Natural Resources, (614) 265-6791.  
Fred Alverson, Dept. of Commerce, (614) 644-8341.

1988 JUL 19 AM 11:02

RECEIVED  
ANNOUNCED





RICHARD F. CELESTE  
GOVERNOR

STATE OF OHIO  
OFFICE OF THE GOVERNOR

COMMUNIS 49266-0601

July 15, 1988

Dear Chief:

Attached to this letter is a copy of Executive Order 88-46 which will ban most outdoor burning in Ohio. I am issuing this order in response to the severe drought we are experiencing and in response to your calls and concerns expressed to the State Fire Marshal.

I wanted you to have a copy of the order and of relevant sections of the Ohio Revised Code. As your community's top fire official, you are the most vital part of this state's fire prevention network. I am asking for your help in increasing public awareness of the burning ban.

The ban applies to all fires kindled outside municipal limits for the purpose of burning wood, brush, weeds, grass or rubbish. The ban also applies to fires kindled by improperly disposing of a lighted match, cigar or other burning substance. There are specific exceptions to the ban, as noted in the order.

Ohio law provides that the ban shall be enforced by local peace officers within their jurisdiction. Violation of the ban is a third degree misdemeanor. Successful enforcement of the ban and protection of property will require continued high levels of cooperation between all local officials.

I appreciate your attention to this matter. I hope we can cooperate in our continued efforts to protect Ohio lives and property.

Sincerely,

A handwritten signature in black ink that reads "Richard F. Celeste". The signature is written in a cursive, flowing style.

Richard F. Celeste  
Governor



## RAVENNA ARSENAL INC.

A Subsidiary of Physics International Company

8451 STATE ROUTE 5

RAVENNA, OHIO 44266-9297

Telephone (216) 358-7111

Autovon 346-3210

July 21, 1988

Mr. Joseph J. Sommer  
Director, Ohio Department of Natural Resources  
1920 Belcher Drive  
Columbus, Ohio 43224

Subject: Compliance with Executive Order 88-46

Dear Mr. Sommer:

Confirming our telephone conversation July 21, 1988, Ravenna Arsenal, Inc. operating contractor of the U. S. Army's Ravenna Army Ammunition Plant, wants to assure itself and the U. S. Army that we are in compliance with Executive Order 88-46.

As part of our ammunition demilitarization operations we burn artillery shell propellant in pans under an Ohio E. P. A. permit. The material is destroyed in an area designed specifically for the open burning of explosives and propellants. The attached drawings detail the fire breaks, burning pads and patrol roads.

Ravenna Arsenal Inc. (RAI) has its own fire department with three pumpers and one tanker truck and our own dedicated and properly trained full-time fire fighting personnel (15 people). The area involved is protected with an earth exposed firebreak to preclude a run-away fire. The brush within the immediate area has been removed to avoid the spread of fire. In addition, Ravenna Arsenal Inc. maintains bulldozers with road transporters and road graders to maintain the fire breaks and to respond to fires starting from discarded cigarettes and lightening strikes. In addition RAI patrols the 21,500 acre Ravenna Army Ammunition Plant with its own radio equipped security force.

Because we operate under a wide range of regulations (DoD, Federal and State) we are most interested in making sure that we are in compliance with the recently issued Executive Order 88-46. It is our understanding that your department recommended the issuing of the order and we are seeking your written concurrence that the continuation of our permitted open burning operations under these controlled conditions will meet requirements of Executive Order 88-46.

Sincerely,

N. Wulff  
Vice President and General Manager

Encl:

- Drawings (a/s)

July 21, 1988

FROM THE DESK OF:

*LMM*  
L. M. MALCOLM, P.E.  
Air Quality Mgmt. Engineer

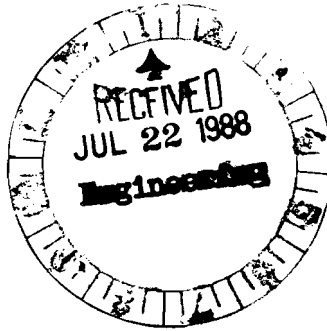
Dear ~~Mr. Chanda~~  
*Tom*

Per our telephone conversation of this date, a copy of the Governor's open burning ban is attached.

If you have any questions, please contact me.

LMM/ly  
Attachment

CF: RVAAP COR  
N. WULFF  
H. COOPER



AKRON REGIONAL  
AIR QUALITY MANAGEMENT DISTRICT  
177 S. Broadway - Akron, OH 44308  
(216) 375-2480

TELEPHONE CONVERSATION RECORD

DATE: August 4, 1988

FROM: Bob Carey  
OHEPA  
Solid & Hazardous Waste  
Columbus, OH

PHONE 614-295-2973

TO: Tom Chanda (Return Call)  
Environmental Engineer

PHONE 216-297-3221

SUBJECT: OHEPA Amended Emergency Hazardous Waste Permit To OB M-1 Propellant


Carey called to say everything had been resolved with the ODNR ban on RVAAP's OB activity. ODNR has provided notice (verbally) to OHEPA Air Pollution Division that the ban was not applicable to RVAAP's OB project; OHEPA Air signed-off on the RVAAP amended Hazardous Waste Emergency Permit.

After Carey had acquired all OHEPA Division Chiefs' sign-off on the Emergency Permit he turned it over to OHEPA Director, Richard Shank, for his signature. Shank would not sign-off on the permit; he's decided now that 400 tons is an unacceptable amount for OB. Carey indicated that Shank sent him a message which stated to the effect that the U.S. Army has designed units to destroy this material which does not necessitate RVAAP to perform OB; Carey asked if this statement was true. It was indicated to Carey that to this office's best knowledge that no units were operating that dealt with the destruction of propellant. With the propellant exhibiting ignition temperatures over 2000 F the existence of such units would anticipate to be fairly uncommon since specialized metallurgical characteristics in structure would have to be employed. This still doesn't say whether or not such units exist. The only thing this office can do, is to inquire upon the treatment units existence and get back with Carey.

Carey was going to have to meet with Shanks on the matter. Shanks is upset with Carey because there had been verbal approval given (by Carey) to commence the M-1 OB. The activity should not have started till Shank signed the amended permit. Carey did not expect any refusal from the Director, based upon previous past actions with RVAAP emergency permits. Carey is going to try to explain the situation to Shank supported by RAI supplied documented evidence of spontaneous ignition that can occur with nitrocellulose based propellant. This documentation was generated by U.S. Army Safety Bulletin annotating the hazards associated with nitrocellulose explosive compounds that can occur with long term storage or stabilizing agent degradation. Until matters are resolved, RVAAP should not conduct OB activities.

Carey asked how much M-1 propellant has already been destroyed. This office said 170,000 lbs. out of the 850,000 lb. lot had undergone OB.

While waiting on the outcome of the Carey/Shank meeting, this office will contact USAEHA to find out if the U.S. Army's explosive waste incinerators (normally destroy scrap explosive) or any other unit exists that handles waste propellant.



T. M. Chanda

TMC/wp

cc: RVAAP COR Office  
N. Wulff  
H. Cooper  
R. Holford  
File



# RAVENNA ARSENAL INC.

A Subsidiary of Physics International Company

8451 STATE ROUTE 5  
RAVENNA, OHIO 44266-9297

cc: N. Wulff  
T. Chanda  
File

Telephone (216) 358-7111

Autovon 346-3210

August 30, 1988

THRU: Contracting Officer's Representative  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, Ohio 44266-9297

TO: Ohio EPA  
Dr. Richard L. Shank, Director  
P.O. Box 1049, 1800 WaterMark Drive  
Columbus, Ohio 43266-0149

Subject: Open Burning Requirements at Ravenna AAP

Dear Sir:

On June 20, 1988 we submitted a request to add thermal treatment by burning 830,000 pounds of M-1 propellant to an existing emergency permit. On August 4, 1988 we were told that the request would not be granted. This action not only prevents completion of our current Army assigned workload but also threatens other workloads which are in various stages of planning.

Ravenna Army Ammunition Plant (RVAAP) is a government owned contractor operated ammunition loading plant which is considered semiactive. It currently has no production assigned but it has an extensive storage mission and sporadic demilitarization assignments. In demilitarization obsolete or unusable ammunition items are made nonfunctional for military purposes. In the past, explosive loaded items were usually destroyed by demolition or burning of the complete round. In recent years the preferred method of demilitarization of explosive ammunition is to take apart the ammunition and reclaim all salvageable materials. RVAAP has developed the capability to do this effectively and has earned the Army's support in assigning demilitarization projects to Ravenna.

During demilitarization, some materials are generated which can not be sold or reused. As an example, in the case of the current project the M-1 propellant was put up for sale through the Army sales office responsible for explosives and propellants. No bids were received. We later learned that benzene is used to reprocess the propellant and that because of the cost of complying with tighter regulations on benzene, reclaiming the propellant was not cost effective for the propellant manufacturers.

The last time M-1 propellant was generated in 1982 it was sold. If we had been successful in selling the propellant we would have salvaged 99.7% (39.8 pounds) by weight of the complete round (39.9 pounds). The only unsalvaged material is the tracer mix and the primer mix (0.05 pounds total). Even without salvaging the propellant (5.1 pounds) we were able to salvage 87% (34.7 pounds) of the complete 90MM round.

We have notified the Army of our permit status and they are awaiting resolution of the situation. Our fear is that if it is not resolved soon, other projects

which are planned for Ravenna AAP will be withdrawn. Since each demil project is additional work, Ravenna Arsenal, Inc. the operating contractor, adds new or recalled personnel for each project. As an example Ravenna Arsenal, Inc. increased its workforce by 35 personnel for 3 1/2 months to perform the recent 90MM demil project.

Because of the importance to our demilitarization mission, we are preparing a briefing to be presented to you in approximately 30 days. The briefing will include information we have requested from the Army and will attempt to show that: The treatment sites were existing sites as of 1980 using the same treatment methods and should have been granted interim status since all requirements were met; open burning and detonation of propellant and explosives results by design in a very complete reaction at temperatures equivalent to or exceeding those in an incinerator; that USEPA regulations recognize open burning of propellants and explosives as acceptable treatment; that the Army does not have incinerators capable of burning large quantities of propellant in addition to current loads; and that open burning is the only feasible alternative for treatment of propellants and explosives. We will also describe the history of our efforts to work with your agency in obtaining permit status including the filing of a Part B application as a "New Facility" in October, 1987 even though we believe not granting interim status as an existing facility was not correct.

We will be contacting you to arrange a time for the briefing. Please let us know if you have any other concerns that should be addressed in the briefing.

In the meantime, please reconsider issuing the emergency permit so that we can complete the 90MM project. Please let us know if there is anything we can do to expedite the issuance of a permit prior to the briefing.

I may be reached at (216) 297-3240 or Tom Chanda at (216) 297-3221.

Sincerely,

RAVENNA ARSENAL, INC.



H. R. Cooper  
Plant Engineer

HRC/wp

Telephone (216) 358-7111



# RAVENNA ARSENAL INC.

A Subsidiary of Physics International Company

8451 STATE ROUTE 5  
RAVENNA, OHIO 44266-9297

cc: N. Wulff  
T. Chanda  
File

Autovon 348-3210

August 30, 1988

Contracting Officer's Representative  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, OH 44266-9297

Subject: Ohio EPA Briefing - Open Burning

Dear Sir:

In the process of demiling 90MM training rounds RVAAP has generated approximately 680,000 pounds of M-1 propellant and 153,000 M-13 tracers. In the past good M-1 propellant has been sold by DRMO, Memphis to propellant producers for reclaiming. DRMO received no bids on the sale of the propellant this time. We are told it is because of tighter regulations affecting the use of benzene which is used to reclaim the propellant.

RVAAP requested that an existing Emergency Permit for burning 6,000 pounds of M-15 propellant be amended to include the M-1 propellant. Ohio EPA technical reviewers and permit units were initially supportive of the request; however, the Director of the Ohio EPA refused to approve the amended permit. The reasons cited are:

- 1.) The Army has incinerators in which the propellant can be burned and therefore, there is no need to open burn this propellant.
- 2.) The quantity is too large to routinely allow it to be burned.
- 3.) RVAAP has not adequately demonstrated that an emergency exists.

RVAAP is arranging a briefing for the Director which is tentatively scheduled to be given October 3, 1988. In preparation for the briefing we request assistance from Headquarters as follows:

- 1.) Provide a statement as to whether Army incinerators exist which are available to burn 650,000 pounds of M-1 propellant.
- 2.) Provide the current USEPA position on open burning of propellant and the names, positions and phone numbers of USEPA officials to whom Ohio EPA could be referred.
- 3.) Provide applicable supporting data which has been developed for presentation to either State or USEPA regulators.
- 4.) Provide the current status of Army or DOD sponsored waste minimization efforts/technologies affecting propellant and explosives. (Including any innovative contract terms which would encourage reclaimers or recyclers to accept the material).



5.) Provide the current status of Army sponsored research into actual emissions obtained from Open Burning/Open Demolition and the date by which the data can be made available to the regulators.

6.) Provide any information the Army has prepared which would support the need to destroy propellant and explosives rather than maintaining in storage.

7.) Provide any guidance which may be helpful in persuading the Director to allow burning to continue at least until more detailed emission studies are completed.

Our approach will be to use the supporting data as well as the history of RVAAP's State RCRA status to convince the Director that he should allow our activities to continue through one of the three options available to him. They are:

- 1.) Restore interim status which was withdrawn without due process.
- 2.) Issuing an exemption which would be valid until the State Part B permit is issued. (The application was submitted October 21, 1987)
- 3.) Continue issuing emergency requests until the State permit is issued.

In order to prepare the briefing RVAAP must have this supporting information by September 23, 1988.

Request your assistance in obtaining the above information from Headquarters.

Sincerely,

RAVENNA ARSENAL, INC.



H. R. Cooper  
Plant Engineer

HRC/wp



DEPARTMENT OF THE ARMY  
RAVENNA ARMY AMMUNITION PLANT  
8451 STATE ROUTE 5  
RAVENNA, OHIO 44266-9297

*Change  
File*



REPLY TO  
ATTENTION OF

August 30, 1988

Subject: Open Burning at Ravenna Army Ammunition Plant

Ohio EPA  
Dr. Richard L. Shank, Director  
P.O. Box 1049  
1800 Water Mark Drive  
Columbus, Ohio 43266-0149

Dear Sir:

As you may know, this installation has the mission to demilitarize ammunition. Ravenna Arsenal, Inc., (RAI), is the operating contractor for the Army and employs 35-70 people for this operation. Failure to obtain open burning permits would effectively cancel this mission.

Enclosed is a letter from RAI which we hope will explain why this installation requested a burning permit for M1 propellant. The RAI process for demilitarization, i.e., "to make safe explosive items by dismantling the item and recycling the material", is considered environmentally superior to demolition or burning of the complete round. In this process, reusable parts of the item are then offered for resale. However, some items cannot be recycled and have to be destroyed, such as the M1 propellant, for which we have requested a burning permit.

This installation shares the confidence of RAI that the process used at RVAAP is environmentally safe, and if RAI is allowed to make a presentation as they requested, can justify the present method used. Also, if you would like a demonstration of the process, we would be happy to accommodate you.

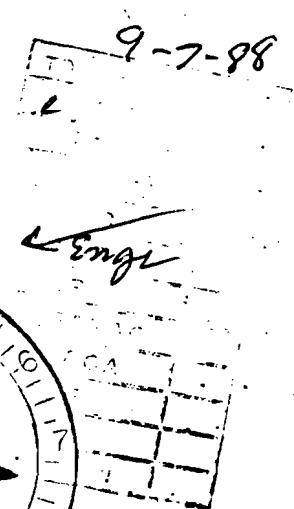
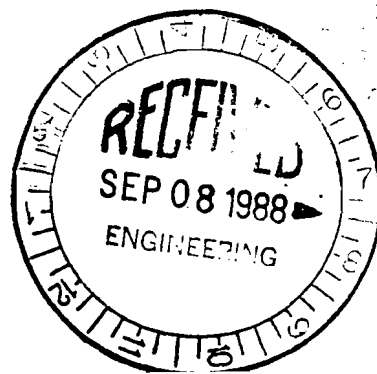
Point of contact at Ravenna is Mr. Robert J. Kasper, (216) 297-3124.

Sincerely,

*[Signature]*  
Robert J. Kasper  
Commander's Representative

Enclosure

Copies Furnished:  
AMCCOM, AMSMC-OP, Rock Island, IL 61299-6000  
AMCCOM, AMSMC-ISE, Rock Island, IL 61299-6000  
Cdr, INAAP, Charlestown, IN 47111-9667



Chandra  
Rite

3: 19 September 1988

SMCRV (200)

1 September 1988

MEMORANDUM FOR: Commander, U.S. Army Arsenal, Munitions and Chemical  
Command, ATTN: AMSMC-ISE, Rock Island, IL 61299-6000

SUBJECT: Open Burning Requirements, Ravenna Army Ammunition Plant

1. Reference Ravenna Arsenal, Inc., (RAI) letter dated 30 Aug 88, Subject:  
Ohio EPA Briefing - Open Burning, enclosed.

2. This installation requests your assistance, as outlined in the  
referenced letter, for a proposed briefing to the Director of Ohio EPA.  
It is planned that LTC Miller will attend the briefing with key EVAAP  
personnel. Your response is requested by 19 Sep 88.

3. POC is Mr. Robert J. Kasper. AUTOVON 346-3124.

FOR THE COMMANDER:

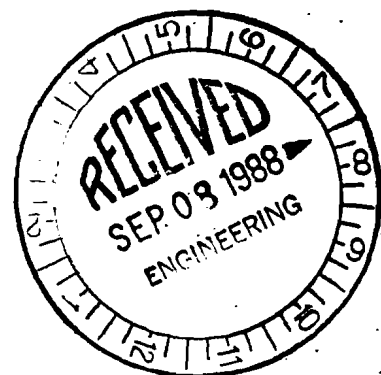
Encl  
as stated

ROBERT J. KASPER  
Commander's Representative

CF:  
AMSMC-OPP/Mr. Chose  
Cdr, INAAP/LTC Miller

9-7-88

TO	OFFICE	
C	GM	
	CO-COR	
	ACCTG	
	SEC	
	ENGR	
	IR	
	S&T&O	
	P&CA	
	SAF	
	DPN	
	RETURN	





## RAVENNA ARSENAL INC.

8451 STATE ROUTE 5  
RAVENNA, OHIO 44266-9297

Telephone (216) 358-7111

cc: N. Wulff  
R. Holford  
G. Wolfgang  
T. Chanda  
File

Autovon 348-3210

October 18, 1988

THRU: Contracting Officer's Representative  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, Ohio 44266-9297

TO: Ohio EPA  
Dr. Richard L. Shank, Director  
P.O. Box 1049, 1800 WaterMark Drive  
Columbus, Ohio 43266-0149

Subject: RCRA Exemption For Hazardous Waste Activities At Ravenna Army  
Ammunition Plant (AAP)

Dear Sir:

We sincerely appreciate your taking time to reconsider and approve our Emergency Permit Request to Burn M-1 Propellant as we requested in our letter of August 30, 1988. The open burning facilities are activated now and employees have been recalled to start the burning.

Unfortunately the lengthy delay in completing the project has caused the Army to examine future projects at Ravenna AAP. Headquarters, AMCCOM is tasked with the demilitarization of obsolete and/or unuseable conventional munitions from the Army stockpile stored at various Army facilities like Ravenna AAP. They prefer to fund our projects because we can remove the explosives from the munitions by melting (in lieu of open detonation) and because we have been able to demilitarize more ammunition per dollar cost than other plants. However, the Army can not afford to commit a significant part of their limited funding to Ravenna if the project may be interrupted or completely stopped for lack of permits. October 1 represents the start of the new Fiscal Year. Project managers are now deciding what projects will be funded for the whole year. The Army has stated that, unless we, the operating contractor, can establish a more stable permit status with the Ohio EPA, planned demilitarization funding will be diverted from Ravenna to other plants.

Besides the obvious financial impact to Ravenna Arsenal, Inc., the diversion would directly impact the recall of employees who are presently laid off. As an example, 35 people were recalled for 3 1/2 months to perform the recent demilitarization of the 90MM training rounds. Indirectly, some of the overhead personnel presently on the payroll would be laid off if the remaining activities are not able to absorb the overhead costs. Maintenance funding of the inactive part of the plant has been drastically cut and the increased demilitarization workload is counted on for retaining the present indirect labor staff.

In order to allow the plant to be considered for demilitarization project funding, we request an exemption be granted to allow hazardous waste treatment and storage activities to be performed at Ravenna AAP.

We believe that an exemption is justified for the following reasons:

1. RVAAP has RCRA Interim Status under USEPA
2. RVAAP submitted a RCRA Part B new permit request for hazardous waste activities to Ohio EPA October 21, 1987. The activities planned are all within the scope of that permit request.
3. As a condition of USEPA Interim Status, Ravenna is operating in full compliance with USEPA RCRA regulations.
4. The RVAAP hazardous waste facilities have been in existence since 1942 performing the same type of activities. A RCRA Part A application was submitted to Ohio EPA March 31, 1981. Interim Status was not granted on the basis that the facility was not operating immediately prior to October 9, 1980. (No workload was assigned.) In performing activities under Emergency Permits, all Ohio EPA RCRA regulations have been complied with as if Interim Status were in effect.
5. Due to the type of hazardous materials involved (propellants and explosives) and the location of the treatment areas (1.9 miles from the nearest property boundary) surrounding property owners are not affected by plant operations and no significant impact occurs to the environment.
6. Finally, we believe that we have been cooperative toward Ohio EPA personnel in requesting permits and in accepting project delays while awaiting permits.

A significant advantage of the exemption to both Ravenna AAP and the Ohio EPA would be the time saved which would otherwise be spent processing emergency requests. Ohio EPA's staff time could then be spent on processing the permanent permit.

We would expect certain conditions to be imposed in the exemption such as the following:

1. Duration - Preferably the exemption would be valid until such date that the new permit request submitted in October 1987 is acted upon and approved or denied.
2. Scope - Activities can be limited in scope to that which is included in the Ohio EPA RCRA Part B application. (Submitted October 21, 1987)
3. Regulations - Activities will conform with Ohio EPA and USEPA RCRA regulations.

The following information is provided to help you understand our facility better.

Ravenna Army Ammunition Plant (RVAAP) is a government owned contractor operated ammunition loading plant which is considered semiactive. It currently has no production assigned but it has an extensive storage mission and sporadic demilitarization assignments. In demilitarization, obsolete or unuseable ammunition items are made nonfunctional for military purposes. In the past, explosive loaded items were usually destroyed by demolition or burning of the complete round. In recent years the preferred method of demilitarization of explosive ammunition is to take apart the ammunition and reclaim all salvageable materials. RVAAP has developed the capability to do this effectively and has earned the Army's support in funding demilitarization projects for Ravenna. No chemical or nuclear munitions are demilitarized at Ravenna.

During demilitarization, some materials are generated which can not be sold or reused. As an example, the M-1 propellant from the current project was put up for sale through the Army sales office responsible for explosives and propellants. No bids were received. Propellant or explosives which can not be sold or reused must be destroyed to avoid unnecessary hazards. Destruction is accomplished by open burning, open detonation or a deactivation furnace.

Please advise us if any further information is required to support an exemption.

I will contact Chris Snyder of your office in a week to determine if you will agree to process an exemption. I will then notify the Army accordingly.

Sincerely,

RAVENNA ARSENAL, INC.



H. R. Cooper

HRC/wp

cc: Ohio EPA  
Office of Solid and Hazardous Waste Management-Engineering  
Attn: Ed Lim

TELEPHONE CONVERSATION RECORD

DATE: October 27, 1988

PERSON CALLING: H. R. Cooper  
Plant Engineer

Phone: (216) 297-3240

PERSON CALLED: Chris Snyder  
Ohio EPA Directors Office

Phone: (614) 644-2782

Ed Lim  
Ohio EPA

(614) 644-2917

SUBJECT: RCRA Exemption Request

I called Chris Snyder's office and talked to Tamara.

I asked if they had received our letter and what the status was.

Tamara said it was received and sent to Ed Lim for action and she would have him call.

Ed returned the call.

He said, that he had received the letter and was preparing a response. He felt it was too broad. I explained to him that that Part A quantities included with our Part B submission of October 21, 1987 provided limits which could be incorporated in the exemptions.

I explained that we could not be too specific because we didn't know what projects would be funded.

We believe it would be counterproductive to get very specific in the wording of the exemption and then end up modifying it several times. However, we will provide whatever information he required to obtain approval of the exemption. He said, he would see if the Part A limits were appropriate for them.

He said, he should have a response out of his office by November 10, 1988 which would identify any additional information which would be required to process the request.

  
H. R. Cooper

cc: COR  
N. Wulff  
T. Chanda  
R. Holford  
File

TELEPHONE CONVERSATION RECORD

DATE: November 18, 1988

PERSON CALLING: H. R. Cooper

Phone: (216) 297-3240

PERSON CALLED: Bob Carey

Phone: (614) 6744-2973

SUBJECT: Ohio EPA Visit to Observe a Propellant Burn

Mr. Carey and I had agreed to invite the Director of the Ohio EPA and his staff to witness a propellant burn. We felt that seeing the operation should reduce their concerns about the operation and help in getting an exemption request. We had agreed to wait until the teamsters strike was resolved so that the Director would not be exposed to a picket line.

I called Mr. Carey to advise him that the strike was not resolved, but we are drawing to the conclusion of the current burning project. There has been no interference entering the plant except for two days early in the strike.

He said, he would ask the Director's office if he would come. He said, that the staff would have no problem passing a picket line and felt they would come regardless. I told Bob that if the Director would not come, that we could loan them a videotape to take back to him.

The staff people who he will invite are:

Ed Lim

Ed Kitchen

Don Easterling

A representative from Hazardous Waste Review Board

I told him that we would be burning through November 28 with good weather, but longer if rain delays occurred. If we knew they were coming we could hold enough for one burn for a week beyond the 28th, if necessary.

The burning occurs at approximately 11:30 and 1:30.

We don't work on November 25, the day after Thanksgiving.



November 18, 1988

He said, he would line up a visit and probably let me know Monday.

He also said, that there have been discussions on the exemption request, but a letter had not been released. He suggested the exemption request be discussed during the visit.



H. R. Cooper

HRC/bp

cc: COR

N. Wulff

T. Chanda

R. Holford

G. Wolfgang

TELEPHONE CONVERSATION RECORD

DATE: November 30, 1988

PERSON CALLING: H. Cooper

Phone: (216) 297-3240

PERSON CALLED: Bob Carey

Phone: (614) 6744-2973

SUBJECT: Invitation for Ohio EPA to Witness M-1 Propellant Burn and  
Exemption Request Status

Asked him if he had scheduled a visit yet with the Director's Office. He had not received a response from them. He will check with Chris Snyder again and if the Director can not come he will still schedule a visit with those who are involved in the permit status.

He asked if we were finished burning the rest of the M-1. I told him yes, all except 150,000# which may be able to be sold to avoid burning. I explained that there is some risk that the buyer may back out but that we felt that we should give the sale a chance so that a potential user of propellant can be established. He agreed and said that he sees no problem if we have to come back for a permit to burn if the buyer defaults.

I told him we had reserved enough propellant for one trial burn but that we want to have the demonstration before the holidays.

I asked about the Exemption Request and he explained that Ed Lim has been out of the office for the last week and Bob didn't know the status.

He said that the comments/questions on our new RCRA request were being typed and after an in-house review would be sent to us for additional input; (estimate within 2 weeks). He said that our permit was moving ahead of most of the others up to this point. I said that we would respond as quickly as possible to stay ahead of the others.

cf: COR-RVAAP  
N. Wulff  
R. Holford  
T. Chanda  
File

  
H. R. Cooper

HRC:jb

TELEPHONE CONVERSATION RECORD

DATE: December 22, 1988

PERSON CALLING: H. R. Cooper

Phone: (216) 297-3240

PERSON CALLED: Bob Carey  
Ohio EPA

Phone: (614) 6744-2973

SUBJECT: Demonstration Burn and Exemption Request

I called Bob to inform him that the strike had been settled. He said that was good. He thinks he will make a visit to Ravenna within the first two weeks of January but probably without the Director. I told him that the air permit will have expired but if they come we will explain the purpose to the Air Pollution people.

I asked about the exemption request. He said it has been discussed and given to him for writing it up. He doesn't think he needs any more information. He is working ours with Austin Powder's request which is very similiar. The earliest he said we can expect it is February 1, 1989.



H. R. Cooper

HRC:jb

cf: N. Wulff  
COR - RVAAP  
T. M. Chanda  
File

RAVENNA ARMY AMMUNITION PLANT

SUMMARY OF DISPOSITION OF MATERIAL  
FROM RECENT DEMILITARIZATION PROJECTS

<u>ITEM</u>	<u>YEAR</u>	<u>QUANTITY</u>	<u>WT/UNIT</u>	TONS <u>DEMILLED</u> (Qty Unit Wt) (2,000#)	TONS <u>SALVAGED</u>	TONS <u>DESTROYED</u>	<u>%SALVAGED</u>	<u>HIRED/RECALLED</u>	<u>REMARKS</u>
90MM HE CARTRIDGE	1974	455,651	39.0#	8,885	8,885	0	100%	54	
90MM HE CARTRIDGE	1982	428,486	39.0#	8,355	8,355	0	100%	52	
90MM HE CARTRIDGE	1983	518,187	39.0#	10,105	8,605	1,500	85%	52	M-15 Propellant
90MM HE CARTRIDGE	1984	22,890	39.0#	446	446	0	100%	52	
152MM HE CARTRIDGE	1984	20,414	48.5#	495	399	96	81%	12	M-15 Propellant, cartridge case, igniter, fuze, booster, 382 complete rounds
175MM PROJECTILE	1985	3,455	150#	259	259	0	100%	12	
90MM TRAINING CARTRIDGE	1988	153,215	40#	3,064	2,730	334	89%	35	Tracers & M1 Propellant
TOTAL:				31,609	29,678	1,930	94%		

Note: Weights shown above exclude packaging and skid weight

Hired/Recalled represents number of people on the line plus additional transportation, security and maintenance personnel.

1982, 83 and 84 projects were done consecutively with the same people over a 3 year period.

## WEATHER DATA STATISTICS

[illegible]

## WEATHER DATA STATISTICS

[illegible]

INTER OFFICE MEMO

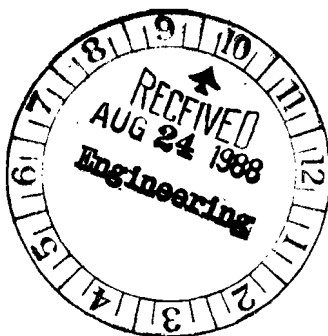
*Chandler*

TO G.H. Pain AT East Alton DATE August 18, 1988  
 FROM R.E. Smith AT Washington COPY TO J.R. Cloninger  
 D.W. Griffin  
 J.M. Jackson  
 J. Mattei  
 N.O. Neunaber  
 G.H. Nusloch  
 G.T. Wisely  
~~Mr. Wulff~~  
 SUBJECT Federal Facility Meeting

As referenced in my August 17 memo, EPA will have a GOCO/federal facilities conference in Washington on October 26-27. It will be at the Quality Inn on Capitol Hill. Due to conference room size, participants will be limited (as of now) to 150 people.

Agendas are being developed and panels formed. Lee Herwig of EPA's Federal Facilities Compliance Program is not sure who will be on each panel. The invitations, agendas and request for speakers will most likely be mailed to the GOCO operators' main contact/representative.

I would ask Bob, Jim and Norm to be on the alert for this mailing and distribute copies to all interested Olin parties.



*8-23-88*

TO	OFFICE	
<input checked="" type="checkbox"/>	GM	
	CO-COR	
	ACCTG	
	SEC	
<input checked="" type="checkbox"/>	ENGR	
	IR	
	S&T&O	
	P&CA	
	SAF	
	DPM	
	RETURN	

*[Handwritten signature]*

cf: N. Wulff  
T. Chanda  
File



# RAVENNA ARSENAL INC.

A Subsidiary of Physics International Company

8451 STATE ROUTE 5  
RAVENNA, OHIO 44266-9297

Telephone (216) 358-7111

Autovon 346-3210

August 31, 1988

THRU: Contracting Officer's Representative  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, OH 44266-9297

TO: Commander  
U.S. Army Armament, Munition and Chemical Command  
Attn: AMSME-DSM-D Mr. Dean D. Sevey  
Rock Island, IL 61299-6000

Subject: State Of Ohio Permit Reviewers

Dear Sir:

Per your request to Mr. Norm Wulff, the following information is provided:

The following individuals comprise the technical review group for Ohio EPA that would be called upon to generate expert opinion/insight upon environmental issues.

Ohio Environmental Protection Agency  
P.O. Box 1049, 1800 WaterMark Drive  
Columbus, Ohio 43266-0149

HAZARDOUS & SOLID WASTE - ADMINISTRATIVE

Mr. Paul Flannigan  
Chief of Hazardous & Solid Waste  
Phone 614-644-2920

HAZARDOUS WASTE - TECHNICAL

Mr. Edward Kitchen  
Divisional Head of Technical Assistance & Engineering  
Phone 614-644-2963

AIR POLLUTION - TECHNICAL

Mr. Robert Hodandosy  
Assistant Chief of Air Pollution  
Phone 614-644-2284

SOLID WASTE - TECHNICAL & ADMINISTRATIVE

Ms. Nancy Moore  
Divisional Head of Solid Waste  
Phone 614-644-2921



INDUSTRIAL WASTEWATER - TECHNICAL & ADMINISTRATIVE

Mr. Robert Phelps  
Chief of Industrial Wastewater  
Phone 614-644-2001

The Ohio EPA Headquarters may further seek technical guidance/comment from their subordinate district field offices which have responsibility over RVAAP. These district personnel and associated responsibilities are as follows:

Akron Regional Air Pollution Control  
177 South Broadway  
Akron, Ohio 44308

AIR - OPEN BURNING PERMIT

Mr. Jerry Garro  
Air Monitoring Officer  
Phone 216-375-2480

AIR - INDUSTRIAL STATIONARY SOURCE EMISSIONS

Mr. Lynn Malcolm  
Air Quality Engineer  
Phone 216-375-2480

Ohio Environmental Protection Agency  
Northeast District Office  
2110 East Aurora Rd.  
Twinsburg, Ohio 44087-1969

HAZARDOUS WASTE/RCRA

Mr. Donald Easterling  
Environmental Scientist  
Phone 216-425-9171

SOLID WASTE

Mr. David Budd  
Environmental Scientist  
Phone 216-425-9171

INDUSTRIAL WASTEWATER - NPDES

Mr. Martin Hilovsky  
Environmental Scientist  
Phone 216-425-9171

State of Ohio Permit Reviewers Cont'd -3-

Mr. Tom Chanda, Autovon 346-3221, is the Point of Contact if you have any question about this list.

Sincerely,

RAVENNA ARSENAL, INC.

A handwritten signature in cursive script, appearing to read "H. R. Cooper".

H. R. Cooper  
Plant Engineer

HRC/wp