FACT SHEET

# Newport: Making Chemical Weapons History

Community pride and small town spirit characterize the Newport, Ind., area. This beautiful mid-West region also is playing a vital role in national and global affairs. Near Newport, the U.S. Army is making chemical weapons history at its Newport Chemical Agent Disposal Facility. This facility will destroy a stockpile of chemical agent that has been stored at the Newport Chemical Depot for nearly 40 years.

## Where is the chemical agent located?

The chemical agent, a highly toxic chemical stored in sturdy steel containers, is housed safely at the Newport Chemical Depot. Contrary to popular belief, the chemical agent is not a gas, but an oily liquid. The depot, which is a military installation, opened in 1941 as the Wabash River Ordnance Works. Various warfare materials, including chemical agent, were manufactured at this site. In the late 1960's, the U.S. stopped production and shipment of chemical agent and weapons. Since then, this stockpile of chemical agent, which the United States never used, has remained in safe storage at the depot.

## What is the Newport Chemical Agent Disposal Facility?

The Newport Chemical Agent Disposal Facility will safely and efficiently neutralize the chemical agent stockpiled at the depot.

## How will the chemical agent be destroyed?

Following the Sept. 11, 2001, terrorist attacks, the Army is expediting safe neutralization of the Newport stockpile using sodium hydroxide and standard industrial equipment. The resulting byproduct, called hydrolysate, is similar in characteristics to commercial household drain cleaners. It will be tested to ensure that the chemical agent has been destroyed and then will be treated and disposed.

## Who will destroy the chemical agent?

The Army's Chemical Materials Agency (Provisional) is responsible for safely disposing of the stockpile. In 1999, the Army awarded Parsons, an architectural engineering firm from Pasadena, Calif., the contract to build, test, operate and close the demilitarization facility. Many other organizations work in partnership with the Army to complete this mission safely. Among these are the Indiana Department of Environmental Management, the state of Indiana, the U.S. Environmental Protection Agency, Region V, and the Centers for Disease Control and Prevention. Some of your family members, friends or neighbors may work on this important project.

## How long will it take to destroy the chemical agent?

Construction of the original Newport Chemical Agent Disposal Facility began in April 2000. Since adopting processes to allow for accelerated neutralization, construction on the modified facility should be completed in 2003. A period of testing, called systemization, will follow construction until operations begin. Once operations begin, destruction of the nerve agent will last about nine months. After all operations are completed and the empty storage containers are cleaned and sent off-site for recycling, the facility will be closed.

**For more information,**
contact the
Public Outreach and
Information Office of the
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**1(800) 488-0648** or
**www.cma.army.mil**

or visit the
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P.O. Box 279
140 South Main Street
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**Phone:** (765) 492-4445
**Fax:** (765) 492-4475

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# Newport: Making Chemical Weapons History (continued)

## How will the Army protect the environment?

The Army is working closely with the Indiana Department of Environmental Management and other regulatory agencies to ensure operations at the disposal facility are protective of local citizens and the surrounding environment.

## What will happen to the facility and the depot once the agent is gone?

Chemical agent disposal is the depot's final mission. Once disposal is completed, the facility will be dismantled, and the depot will undergo a closure process.

## What is the Indiana Citizens' Advisory Commission?

This commission, also referred to as the CAC, is made up of nine members appointed by the governor of Indiana. Members are from the Newport region and include state and county officials, as well as technical experts. The purpose of this organization is to provide a link between your community and the Army. The members do not make program decisions, but they are encouraged to provide guidance and recommendations. The commission provides a community perspective to the Army so that it may manage the chemical agent disposal program in a way that includes public input. The CAC holds regular meetings throughout the year. The community is encouraged to attend these meetings, which are open to the public and announced in local newspapers. Meetings also include time for public input and questions.

## How can I learn more?

The Army opened the Newport Chemical Stockpile Outreach Office in 1997 as a convenient "one-stop" source of information about the chemical disposal program. The office staff works closely with experts from the depot, the disposal facility and your local emergency preparedness offices to ensure a comprehensive public involvement and outreach program. The office has a large repository of fact sheets, brochures, exhibits and technical studies for you to peruse, but this is just the beginning of what it offers. The outreach staff frequently can be seen in the Newport area giving presentations, hosting public meetings, distributing informational materials and representing the Army at community events.

## How can I contact the CAC?

For information on the current issues the commission is considering, or to find out the upcoming meeting schedule, please call the Newport Chemical Stockpile Outreach Office at (765) 492-4445.

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# Newport Chemical Agent Disposal Facility: Accelerated Disposal

After the Sept. 11, 2001, terrorist attacks, the U.S. Army began evaluating additional methods to reduce the public risk associated with chemical stockpile storage, including methods to accelerate stockpile destruction.

In May 2002, the Army announced plans to accelerate destruction of the nerve agent VX stockpile located at Newport Chemical Depot in Indiana, recognizing that complete destruction of the stockpile offers the best security and permanent protection to the public. The Army worked closely with officials and regulators from the Indiana Department of Environmental Management and the U.S. Environmental Protection Agency to determine the most effective way to safely accelerate nerve agent destruction. The resulting plan was approved by environmental regulators, endorsed by federal and state officials and briefed to the Indiana Citizen's Advisory Commission.

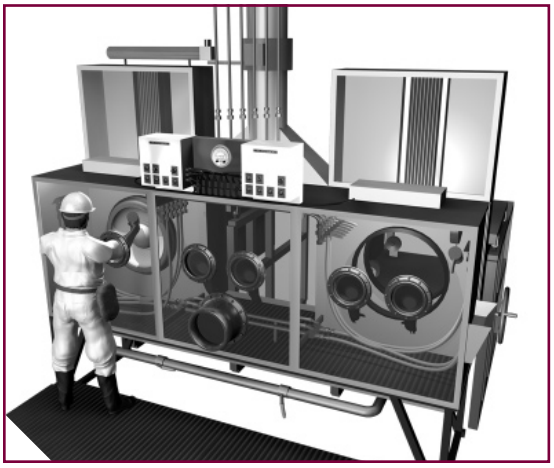
On May 11, 2002, Under Secretary of Defense for Acquisition, Technology and Logistics E.C. "Pete" Aldridge signed the acquisition decision memorandum, giving the Army authority to begin the accelerated disposal project.

## General Process Comparison.

Accelerating stockpile destruction involves the same neutralization technology and much of the same equipment approved for use in the original Newport Chemical Agent Disposal Facility. The accelerated plan simplifies the original process and reorders its sequence to destroy all of the nerve agent first, thereby eliminating the risk presented by the presence of the stockpile up to two years earlier than previously scheduled.

The accelerated process differs from the original process in four main steps: draining agent from storage containers; neutralizing agent and testing to ensure complete destruction; disposing of the neutralization byproduct or "hydrolysate;" and decontaminating of disposal container.

**Step 1: Draining the Agent.** Workers drain the nerve agent from the steel containers using the chemical agent transfer system, a specially



designed sealed glove box system that has been safely used by the Army and the chemical industry for more than 40 years. A tube is inserted into the container and the agent is pumped to an agent holding tank.

**Step 2: Agent Destruction and Confirmation.** The nerve agent is fed into a tank where it is neutralized using hot sodium hydroxide, forming a liquid byproduct called hydrolysate. The hydrolysate, is similar in characteristics to commercial household drain cleaners, then is tested to confirm complete agent destruction.

**Step 3: Hydrolysate Disposal.** Hydrolysate is transported off-site by licensed tanker truck to a commercial treatment and disposal facility for bio-treatment.

**Step 4: Container Decontamination and Disposal.** Under the original disposal plan, the steel containers would have been cut, rinsed and decontaminated right after draining the agent. The accelerated process calls for draining and neutralizing the agent, while concurrently decontaminating the interior of the empty containers. These containers will be stored temporarily until all the nerve

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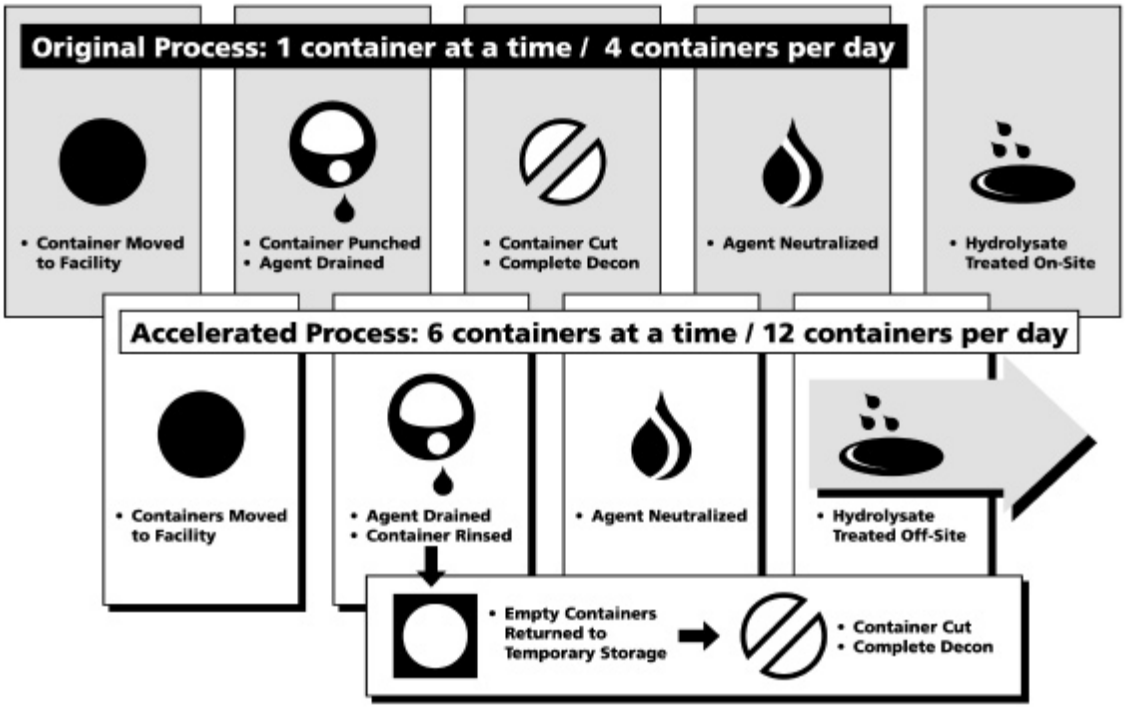
# Newport Chemical Agent Disposal Facility: Accelerated Disposal (continued)

agent VX is destroyed, and then cut open and monitored prior to shipment to an off-site facility for thermal cleaning. This approach provides the most immediate protection to the public by destroying the nerve agent contents of the containers first, and then thoroughly decontaminating all of the containers after the nerve agent is neutralized. The container parts will be monitored to ensure that no agent remains and will be shipped off-site for recycling.

Many authorities with extensive knowledge of the chemical demilitarization program, hazardous waste disposal, worker safety regulations and environmental protection continue to work closely with the Army to ensure that worker and public safety and environmental protection are the most important elements of this project.

If you would like more information on the accelerated nerve agent disposal project at Newport Chemical Depot, contact the staff at the Newport Chemical Stockpile Outreach Office at (765) 492-4445, the NECDF Public Affairs Specialist at (765) 245-4475 or Parson's Public Outreach Manager at (765) 492-4481. You also may visit the Army's Web site at www.cma.army.mil.



FACT SHEET

# Newport Chemical Agent Disposal Facility Hydrolysate Facts

The Newport chemical agent stockpile will be neutralized by adding bulk liquid agent VX to a mixing tank containing hot (approximately 194 degrees Fahrenheit) sodium hydroxide and water. The liquid agent VX and hot sodium hydroxide and water are agitated for 90 minutes. The VX reacts with sodium hydroxide to produce a byproduct made up of water, sodium hydroxide and organic phosphorous and sulfur-containing compounds that is called hydrolysate. The neutralization process irreversibly destroys the chemical agent. Prior to off-site shipment, the hydrolysate will be analyzed to ensure there is no detectable agent remaining in the hydrolysate.

Although the hydrolysate is regulated under the Resource Conservation and Recovery Act (hazardous waste rules), it is less hazardous than many chemicals that are shipped daily over highways.

## Hydrolysate characteristics:

- Approximately 55 percent water, 40 percent organic compounds and 5 percent sodium hydroxide
- Strong odor
- Moderately low flash point (Flash point is the lowest temperature at which a liquid gives off ignitable vapor. Hydrolysate would have to reach a temperature of 127 degrees Fahrenheit before giving off any ignitable vapor.)
- Caustic or corrosive (Hydrolysate has a pH greater than 12 and is caustic. Industrial strength liquid drain cleaner has a greater pH and is more caustic.)
- Density is approximately 1.17 (Hydrolysate is thicker than water, much like liquid drain cleaner.)
- 100 percent pumpable (Hydrolysate is a liquid and easily transferred to and from tanker trucks.)

## Hydrolysate Disposal:

The hydrolysate produced by the Newport neutralization facility will be transported off-site to a permitted commercial treatment and disposal facility for biotreatment and final disposal. A certified commercial hazardous waste carrier will transport the hydrolysate in accordance to all applicable local, state and federal regulations. In fact, several years ago the Army safely transported approximately 2,800 gallons of caustic hydrolysate to support an Army test program.

Biotreatment, or biodegradation, is a biological process where bacteria digest organic compounds to form simpler compounds such as carbon dioxide, water and solids. Biotreatment is a common practice used in municipal sewage treatment plants.

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FACT SHEET

# Newport Hydrolysate Transportation

## Background

The Newport Chemical Depot, located in Vermillion County, Ind., has safely stored 4 percent of the Army's chemical stockpile since the late 1960's. The depot plans to begin neutralizing the stockpile of liquid nerve agent VX on-site at the Newport Chemical Agent Disposal Facility (NECDF) in late-2003.

## Neutralizing the risk

During the neutralization process, liquid VX is drained from steel containers and fed into mixing tanks containing hot water and sodium hydroxide. The contents are then vigorously mixed causing a chemical reaction that irreversibly destroys the agent and produces a byproduct called hydrolysate—a mixture of water, sodium hydroxide and organic phosphorous- and sulfur-containing compounds. Following neutralization, the hydrolysate will be tested at Newport to ensure there is no detectable agent in it prior to off-site transport.

After the terrorist attacks of Sept. 11, 2001, the Army made the decision to expedite the disposal of the stockpile at Newport using an accelerated neutralization process. This accelerated plan was coordinated with and approved by Indiana environmental regulators, and local, state and federal elected officials. The accelerated plan simplifies the original process and reorders its sequence by neutralizing the VX agent using hot water and sodium hydroxide, disposing of the neutralization byproduct (hydrolysate), and cleaning and disposing of the empty steel containers afterward. This accelerated neutralization process reduces the storage risk by two years.

## Off-site secondary treatment

The neutralization process will generate approximately 900,000 gallons of hydrolysate.

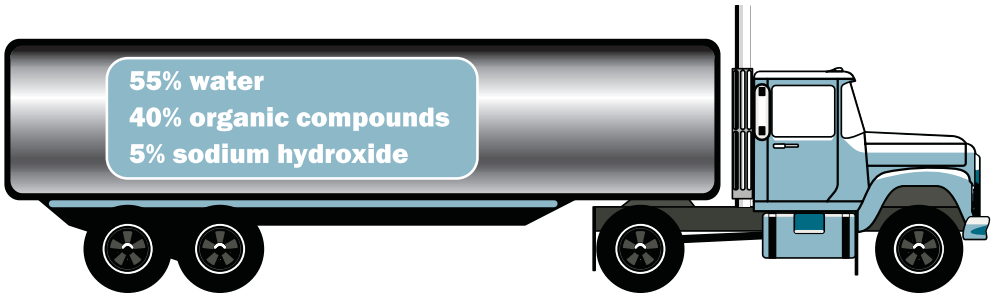
In December, the NECDF systems contractor, Parsons Infrastructure and Technology, Inc. awarded a contract and limited notice to proceed to Perma-Fix of Dayton, Inc., located in Ohio. Perma-Fix is a Clean Water Act and Resource Conservation and Recovery Act-permitted industrial waste and wastewater treatment, storage and disposal company. The contract is to fully demonstrate their capability to safely treat the hydrolysate so that the effluent meets all requirements under the Perma-Fix Wastewater Discharge Permit and state and federal environmental regulations and guidelines. Upon successful completion of these tests, Perma-Fix will be authorized to accept 30 percent of the hydrolysate generated by the NECDF for biotreatment and final disposal (with options to treat the remaining hydrolysate).

## Hydrolysate Questions and Answers

### *What is hydrolysate?*

Hydrolysate [pronounced high-DRAWL-ih-sate] is approximately 55 percent water, 40 percent organic compounds and 5 percent sodium hydroxide. Hydrolysate is NOT nerve agent VX and does not have the characteristics of nerve agent. The hydrolysate will be tested before it leaves the Newport facility to ensure the agent is destroyed. By regulation, it is considered a hazardous waste and it will be handled accordingly.

The hydrolysate consists of a thin upper (primarily organic) layer (approximately 3-5%) and a lower (consisting of the water, sodium

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**For more information**
about Perma-Fix of
Dayton, Inc., call:
**Thomas A. Trebonik, CPGS**
**Public Outreach**
**Phone (330) 498-9750**
**Perma-Fix Facility**
**Phone (937) 268-6501**
**ttrebonik@aol.com**
or visit
**www.perma-fix.com/dayton**

OVER ▶

# Newport Hydrolysate Transportation

(continued)

hydroxide, and remaining organics) layer. The upper layer of the hydrolysate has a moderately low flash point, which is the lowest temperature at which a liquid gives off ignitable vapor. The organic portion of hydrolysate would have to reach a temperature of 127 degrees Fahrenheit before producing any ignitable vapor. The water portion of hydrolysate has a flash point in excess of 205 degrees Fahrenheit.The flammability hazard is comparable to the flammability of water with a 3-5% layer of diesel fuel sitting on top of the water.

Hydrolysate is very caustic, or corrosive, as it has a pH greater than 12. Liquid drain cleaners are very similar to hydrolysate in that they too, are very caustic. Like liquid drain cleaners, the hydrolysate's density is about 1.17, making it thicker than water.

Hydrolysate has a very strong odor. Perma-Fix has an active, ongoing program to eliminate all odors from the facility. Perma-Fix has recently installed a regenerative thermal oxidizer (RTO) on portions of the facility associated with biological treatment. The RTO is the best available technology for this purpose. It is designed to capture and destroy any odor that may be generated.

### *What will happen to the hydrolysate?*

Perma-Fix plans to pre-treat the hydrolysate by mixing it with an oxidizing compound (such as hydrogen peroxide), followed by biotreatment. In biotreatment, micro organisms will destroy the remaining organic compounds. Following successful biotreatment, Perma-Fix will discharge the effluent to the Montgomery County Regional Wastewater Treatment Plant. This discharge is managed and regulated under the terms and conditions of a pretreatment agreement between Perma-Fix and Montgomery County.

Perma-Fix, voted one of the top ten TSD companies in the U.S. and Canada by readers of Environmental Technology, is regulated to handle and process wastewater similar to hydrolysate on a regular basis.

### *How will the hydrolysate be transported?*

To transport the hydrolysate from Newport, Perma-Fix will use three dedicated tanker trucks, equipped with Global Positioning Systems to monitor the location of the trucks via satellite communication. The tankers are custom designed and U.S. Department of Transportation (DOT) approved for safe transportation of hazardous waste. The trucks will travel primarily on state and federal highways and will follow approved hazardous waste transportation routes. Hydrolysate will be transported in accordance with DOT rules as a Class 8 caustic hazardous waste and a subsidiary Class 3 flammable hazardous waste. The hydrolysate transported by these trucks is, in fact, less hazardous than many of the materials being transported daily on U.S. highways.

### *Who drives the trucks? What kind of training do they receive?*

The DOT requires hazardous material drivers to obtain special certification prior to hauling any hazardous waste. Drivers also are trained in contingency plans and emergency response activities. This thorough training has resulted in nationwide accident rates ten times lower for hazardous waste transportation than regular shipping modes of transportation according to DOT data. The DOT records transportation related statistics, including safety information, which is available to the public at www.dot.gov. Each truckload will be carefully inspected, recorded and tracked.

## Protecting the public and the environment

Chemical Weapons Convention inspectors may be present at Perma-Fix to ensure that all aspects of the hydrolysate biotreatment meet treaty requirements. Teams at both NECDF and Perma-Fix are working closely with local, state and federal emergency management agencies to ensure that human health and the environment are protected during the transport of hydrolysate. Congress, the National Research Council, Environmental Protection Agency, Centers for Disease Control and Department of Health and Human Services also provide oversight.

FACT SHEET

# Information Repositories: Newport Chemical Depot

In an effort to increase public awareness and involvement in the chemical demilitarization program at Newport Chemical Depot, Ind., the Army has established eight information repositories in the communities surrounding the installation. The purpose of these repositories is to provide local officials, organizations and interested citizens with open and convenient access to accurate, detailed and current data regarding the program at Newport Chemical Depot.

The Army realizes the importance of public involvement in disposing of America's chemical stockpile in a safe and environmentally friendly manner. In fact, the Army encourages members of the community to be involved in every step of the decision-making process.

## Updates and Notification

Information at each of the repositories is continuously updated and regularly checked to ensure that important program materials are available to the public. Information repository locations and their hours of operation are periodically published in local newspapers and publicized during public meetings. In addition, citizens are notified of repository locations through fact sheets and newsletter mailings.

## Central Repository

In April 1997, the Army established the Newport Chemical Stockpile Outreach Office. This office serves as a forum for the community to obtain information on the safe storage and disposal of nerve agent VX as well as other programs at Newport Chemical Depot.

A variety of resources including reports, brochures, fact sheets and exhibits are available through the Newport Chemical Stockpile Outreach Office. Citizens, businesses, public interest groups and civic organizations are encouraged to visit the outreach office to become familiar with Newport Chemical Depot's chemical materiel programs.

## Repository Locations

Newport Chemical Stockpile Outreach Office
140 South Main Street
Newport, IN 47966
(765) 492-4445

Newport Public Library
350 East Market Street
Newport, IN 47966
(765) 492-3555

Clinton Public Library
4th and Blackman Streets
Clinton, IN 47842
(765) 832-8349

Rockville Public Library
106 North Market Street
Rockville, IN 47872
(765) 569-5544

Danville Public Library
319 North Vermillion Street
Danville, IL 61832
(217) 477-5220

Vigo County Public Library
1 Library Square
Terre Haute, IN 47807
(812) 232-1113

Dana Public Library
140 North Maple Street
Dana, IN 47847
(765) 492-3555

Covington Public Library
622 5th Street
Covington, IN 47932
(765) 793-2572

Montezuma Public Library
212 Crawford Street
Montezuma, IN 47862
(765) 245-2772

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FACT SHEET

# Community Education

## VX Nerve Agent

**(O-ethyl S-(diisopropylaminoethyl) methylphosphonothioate)**

### Description

Chemists in the United Kingdom searching for new insecticides came across compounds that were extremely toxic to humans. The British shared the discovery with the U.S. Army in 1953 and a systematic investigation of these new compounds was begun at Edgewood. The Army discovered they were more persistent and much more toxic than the G-series agents. In 1955, these compounds were designated V-series agents for "venomous." VX is an oily liquid that is clear, odorless and tasteless. It can be amber colored and similar in appearance to motor oil.

### Signs and Symptoms

Symptoms of overexposure may occur within minutes or hours, depending upon the dose. They include: miosis (constriction of pupils) and visual effects, headaches and pressure sensation, runny nose and nasal congestion, salivation, tightness in the chest, nausea, vomiting, giddiness, anxiety, difficulty in thinking, difficulty sleeping, nightmares, muscle twitches, tremors, weakness, abdominal cramps, diarrhea, involuntary urination and defecation. Severe exposure symptoms progress to convulsions and respiratory failure.

### Treatment

#### *Inhalation*

Hold breath until respiratory protective mask is donned. If severe signs of agent exposure appear (chest tightens, pupil constriction, incoordination, etc.) immediately administer, in rapid succession, all three Nerve Agent Antidote Kit(s), Mark I injectors (or atropine if directed by a physician). Injections using the Mark I kit injectors may be repeated at 5 to 20 minute intervals if signs and symptoms are progressing until three series of injections have been administered. No more injections will be given unless directed by medical personnel. In addition, a record will be maintained of all injections given. If breathing has stopped, give artificial respiration. Mouth-to-mouth resuscitation should be used when mask-bag or oxygen delivery systems are not available. Do not use mouth-to-mouth resuscitation when facial contamination exists. If breathing is difficult, administer oxygen. Seek medical attention **Immediately**.

#### *Eye Contact*

**Immediately** flush eyes with water for 10-15 minutes, then don respiratory protective mask. Although miosis (pinpointing of the pupils) may be early sign of agent exposure, an injection will not be administered when miosis is the only sign present. Instead, the individual will be taken **Immediately** to a medical treatment facility for observation.

#### *Skin Contact*

Don respiratory protective mask and remove contaminated clothing. Immediately wash contaminated skin with copious amounts of soap wand water, 10% sodium carbonate solution, or 5% liquid household bleach. Rinse well with water to remove excess decontaminate. Administer nerve agent antidote kit, Mark I, only if local sweating and muscular twitching symptoms are observed. Seek medical attention **Immediately**.

#### *Ingestion*

Do not induce vomiting. First symptoms are likely to be gastrointestinal. **Immediately** administer Nerve Agent Antidote Kit, Mark I. Seek medical attention **Immediately**.

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# Characteristics of Nerve Agent VX

Nerve agent VX, which is stored at Newport Chemical Depot in Newport, Indiana, is a member of the organo-phosphate family, similar to present day pesticides. It is a clear, odorless and tasteless liquid with an appearance similar to that of motor oil. VX can become an aerosol (very small droplets) through explosion, or a vapor through ignition. It is heavier than water and evaporates 2,000 times more slowly.

VX is highly toxic in its liquid, aerosol and vapor forms. It is most hazardous when absorbed through the skin. As a vapor or aerosol, it can be inhaled and absorbed through the lungs. It also can be absorbed through the digestive system if eaten or swallowed.

VX is a rapid-acting, lethal nerve agent that affects the nervous system by interfering with the signals sent from the brain to the vital organs and other parts of the body. VX affects the body by blocking the action of the enzyme acetycholinesterase (ACh). When the enzyme is blocked, messages from the brain are short-circuited at the nerve endings. As a result, hyperactivity occurs in the organs stimulated by these nerves. If VX enters the body, convulsions or even death can result.

Atropine and 2-PAM Chloride are pharmaceutical antidotes that relieve the symptoms of VX exposure. They must be injected immediately after exposure to be effective. Common household bleach can be used to decontaminate the skin if contact is made with VX.

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# Indiana Citizens' Advisory Commission

In 1993, as part of the National Defense Act, Congress directed the Army to create Chemical Demilitarization Citizens' Advisory Commissions (CACs) for states in which low-volume chemical weapons stockpiles exist. These states are Indiana, Kentucky and Maryland. The Army also established CACs in states that maintain high-volume chemical weapons stockpiles, such as Alabama, Arkansas, Colorado, Oregon and Utah.

Public involvement is key to the success of the Army's chemical demilitarization program. The Army encourages the public to participate in all phases of the program's decision-making process. The CACs provide a vital informational link between state agencies, the community and the Army.

The Indiana CAC has nine members, all of whom are appointed by the governor. Seven are from the region where the stockpile is located, and two are state officials with technical expertise. Commission members are not paid, but the CAC does receive funding from the Army to cover administrative costs and travel expenses when appropriate.

The CAC is required to meet with a representative from the Secretary of the Army at least twice per year, although many meet more often. At these meetings, members discuss issues surrounding the Chemical Demilitarization Program and its impact on Newport, neighboring communities and the state of Indiana.

The CAC recently provided the Army with valuable input regarding the selection of specific alternative technologies for pilot testing. In a presentation before the Department of the Army and the Defense Integrated Process Team, the Indiana CAC co-chairman emphasized the commission's support for neutralization pilot testing. This level of participation is indicative of the partnership between the Army and the CAC.

For more information regarding CAC activities in Indiana, contact any of the commission members listed below, the Newport Chemical Stockpile Outreach Office at (765) 492-4445, or visit our web site at http://www.cma.army.mil/.

## CAC MEMBERS

**Mr. Patrick Ralston (Co-Chair)**
Director, SEMA
IGC South, Rm. E208
302 W. Washington St.
Indianapolis, IN 46204

**Mr. Dick Setliff (Co-Chair)**
Director, Vigo CSEPP
934 S. 4th St.
Terre Haute, IN 47807

**Mr. Ramon Columbo**
Director, Vermillion CSEPP
259 Vine St.
Clinton, IN 47842

**Mr. Orville Alexander**
P.O. Box 3308
Terre Haute, IN 47803

**Ms. Pamela Ferguson**
RR#4 Box 292B
Rockville, IN 47872

**Rev. Cleytus Malone**
2405 7th Ave.
Terre Haute, IN 47803

**Mr. Larry Bemis**
460 E. Market St.
Newport, IN 47966

**Mr. Charles Stoble**
16339 S. Rangeline Rd.
Clinton, IN 47842

**Dr. Dennis Lewis**
205 Potomac Ave.
Terre Haute, IN 47803

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The Indiana CAC has nine members, all of whom are appointed by the governor. Seven are from the region where the stockpile is located, and two are state officials with technical expertise. Commission members are not paid, but the CAC does receive funding from the Army to cover administrative costs and travel expenses when appropriate.

The CAC is required to meet with a representative from the Secretary of the Army at least twice per year, although many meet more often. At these meetings, members discuss issues surrounding the Chemical Demilitarization Program and its impact on Newport, neighboring communities and the state of Indiana.

The CAC recently provided the Army with valuable input regarding the selection of specific alternative technologies for pilot testing. In a presentation before the Department of the Army and the Defense Integrated Process Team, the Indiana CAC co-chairman emphasized the commission's support for neutralization pilot testing. This level of participation is indicative of the partnership between the Army and the CAC.

For more information regarding CAC activities in Indiana, contact any of the commission members listed below, the Newport Chemical Stockpile Outreach Office at (765) 492-4445, or visit our web site at http://www.cma.army.mil/.

## CAC MEMBERS

**Mr. Patrick Ralston (Co-Chair)**
Director, SEMA
IGC South, Rm. E208
302 W. Washington Street
Indianapolis, IN 46204

**Ms. Pamela Jean Ferguson (Co-Chair)**
RR4, Box 292 B
Rockville, IN 47872

**Mr. Ramon Columbo**
259 Vine Street
Clinton, IN 47842

**Dr. Ronald F. Wukasch**
129 Rockland Drive
West Lafayette, IN 47906

**Mr. Orville Alexander**
P.O. Box 3308
Terre Haute, IN 47803

**Mr. Cleytus Malone**
2405 7th Avenue
Terre Haute, IN 47803

**Mr. Larry Bemis**
460 E. Market Street
Newport, IN 47966

**Mr. Charles Lee Strobel**
RR2, Box 444
Clinton, IN 47842

**Mr. Dick Setliff**
Director
Vigo County Emergency Management
934 S. 4th Street
Terre Haute, IN 47807

**For more information,**
contact the
Public Outreach and
Information Office of the
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**1(800) 488-0648** or
**www.cma.army.mil**

or visit the
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**Stockpile**
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P.O. Box 279
140 South Main Street
Newport, Indiana 47966
**Phone: (765) 492-4445**
**Fax: (765) 492-4475**

FACT SHEET

# Public Outreach and Involvement

The U.S. Army Chemical Materials Agency (CMA) (provisional) is responsible for destroying all U.S. chemical warfare materiel while ensuring the safety of the public, program workforce and the environment. The Army recognizes the importance of an informed and involved public in disposing of chemical weapons materiel. Thus, CMA established the public outreach and involvement program to provide a community forum that enables citizens to learn about the program and provide input regarding its activities.

**Public Outreach Offices.** The Army maintains outreach offices in the communities in which the program's chemical weapons disposal facilities are planned or operating. These communities include Tooele, Utah; Anniston, Ala.; Hermiston, Ore.; Pine Bluff, Ark.; Pueblo, Colo.; Richmond, Ky.; Newport, Ind.; and Edgewood, Md. The local outreach offices provide citizens a convenient, "one-stop" source of information about the program. The offices work closely with the disposal facilities, storage depots, emergency preparedness agencies, elected officials, community groups, individual citizens and others to ensure a comprehensive public outreach and involvement program.

**Outreach Services.** Each outreach office has a large repository of fact sheets, brochures, exhibits and technical studies available to the public. In addition, outreach staff frequently coordinate presentations by facility experts, hold public meetings, distribute information materials and attend community events. Other outreach activities include community roundtables, open houses and joint activities with local agencies, businesses and community groups.

**Community Feedback.** As part of the program's commitment to public outreach and involvement, CMA solicits feedback from the community regarding its outreach efforts. This feedback enables CMA to evaluate the effectiveness of its efforts to increase community awareness and understanding of the program.

**Citizens' Advisory Commission.** Each community in which the Army's facilities are planned or operating has a Citizens' Advisory Commission, or CAC, that represents the community's interests regarding the program's activities. Governors from each state appoint the members of the commissions, which are made up of both citizens and state representatives.

**The Community's Advocate.** The commission serves as the community's voice, ensuring that program decisions are in the community's best interest. Although the CAC does not make program decisions, it does provide the Army guidance and recommendations. CAC meetings are open to the public and announced in local publications. The public is encouraged to attend the meetings, as many provide opportunities for public input and questions.

Outreach office location and contact information can be found on the side bar of this fact sheet.

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contact the
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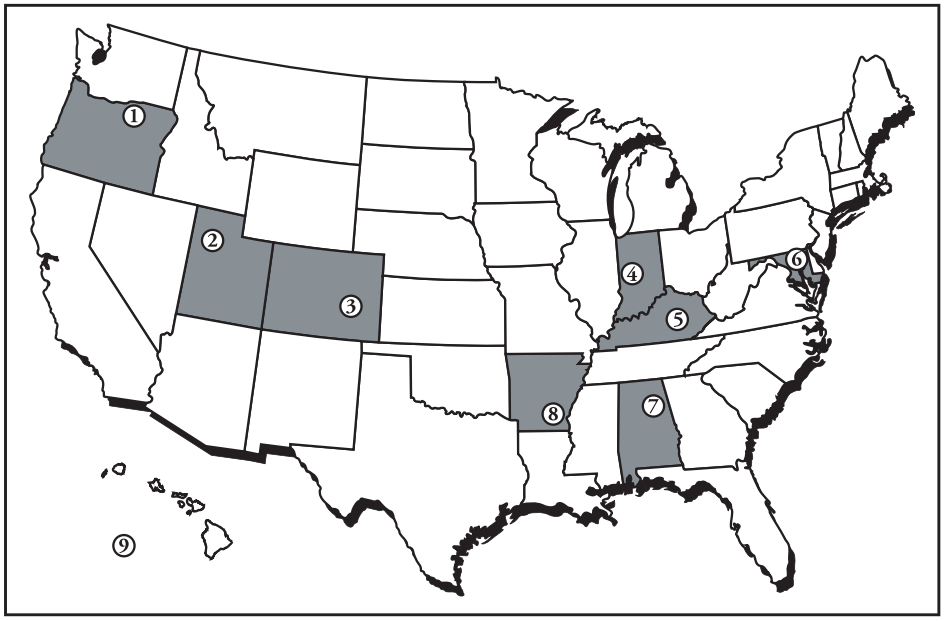


## Outreach Office Locations

**1) Umatilla Chemical Disposal Outreach Office**
190 East Main Street
Hermiston, Oregon 97838
(541) 564-9339 phone
(541) 564-9532 fax

**2) Tooele Chemical Stockpile Outreach Office**
54 South Main Street
Tooele, Utah 84074
(435) 882-3773 phone
(800) 471-1617 toll free
(435) 882-7904 fax

**3) Pueblo Chemical Depot Community Outreach Office**
301 North Main Street, Suite 306B
Pueblo, Colorado 81003
(719) 549-0400 phone
(719) 549-0409 fax

**4) Newport Chemical Stockpile Outreach Office**
140 South Main Street
Newport, Indiana 47966
(765) 492- 4445 phone
(765) 492-4475 fax

**5) Blue Grass Chemical Stockpile Outreach Office**
370 Highland Park Drive, Suite 2
Richmond, Kentucky 40475
(859) 626-8944 phone
(859) 626-8949 fax

**6) Edgewood Chemical Stockpile Outreach Office**
Woodbridge Station
1011B Woodbridge Center Way
Edgewood, Maryland 21040
(410) 676-6800 phone
(410) 676-2483 fax

**7) Anniston Chemical Demilitarization Community Outreach Office**
11 East 10th Street
Anniston, Alabama 36201
(256) 238-0120 phone
(256) 238-0195 fax

**8) Pine Bluff Chemical Stockpile Outreach Office**
Woodlands East
7197 Sheridan Road, Suite 110
White Hall, Arkansas 71602
(870) 534-4901 phone
(870) 247-2335 fax

FACT SHEET

# Frequently Asked Questions

## I oppose using public sewers for further treatment/disposal of nerve agent wastes.

The nerve agent will be neutralized on-site at the Newport Chemical Depot by mixing it with a solution of hot water and sodium hydroxide. What results is a byproduct called hydrolysate. Hydrolysate does not contain any detectable quantities of nerve agent; it is a mixture of water, sodium hydroxide and organic phosphorous and sulfur-containing compounds. The hydrolysate will then be transported to the Perma-Fix facility where it will be further treated by mixing the hydrolysate with an oxidizing compound (such as hydrogen peroxide) so that it can be further treated by biotreatment where microorganisms destroy the remaining organic compounds. Perma-Fix operates under a Clean Water Act National Pollutant Discharge Elimination System Permit issued by the Montgomery County Sewer District. All discharges to the sewer will comply with permit limits imposed on Perma-Fix by the Montgomery County Sewer District.

## Is it possible that the hydrolysate can revert back to nerve agent?

No. Once neutralized the nerve agent is irreversibly destroyed.

## Is the Army speeding up the process to save money?

Though cost certainly is a consideration in any federally funded project, the primary goal is to safely eliminate the potential risk to the public by destroying the VX and disposing of the hydrolysate byproduct as soon as possible in safe and cost efficient manner.

## What if the trucks are hijacked?

For disposal purposes, the hydrolysate is characterized as a hazardous waste. It is similar to other hazardous waste currently transported throughout the United States on a daily basis, and presents no greater potential for hijacking or terrorist type activities than any other hazardous waste. The hydrolysate to be transported will not contain any detectible concentrations of VX Agent, and therefore presents no practical target for terrorist type activities.

All trucks to be used in the transport of hydrolysate are owned and operated by Perma-Fix. The Perma-Fix drivers have direct communication ability at all times with the Transportation Manager at Perma-Fix. In addition, the trucks to be used for hydrolysate will be equipped with a global positioning system (GPS) that allow Perma-Fix to monitor the location of the truck via satellite communication.

## Has neutralization/biodegradation of nerve agent been done before?

The nerve agent is being neutralized (not biodegraded) and this neutralization process will be performed at the Newport Chemical Disposal Facility (NECDF). Biodegradation is only being used to treat the hydrolysate that is produced by neutralization. The hydrolysate will not contain any detectable nerve agent. The neutralization of VX has been performed during a number of demonstration tests prior to initiating the design and construction of NECDF. Several thousand gallons of hydrolysate have been created from the neutralization of VX nerve agent. The hydrolysate was analyzed to confirm that no detectable VX remained (the neutralization was successful). The Army has worked with a number of laboratories, research institutions, and wastewater treatment plants to confirm that hydrolysate is made biodegradable with the simple addition of oxidizing agents (like hydrogen peroxide).

## "Our water, air and sewers will be polluted."

Hydrolysate treatment at Perma-Fix will be observed and verified by independent third parties to ensure both worker safety and protection of the general public and environment. Oversight activities will be conducted by a variety of international groups and federal, state and local regulatory agencies. Perma-Fix operates under a Clean Water Act National Pollutant Discharge Elimination System Permit issued by the Montgomery

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**For more information**
about Perma-Fix of
Dayton, Inc., call:
**Thomas A. Trebonik, CPGS**
**Public Outreach**
**Phone (330) 498-9750**
**Perma-Fix Facility**
**Phone (937) 268-6501**
**ttrebonik@aol.com**
or visit
**www.perma-fix.com/dayton**

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# Frequently Asked Questions (continued)

County Sewer District. All discharges to the sewer will comply with permit limits imposed on Perma-Fix by the Montgomery County Sewer District.

## How prepared are the emergency responders along the transportation route?

The sensitive nature of the project requires that first responders along the transportation route be informed of the project and provided with accurate information and additional training, if necessary. The project also requires an evaluation of the availability of appropriate equipment to ensure emergency preparedness in the unlikely event of an incident. All of these activities will be conducted prior to transport of any hydrolysate from the Newport facility.

## What studies have been done to prove how safe transportation of hazardous waste is?

The transportation of hazardous waste within the United States is highly regulated. All hazardous waste haulers are required to obtain special certification from the U.S. Department of Transportation prior to hauling any hazardous waste. In addition, many states require special Hazardous Waste Transporter Permits for haulers to be able to transport waste within their individual state boundaries. Vehicles are routinely inspected and are equipped with special spill control equipment that can be used in the unlikely event of a spill. In addition, hazardous waste drivers are required to have special training and licenses to transport hazardous waste and are required to be trained in the implementation of contingency plans and emergency response activities.

The Department of Transportation records and maintains a database of transportation related statistics, including safety information. The information is available from the Department of Transportation web site, **www.dot.gov.**

## Is Perma-Fix located near the Great Miami Valley sole source aquifer?

The Perma-Fix facility is located west of Dayton, Ohio in a thin upland aquifer setting with limited ground water resources. It is not located over the Great Miami Valley Aquifer. The main portion of the buried valley aquifer is located approximately 4 miles east of the Perma-Fix facility. A small north-south trending finger of the buried aquifer can be found approximately 2.5 miles south of the Perma-Fix facility.

## What is being done to control odors at Perma-Fix?

Perma-Fix has an active, on-going program to eliminate all odors from the facility. Pre-screening of organic wastewater accepted for biological treatment as well as continuous monitoring of the biological system ensures proper operation and minimizes the potential for odor. In addition, Perma-Fix has recently installed a regenerative thermal oxidizer (RTO) on portions of the facility associated with biological treatment. The RTO is the best available technology available for this purpose and is designed to capture and destroy any potential odor that may be generated by its operations.

Design activities for the installation of additional odor control technology for portions of the facility associated with used oil recycling processes are being completed. Additional control equipment is anticipated to be installed on this portion of the facility by July 2003.

## "If the nerve agent was to get into our drinking water what would it do?"

The hydrolysate to be received at Perma-Fix will be analyzed prior to transport from the Newport facility to Perma-Fix to ensure that the hydrolysate contains no detectible concentration of VX Agent. The fact that hydrolysate will not contain VX Agent and the fact that Perma-Fix is not located in an area of significant ground water resources, eliminate the possibility of ground water impact by VX Agent.