JACOBS

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FINAL COMMUNITY RELATIONS PLAN
NEASE CHEMICAL SITE
SALEM, COLUMBIANA COUNTY, OHIO

JACOBS ENGINEERING GROUP INC.
ENVIRONMENTAL SYSTEMS DIVISION

IN ASSOCIATION WITH:
TETRA TECH
METCALF & EDDY
ICAIR LIFE SYSTEMS
KELLOGG CORPORATION
GEO/RESOURCE CONSULTANTS
BATTELLE PACIFIC NORTHWEST LABORATORIES
DEVELOPMENT PLANNING AND RESEARCH ASSOCIATES

ENVIRONMENTAL PROTECTION AGENCY
TECHNICAL ENFORCEMENT SUPPORT
AT
HAZARDOUS WASTE SITE

EPA REGION V
CONTRACT NO. 68-01-7351
WORK ASSIGNMENT NO. 692

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NEASE CHEMICAL SITE
SALEM, COLUMBIANA COUNTY, OHIO

JACOBS ENGINEERING GROUP INC.
PROJECT NUMBER: 05-B692-00

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1.0 INTRODUCTION

This community relations plan (CRP) identifies issues of community concern regarding the Nease Chemical Superfund site in Columbiana County, Ohio. It has been developed as a guide for community relations activities to be conducted prior to and during the remedial investigation and feasibility study (RI/FS) for the site. The RI/FS is being conducted by the potentially responsible party, Ruetgers-Nease Chemical Company, according to an agreement between Nease, the United State Environmental Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA). The RI/FS is being supervised by U.S. EPA and OEPA. Ruetgers-Nease Chemical Company was formed in 1977 when Ruetgers Chemicals Inc. acquired the assets of, and merged with, Nease Chemical Company.

The CRP has been developed to be specific to the needs of the community affected by the Nease Chemical site. U.S. EPA conducts community relations activities to ensure that the public is kept informed about the remedial response actions at the site, and has input to decisions about these actions. The CRP consists of the following sections:

- o A site description and brief history of the Nease Chemical site.
- o A community profile including a history of community involvement with the site.
- o A discussion of major site-related issues and concern, as well as a community relations objectives and activities.
- o A list of contacts and interested parties (Appendix A).
- o A list of locations for information repositories and public meetings (Appendix B).
- o A list of commonly used acronyms and glossary terms (Appendix C).

Information presented in this CRP was obtained from U.S. EPA and interviews with local officials and residents. Additional information was acquired from site records kept by OEPA, the Columbiana County Health Department, and historical newspaper articles regarding the site. The site history was based on information obtained from the Nease Chemical site files at the Columbiana County Health Department and OEPA. This plan will be updated as the remedial activities at the site move toward completion and community concerns are reassessed.

U.S. EPA's regional office, in Chicago, Illinois, has lead responsibility for managing the RI/FS process, with OEPA providing coordination and assistance. The U.S. EPA will take the lead in community relations activities at the Nease Chemical site.

1.1 Identifying and Addressing Superfund Sites

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, more commonly known as "Superfund"). CERCLA authorizes U.S. EPA to investigate and respond to releases of hazardous substances that may endanger public health and the environment. The 1980 law also established a fund of $1.6 billion to pay for the investigation and cleanup of sites where parties responsible for the problems are unable or unwilling to clean up the sites. Congress amended and reauthorized Superfund in October 1986 through the Superfund Amendments and Reauthorization Act (SARA), increasing the size of the fund to about $8.5 billion.

A potential site is inspected after it is initially identified, usually by a state agency. The state then scores the site using a system called the hazard ranking system (HRS), which takes into account the following factors:

- o Possible health risks to the population;
- o Potential hazards (e.g., from direct contact, inhalation, fire, or explosion) created by substances at the site;
- o Potential for the substances at the site to contaminate the air or drinking water supplies; and
- o Potential for the substances at the site to pollute or harm the environment.

If a site's problems are serious enough, it will be listed on U.S. EPA's National Priorities List (NPL), a national roster of uncontrolled or abandoned hazardous waste sites eligible for investigation and cleanup under the Superfund program.

Sometime after placement on the NPL, U.S. EPA plans and conducts an RI/FS at the site. If a potentially responsible party or parties (PRPs) are found and agree to cooperate, the PRP may then conduct the RI/FS under U.S. EPA supervision. If no PRPs are found, or those identified are unwilling to conduct the RI/FS, the investigation and study are undertaken by U.S. EPA or the state. Costs may be recovered from the PRPs at a later date through legal action.

The RI identifies the type of contaminants present at and near the site, assesses the degree of contamination, and characterizes potential risks to the community. The FS evaluates several remedies for problems at the site. Upon completion of the FS, a 30-day public comment period is held, after which a specific long-term action is selected. A record of decision (ROD) is prepared to document the decision made, provide a summary of comments received during the comment period, and provide U.S. EPA's responses to those comments. Once the ROD is issued, the remedial design and remedial action are implemented.

The time required to complete each of these steps is different for every site. In general, an RI/FS takes between eighteen months and two years. Designing a long-term remedial action, if it is indicated by the FS, may take an additional six months. The final long-term action typically takes one to two years, although treatment of contaminated ground water, if needed, may take decades. If the site poses an imminent threat to public health or the environment at any time during the remedial process, U.S. EPA will immediately intervene with an emergency response action.

2.0 SITE DESCRIPTION AND HISTORY

The inactive Nease Chemical plant is located in north-central Columbiana County, near the City of Salem, Ohio (Figure 1). The 40-acre site is one-quarter mile northwest of the intersection of State Route 14A and Allen Road (Figure 2). The site is crossed by two tracks of a Conrail/Penn Central Railroad and by a buried gas pipeline which runs approximately north to south. The area surrounding the site is mostly rural. A light industrial park is located east of the site; a privately-owned farm containing wooded areas and pasture lands lies north of the site; a rural housing development is located to the northeast; and a residential property lies to the southwest. The City of Salem

Wastewater Treatment plant is located east of the site. This treatment plant is currently under construction to install a new treatment system. The Salem Country Club is south of the site. The Middle Fork of Little Beaver Creek, less than 1500 feet from the site, is the principal surface water body receiving site runoff. This creek flows northward, and then turns southward toward the Ohio River.

The Nease Chemical Company opened its Salem facility in October 1961. The plant produced pesticides, fire retardants, household cleaning compounds and specialty chemical intermediates. Specialty chemical intermediates were sold to other companies for use in agricultural, pharmaceutical, and other chemical products.

In May 1962, an accident at the plant caused the emission of nuisance odors and resulted in an inspection by the Salem City Engineer. In October 1962, the Water Pollution Control Board, a division of the Ohio Department of Health (ODH), notified Nease Chemical Company of the necessity to apply for an industrial waste discharge permit. Prior to this action, ODH held no records of the plant's waste disposal plans. The plant was located in an area not served by sanitary sewers. The Salem city water service was installed in 1962, enabling the company to install devices to control plant odors.

According to an ODH inter-office communication dated November 1, 1962, three evaporation lagoons existed on the Nease Chemical site, with one particularly large lagoon located on the east side of the railroad tracks. This lagoon was described as being "brim full" and seeping along its bank. In addition, it was noted that cooling water from the plant formed a small creek which carried the lagoon's seepage into the Middle Fork of Little Beaver Creek. Results of sampling of the small creek indicated chemical contamination. The ODH Principal District Engineer recommended the plant not be issued a discharge permit without proper wastewater treatment and disposal plans, and suggested the plant cease operations until a treatment system was installed. A neutralization system was installed in December 1962.

In 1962, an ODH investigation of the Salem waste water treatment plant records indicated an unexplained drop in pH of incoming sewage on November 17, 1962. In addition, in mid-November 1962, more than 200 gallons of methyl alcohol from the chemical plant escaped into the Middle Fork of Little Beaver Creek. According to ODH documentation, a fish kill was reported in the Middle Fork Little Beaver Creek on November 23, 1962, by the Department of Natural Resources, Ohio Division of Wildlife, which may have resulted from one or a combination of these incidents. Nease received a warning from the Ohio Division of Wildlife regarding the fish kill incident.

A second fish kill occurred on January 3, 1963, when one of the lagoons on the site failed, releasing approximately two million gallons of waste material into the Middle Fork of Little Beaver Creek. Fish and wildlife were killed as far as 15 miles downstream of the spill. The company was reportedly discharging "neutralized" wastewater directly into the creek without allowing it to settle in the lagoons first. The Columbiana County Health Department concurred with the ODH Principal District Engineer's recommendation that the plant cease operations until a permit for satisfactory industrial waste treatment and disposal was issued.

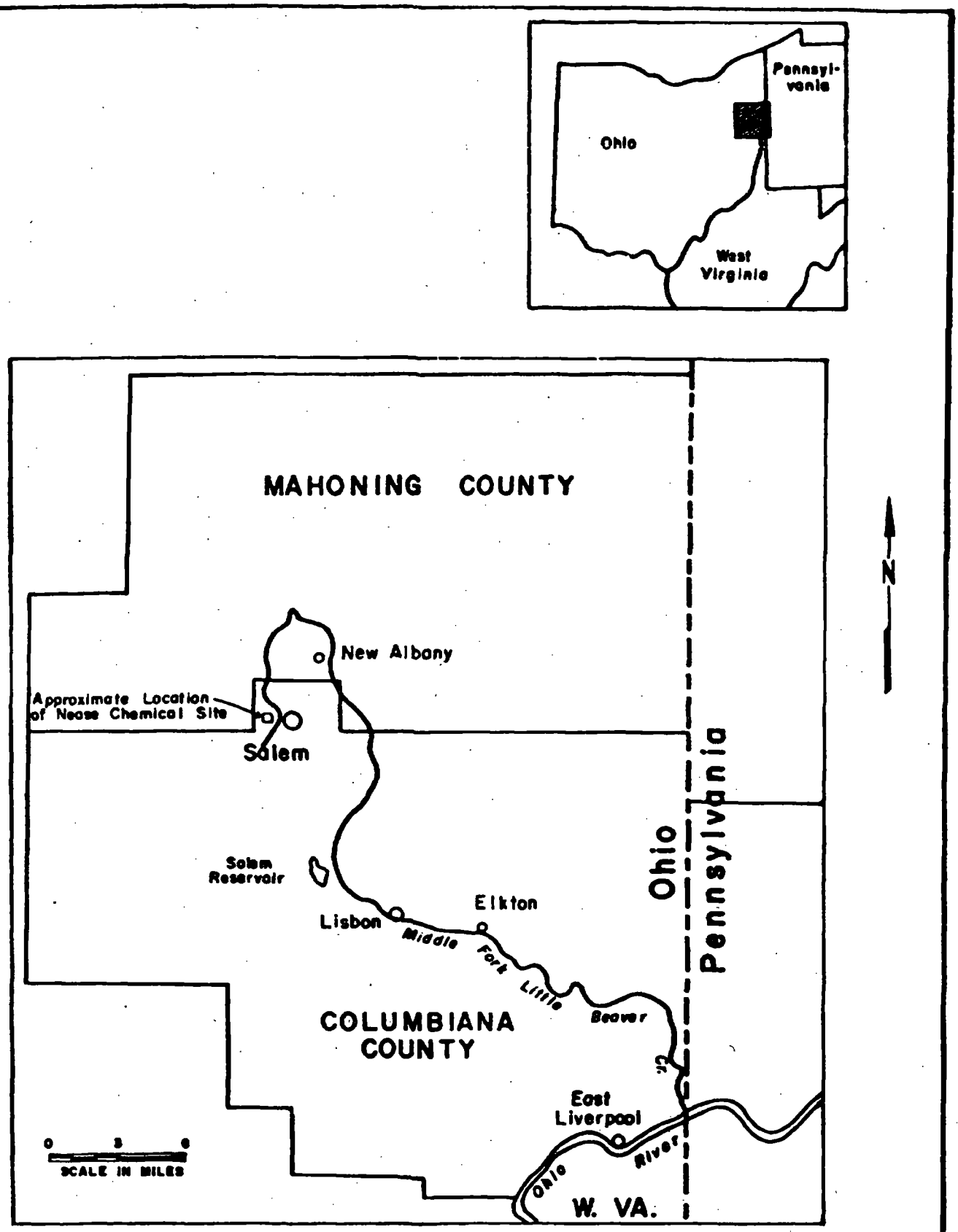

FIGURE 1

Regional Location of Nease Chemical Site, Salem, Columbiana County, Ohio

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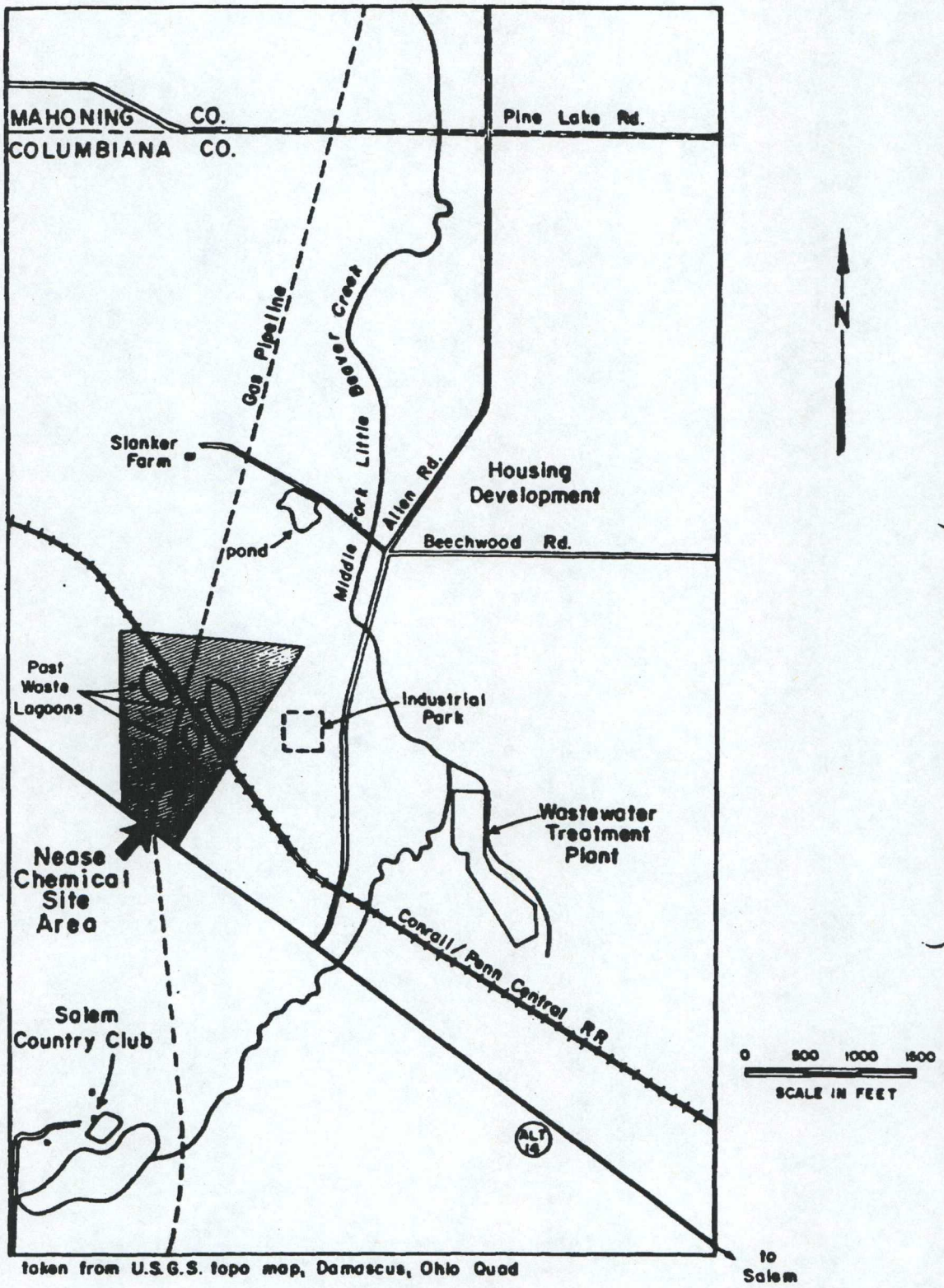

taken from U.S.G.S. topo map, Damascus, Ohio Quad

FIGURE 2

Location of Nease Chemical Site, Salem, Columbiana County, Ohio

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On January 11, 1963, the ODH ordered Nease Chemical Company to cease operations and discharge of all wastes until waste treatment plans were approved by ODH and treatment facilities installed. Following this order, the company proposed to dispose of 7,000 gallons per day of wastes from the plant at a site in Pennsylvania. This proposal was rejected by ODH.

Nease Chemical Company requested and received permission to reopen on March 12, 1963, when a preliminary treatment plan was submitted by the company to ODH. This was confirmed by ODH in a March 25, 1963, letter to the company.

During an ODH inspection conducted on April 4, 1963, the construction of Lagoon No. 7 adjacent to the railroad tracks and northwest of the neutralizing tanks was noted. Samples were collected from Lagoon No. 2, a drainage ditch "just off the Nease property", and the Middle Fork of Little Beaver Creek. Later analyses of these samples indicated seepage from Lagoons 1, 2 and 3 into the drainage ditch. The company manager agreed to correct the seepage problem.

On April 5, 1963, a four-month permit was issued by ODH to Nease Chemical Company for discharge of industrial wastes into "waters of the state".

In May 1963, several complaints were made to ODH and Columbiana County Health Department regarding air pollution from the Nease Chemical plant. The company acknowledged the existence of odors from the plant. An agreement was later reached between the company and the Columbiana County Board of Health to correct the atmospheric pollution problem.

ODH conducted a site inspection on August 5, 1963, when samples of the stream at the culvert on Allen Road were collected. A toxicity test was conducted by placing a fish in one of these samples; the fish placed in the sample died within 30 minutes. According to ODH, the fish died from "the chlorides present in the sample and not from the toxicity of the organic wastes."

Plans for a proposed dike for a tank farm storage area for the Nease Chemical plant were approved September 30, 1963. No additional information regarding the tank farm storage area is available.

After the April 5, 1963, permit expired in August 1963, Nease Chemical Company submitted a permit renewal application to ODH. Because the company failed to comply with the permit's conditions and compliance information was not supplied with the renewal application, the company was requested to meet with ODH Office of Sewage and Industrial Wastes. Information required for permit renewal was not submitted to ODH as of December 3, 1963. However, the permit was later renewed according to ODH correspondence dated January 10, 1964. Renewal of the industrial discharge permit was confirmed by ODH on January 28, 1964. The new permit was to expire on May 1, 1964, and contained conditions, including the continued monitoring of Middle Fork of Little Beaver Creek to evaluate the effect of any industrial waste discharges from the plant on the quality of the stream. This permit was again renewed July 3, 1964.

In February 1964, an evaluation of the proposed treatment of wastewaters from the plant in the Salem sewage treatment plant was conducted by Nease Chemical Company and the City of Salem. At that time, and according to the industrial discharge permit, Ohio Industrial Waste, Inc., of Lisbon, Ohio, was disposing of Nease's "phenol-bearing wastes" and neutralized acid waste. In addition, documentation dated September 11, 1964, indicated ODH approval of installation and use of a sludge drying bed at the plant.

Detailed information on the location and purpose of the sludge drying bed was not available.

Additional complaints of noxious odors from the chemical plant were made in the spring of 1965, and the county health department notified the company. The company pledged to continue the efforts to abate fumes and odors. The health department also requested assistance from the Air Pollution Unit of the ODH regarding this matter. A September 14, 1965 ODH report indicated that in 1965 the company was producing a variety of organic compounds for the plastics, metal plating, oil refining, and pharmaceutical industries as well as intermediates for the manufacture of insecticides, bactericides and mitecides. The report stated that all operations being vented out-of-doors were well controlled and should not, under normal and unchanged process conditions, present significant air pollution problems. It also stated that no serious air pollution problem existed at the plant at the time of the investigation.

The industrial discharge permit for Nease Chemical Company was renewed by ODH on October 15, 1965, September 21, 1966, and June 13, 1968.

In March 1968, the company retained a local firm, Howells and Baird (a civil engineering and surveyor company), to prepare plans for a sewer connection and propose improvements to the plant's waste handling facilities. On July 1, 1968, Howells and Baird presented their proposed plan to ODH. According to this plan, the plant effluent was still being discharged to Lagoon No. 2, and the waste from Lagoon No. 2 was pumped into adjacent holding/neutralization tanks. The lime slurry was pumped to Lagoon No. 3. Lagoon No. 7 was nearly full of sludge and not in use. In addition, an open ditch along the railroad tracks was receiving "fresh water" from the plant's boilers, air conditioning, and evaporation systems. This ditch carried acid seepage from Lagoon No. 7 and continued to flow under the railroad through a 21-inch culvert adjacent to Lagoon No. 3, receiving additional seepage.

In July 1968, the issue of air pollution arose again when Ohio State Senator John Longsworth became involved in site concerns. Senator Longsworth requested the Air Pollution Unit of the ODH to provide technical assistance for air monitoring. The Air Pollution Unit trained private citizens in the use of air monitoring equipment. Monitoring for airborne hydrochloric acid, ammonia, and sulfur dioxide was conducted by these citizens in July and August 1968. The results of sampling efforts were compared with air data from various cities in the United States and available established standards.

There still were problems with contamination of the Middle Fork of Little Beaver Creek in July 1968, according to an ODH response to a citizen complaint. A small electrical fire also occurred at the plant in late July, according to ODH records.

The industrial waste discharge permit was again renewed by ODH on April 9, 1969. Correspondence dated June 17, 1969, notes that Nease Chemical Company was progressing on the installation of the "force main system" to the Salem wastewater treatment plant. The company's industrial discharge permit was renewed on October 15, 1969, and November 12, 1970.

A March 16, 1971, a chemical analysis sheet acquired from records of the Columbiana County Health Department indicated the presence of xylene, hypochlorites, and aluminum hydroxide in a "...marked stream, Columbiana County..." sample.

According to ODH records, eight to ten thousand gallons of benzene sulfonyl chloride were accidentally released from a ruptured tank on the site on August 6, 1971. About

1,000 gallons of this material was believed to have reached the creek and would sink to the stream bed. Company personnel treated the spill with ammonia to "...reduce toxicity of vapors...". The plant was not cited by ODH for any violations because the incident was determined to be an accidental failure of plant equipment. No fish kill was reported as a result of this accident.

On May 11, 1972, the ODH issued a new industrial discharge permit to Nease Chemical Company with several stipulations. On October 1, 1973, a consent judgment was issued by the State of Ohio. In this judgment, the company was ordered to remove all chemicals from the site and neutralize the holding ponds by July 1, 1974; neutralize and remove impounded water from the site; grade and provide ground cover by December 31, 1975; and submit a compliance schedule to the OEPA by February 1, 1974. According to OEPA, site closure was completed in 1975. As part of this closure, all chemicals except those needed to neutralize the ponds were removed from the site, some ponds were covered with clean soil, and all equipment, facilities and structures (with the exception of a warehouse and former utility room) were removed.

On December 31, 1977, Ruetgers-Nease Chemical Company was formed when Ruetgers Chemicals Inc. acquired the assets of, and merged with, Nease Chemical Company.

U.S. EPA conducted a field assessment of the site in 1980, and OEPA and ODH formally investigated the site in 1982. In the fall of 1982, SMC Martin, a geotechnical consultant to Ruetgers-Nease, submitted plans to OEPA for an environmental assessment of the site. Upon approval of the plan, SMC Martin supervised drilling of soil borings and ground water wells, conducted geophysical investigations, and collected samples of surface water, soil and sediment. The environmental assessment, completed in September 1984, reported past operations at the Nease Chemical site resulted in contaminations of soils, surface water, ground water, and sediment. Buried drums were also found during the geophysical surveys which was confirmed through excavations on the site by Ruetgers-Nease personnel. The drums were removed in 1983. The site was placed on the NPL on September 30, 1983.

Since 1982, Ruetgers-Nease has cooperated with OEPA and has performed a number of remedial actions at the site, including the removal of materials from a pond, two other contaminated areas, drums, and a portion of the drainage ditch along the railroad tracks. They have also installed an underground tank for collection of on-site leachate, erected barriers to control sediments and surface water runoff, and fenced the southern half of the facility.

The consent agreement issued on January 27, 1988, required Ruetgers-Nease Chemical Company to conduct an RI/FS consistent with the National Contingency Plan, 40 CFR Part 300 as amended, and CERCLA with oversight by the U.S. EPA and OEPA. The RI is scheduled to begin in the fall of 1988.

3.0 COMMUNITY PROFILE

Salem was first settled in 1803, by members of the Society of Friends (Quakers) who came from Pennsylvania, New Jersey, Maryland, and Virginia. The town was laid out in 1806 on the corners of four townships: Goshen, Green, Butler, and Salem. Perry Township, which completely encircles the town of Salem, was later established. Salem was widely known as the headquarters of an anti-slavery society years before the Civil War. It also was the site of the first Women's Suffrage Convention held in Ohio in 1850. The founding of Salem is celebrated each year with a four-day "Salem Jubilee" on the third weekend of July.

Salem is an industrial town with an area population of 18,000, according to the 1980 U.S. Census. The town itself has a population of 13,108. It is located in eastern Ohio in an area rich in farming and dairy operations. The town is between Pittsburgh, Pennsylvania and Cleveland, Ohio in northern Columbiana County. More than 60 industries with five to 750 employees make up the industrial community of Salem. Major area manufactures include producers of rolling mills; pressed and molded plastics; electric furnaces; plumbing ware; furniture; hydraulic valves; mining equipment; and labels. The Salem Area Industrial Development Corporation (SAIDC) is a local organization consisting of the area's top business, professional and industrial leaders. SAIDC offers assistance and expertise in the areas of finance, transportation, utilities and community data for Salem's industrial development. The organization also maintains a continuing program of land acquisition and development to assure adequate space for new and expanding industries.

Salem has a regional campus of Kent State University. Allegheny Wesleyen College is also located in Salem. The Salem Trade Extension offers adult education programs as well.

As have most of the small towns in Ohio, Salem has suffered economically. People in the area are sensitive to this issue. According to the mayor of Salem, most people work in small industries. The largest employer in Salem is Warren Molded Plastics, Inc., a local plastics company. According to a Salem Health Department survey, about half of the primary wage earners are employed in Salem. Almost half of those surveyed have less than $20,000 combined yearly household income.

The community is preparing for an election for several county commissioners. The last election, which was highlighted by the election of a new mayor, involved heated debate regarding increased sewer rates. The rates were increased in order to meet U.S. EPA's Clean Water Act mandate requiring water treatment plants to meet U.S. EPA standards. Many citizens in the community were upset with the rate increase, repealing the issue twice at the ballot. However, the Salem City Council overrode both repeals and the rate was increased. There is still dissatisfaction with the availability of funding for communities which have complied with the mandate. This issue has created some animosity toward the U.S. EPA in the community. There seems to be a divided consensus on this issue between economics and environmental protection. Citizens are generally oriented toward economic issues since they are protective of their jobs. However, public opposition halted a Canadian chemical plant's attempt to locate in Salem in the mid-1970's, indicating a concern for protection of public health.

3.1 Media

There are several newspapers in circulation in the Salem area. They are the Salem News, Morning Journal, Youngstown Vindicator, weekly Farm & Dairy, and Evening Review. The Salem News is the most widely read newspaper in the community with a circulation of 9,500 in Salem, Lisbon and rural areas. The Evening Review is affiliated with Salem News and is circulated primarily in the East Liverpool area. The Chamber of Commerce also publishes a bimonthly newsletter, which is distributed to 270 members.

Radio stations in Salem include WSOM-AM and WQXK-FM. The community also listens to WKBN - AM/FM station in Youngstown.

3.2 Community Involvement with the Nease Chemical Site

The local chamber of commerce initially assisted Nease Chemical Company in locating its plant in Salem. At that time it was thought that the company, who was relocating from Pennsylvania, made medical or pharmaceutical supplies.

Citizen involvement with the site began as early as May 20, 1962, when a petition signed by 35 people was presented to the Perry Township Trustees at a township meeting in protest of odors from the plant. Two days later, 75 people attended a Perry Township Board of Trustees meeting at the Perry Township Hall protesting odors from the Middle Fork of Little Beaver Creek. At this meeting, citizens stated that animals would not drink water from the creek. Complaints were also received by the Columbiana County Health Department as early as March 1962. One complaint was from a man living on Pine Lake Road whose ponies would not drink from the creek. He was forced to haul his ponies to another water source daily because the stream had a foul odor. Additional complaints of odors in the air and from the creek along Pine Lake Road were received later that year.

In 1962, the Columbiana County Forests and Parks Council became involved with the site. They filed complaints with ODH on pollution of the stream in July 1962 and in January 1963. The council maintained some direct communication with Nease Chemical Company, and attempted to conduct its own sampling of the stream originating on the company property and flowing into the Middle Fork of Little Beaver Creek. Further inquiries on the operation practices of the company were made by the council to the ODH in August 1963.

Additional complaints of air pollution and odorous fumes emanating from the plant were received by ODH and the Columbiana County Health Department from a resident on Benton Road in the spring of 1963. These complaints were addressed at a meeting of the Columbiana County Board of Health on May 20, 1963, which was attended by more than 30 residents and several Nease Chemical Company representatives. The company agreed to put forth an effort to correct the air pollution problem at this meeting by June 17, 1963. In November 1963, the county health department again received complaint of "...seepage running across a cow pasture..." which had a terrible odor.

Complaints of odors from the plant continued into 1965 and the problem was again addressed at a Columbiana County Board of Health meeting in September of that year. At this meeting the Board of Health ordered the company to abate the odor problem.

In 1967, a group of 37 citizens filed an injunction against Nease Chemical Company. The case was delayed because of a backlog of cases in the local courts.

Citizen concern led to the involvement of Ohio State Senator John Longsworth in 1968. As discussed in the site history, Senator Longsworth requested air monitoring from ODH.

In 1970, a Perry Township Trustee who represented and assisted residents near the plant was accused of harassment by Nease Chemical Company in a federal lawsuit filed in the U.S. District Court in Cleveland. Many citizens continued to complain about damage to the Middle Fork of Little Beaver Creek, and the emission of irritating and odorous gases from the plant. Local news media addressed this issue and the plant's historical problems with citizen complaints of pollution in a 1971 article.

In February 1988, ODH issued an advisory for the Middle Fork of Little Beaver Creek against consumption of fish caught in the stream. This advisory was the result of fish sampling conducted in the Middle Fork of Little Beaver Creek by OEPA during the summer and fall of 1987. The sampling indicated contamination of fish tissue in the creek from the site to the Lisbon Dam.

Several residents of Salem, as well as the community group known as Citizens Opposing Pollution (COP), have expressed concerns about the site to U.S. EPA, OEPA and ODH. COP is a citizens' organization based in Lisbon, Ohio. Both Salem residents and COP members have expressed concerns regarding the extent of ground water contamination, fish and sediment contamination and the cleanup of the Middle Fork of Little Beaver Creek.

4.0 ISSUES AND CONCERNS

According to a survey conducted by the Salem City Health Department, approximately seven percent of those surveyed considered chemicals and toxic waste as the biggest environmental health problem in the city. Public interest was stirred with the public meeting held by the U.S. EPA on February 3, 1988, and is likely to increase as remedial activity at the site increases.

A list of community concerns follows. The list was based on interviews with local officials and community residents on April 12 and 13, 1988.

Contamination of Middle Fork of Little Beaver Creek

Many citizens are concerned with the severity of contamination of the Middle Fork of Little Beaver Creek. They believe the current fish advisory was implemented by ODH without explanation of the danger. Some citizens think signs about the advisory could have been posted in more specific areas where people fish and swim. Particular concern for a Boy Scout camp along the creek was expressed. Citizens are also concerned about direct contact with the creek water and sediments. It was suggested that the children who live near the creek should be educated about mirex. In addition, several individuals stated concern for the tributaries of the creek, and asked if the fish advisory extends to these areas. Several remarks regarded the existence of a pipeline from the site to the Salem water treatment plant and the possibility of additional contamination of the creek from this pipeline. One individual stated he thought a water line runs along the railroad tracks where the drainage pipe is, and he was concerned with contamination of the water line.

Contamination of Groundwater and Private Wells

The extent of groundwater contamination is of great concern to residents near the site who have private wells as well as to other citizens in the community. The primary concern is for the quality of drinking water from private wells. Concern was also expressed about an artesian spring along Country Club Lane from which citizens of Salem

obtain drinking water. Residents of Salem are also concerned that the underground migration of contamination may reach swimming areas such as the Salem Country Club's lake and a man-made pond on the Slanker family farm adjacent to the site. Most people want the extent of contamination more clearly defined. Some concern was also expressed regarding the effects of groundwater and surface water contamination on property values near the site and along the Middle Fork of Little Beaver Creek.

Health Effects

Several statements were made regarding effects on the health of former workers at the plant. This included the desire for some form of monetary compensation to the workers, and the observation that there seemed to be an unusually high incidence of pancreatic cancer in the area. Recommendations for U.S. EPA to examine the dangers of the site and possible health effects of exposure were proposed.

Public Awareness About the Site

The community wants to be kept informed about activities at the site. The interviewed citizens also believe information should be presented in layman's terms to avoid confusion and misunderstanding. Some believe they were not totally informed by OEPA of site activities prior to U.S. EPA's involvement at the site. Because the site is located outside the city limits of Salem, there seems to be some confusion over whose jurisdiction (the city or county) the site is in. The confusion may be a result of separate city and county health departments.

5.0 COMMUNITY RELATIONS OBJECTIVES AND ACTIVITIES

To prepare for upcoming RI/FS activities at the Nease Chemical site, a set of community relations objectives and activities has been developed to ensure that communities near the site and interested officials are informed about remedial activities and have an opportunity to participate in the remedial process.

5.1 Community Relations Objectives

The following objectives have been developed as a guideline for the implementation of community relations activities:

- **Educate area residents and local officials about the U.S. EPA Superfund process.**

  Residents are not familiar with the Superfund process or the role of the U.S. EPA in hazardous waste site activities. Recent federal requirements affecting the local waste water treatment plant may be confused with the goals of the Nease Chemical site cleanup. Public education on the various divisions within the regional U.S. EPA and their responsibilities, as well as the distinction between the OEPA and U.S. EPA, should be addressed so the community has a basic understanding of the purpose of U.S. EPA involvement at the site. The city and county health departments should also be kept informed as site work progresses.

- **Educate the community about the remedial process at the Nease Chemical site.**

  Residents should be provided information on technical activities at the site as they occur in the remedial investigation. The purpose, progress, and schedule of activities during the remedial investigation should be provided. Particular attention should be given to individuals requiring specific information, such as residents whose wells or property have been sampled. U.S. EPA's public meeting on February 3, 1988 was the starting point for dissemination of this information.

- **Educate the community on the potential impact of the site on human health and the environment.**

  The current fish advisory included posting of warning signs against consumption of fish from the Middle Fork of Little Beaver Creek. U.S. EPA, OEPA and ODH have worked to obtain more detailed signs for the area affected by the advisory. Signs were posted along the affected portions of the creek during the summer of 1988. These signs read as follows: "The Ohio Department of Health advises against swimming, wading or consuming fish caught in this area." Additional mechanisms should be developed to increase the public's understanding of the potential impact of the site on human health.

- **Provide updated site information as often as possible.**

  The site's impact on the Middle Fork of Little Beaver Creek affects a greater population than just nearby residents. The community, including local and area officials, should be provided current, accurate information about site activities. This objective would benefit from the use of fact sheets and the news media, reducing the likelihood of rumors. Fact sheets or site updates should be provided in quantity to local or area officials who can assist in the dissemination of information.

- **Establish a communication link between U.S. EPA and interested parties.**

  U.S. EPA should establish a strong, positive relationship with all interested parties. This can be achieved through a U.S. EPA contact person who can provide answers to the public in a timely manner. The U.S. EPA contact can establish communication through periodic one-on-one telephone conversations or individual interviews.

5.2 Community Relations Activities

SARA requires certain community relations activities to be conducted at designated milestones during the remedial process. U.S. EPA undertakes additional activities to strengthen communication with communities. Activities to be conducted during the RI/FS process at the Nease Chemical site are discussed below. Figure 3 illustrates the timing of each activity during the remedial schedule for the site.

Public Comment Period. A minimum 30-day public comment period will be held after completion of the FS and U.S. EPA's selection of a recommended alternative. The purpose of the comment period is to enable all interested parties, including local officials, residents, groups, and PRPs, an opportunity to express their opinions about the selected alternative and participate in the final decision-making process for site cleanup. The comment period will be announced by an advertisement published in either the Salem News, Youngstown Vindicator, Morning Journal, or Evening Review. A press release announcing the comment period will be sent to the local news media. U.S. EPA will also directly contact interested parties on the mailing list contained in Appendix A of this plan.

Published Notices. Before adoption of any plan for remedial action, SARA requires a notice and brief analysis of the proposed plan to be published in a major local newspaper of general circulation, such as the Salem News, Youngstown Vindicator, Morning Journal or Evening Review. A notice explaining the final remedial action plan adopted by U.S. EPA will be published and the plan will be made available to the public before commencement of any remedial action. Notices or advertisements will also be published to announce all public meetings sponsored by U.S. EPA.

Public Meetings. SARA requires an opportunity for a public meeting prior to the selection of a remedial action for a Superfund site. A public meeting held during the public comment period will provide an opportunity for the public to directly express its concerns to U.S. EPA, as well as to ask questions and comment on the recommended remedial alternatives. Public meetings may also be held at other times during the RI/FS process, such as the start of the field work Figure 3 phase of the RI/FS and at the conclusion of the remedial investigation. If the level of interest does not warrant a formal public meeting, U.S. EPA may hold an availability session, during which U.S. EPA officials, including the Community Relations Coordinator and Remedial Project Manager, will be available to discuss the site with interested parties. The meeting time and place will be coordinated with local officials and interested citizens. Planning for public meetings should remain flexible to account for fluctuations in public interest. Possible meeting locations are listed in Appendix B. The first public meeting for the Nease Chemical site was held February 3, 1988, in the City Council Chambers at the Salem City Hall.

Public Meeting Transcript. A verbatim transcript will be taken of the public meeting held during the public comment period on the U.S. EPA recommended alternative. U.S. EPA will place copies of the transcript in the information repositories for the site. Transcripts for other public meetings may also be taken depending on the community interest. A transcript of the first public meeting can be found in the information repositories for the Nease Chemical site.

Figure 3

Implementation Timeline of Community Relations Activities For Remedial Investigations and Feasibility Studies Nease Chemical Site Columbiana County, Ohio

Activity	Work Plan Completion/ Site Work Commencement	Final Remedial Investigation Report	Final Feasibility Study Report	Remedial Design	Initiation of Remedial Action
1. Public Comment Period			|_____|		
2. Published Notices	|_____|		|_____|		|_____|
3. Public Meeting	|_____	provide as needed	_____|		
4. Responsiveness Summary				|_____|	
5. Update Information Repositories	|_____	as needed	_____	_____	_____|
6. Revision of CRP		|_____	as needed	_____	_____|
7. Meetings with local officials and interested groups			|_____ provide as needed	_____	_____|
8. Update reports			|_____ provide as needed	_____	_____|
9. Fact sheets	|_____|	|_____|	|_____|	|_____|	|_____|
10. Press releases			|_____ provide as needed	_____	_____|
11. Mailing list			|_____ update as needed	_____	_____|
12. Information contact			|_____ provide as needed	_____	_____|

Responsiveness Summary. All comments received during the public comment period will be addressed in a document called a responsiveness summary. This report is required by SARA as part of the record of decision (ROD), which will summarize the way in which the final cleanup action for the site was chosen by U.S. EPA. The responsiveness summary will document how U.S. EPA responded to and incorporated each public comment into the ROD. U.S. EPA will place copies of the ROD in the information repositories for the site.

Establish an Information Repository. An information repository is a file which contains a series of site-related documents and general information about the Superfund program, including consent orders, work plans, reports, and copies of applicable laws. The repository allows easy public access to information on the nature of site problems and remedial activities. It also enables citizens to review all site-related documents approved by the U.S. EPA or the OEPA for public disclosure. Two information repositories have been established for the Nease Chemical site at the Salem City Library and at the Lepper Library in Lisbon (see Appendix B).

Revised Community Relations Plan. After the ROD has been signed by U.S. EPA, this CRP will be revised to account for changing concerns of the community. The revised CRP will update and verify the information contained in this plan, assess the community relations program to date, and develop community relations activities appropriate for the cleanup phase of the project. U.S. EPA will place copies of the revised CRP in the information repositories for the site.

Meetings with Local Officials and Interested Groups. Various city and county officials have indicated they want to be kept informed about activities at the Nease Chemical site. U.S. EPA will meet with these individuals at various key times throughout the remedial process when requested.

Update Reports. A series of update reports will be issued by U.S. EPA whenever new or pertinent information is available on the Nease Chemical site. The updates will be produced and distributed periodically during the Superfund process as deemed necessary by U.S. EPA. U.S. EPA will place copies of update reports in the information repositories for the site.

Fact Sheets. Fact sheets, developed at certain times during the RI/FS process, are intended to provide the community with information about the site in layman's language. A fact sheet will be released at the beginning of the remedial investigation to explain the activities to be conducted during the study and the Superfund process. A second fact sheet will be prepared to explain the findings of the RI/FS and to outline each of the remedial alternatives being considered for cleanup of the Nease Chemical site. A detailed description of U.S. EPA's recommended remedial alternatives will also be provided in this fact sheet. An additional fact sheet may be issued to describe the remedial design and remedial action phases to be implemented at the site. U.S. EPA will place copies of the fact sheets in the information repositories for the site.

Press Releases. Prepared statements will be released to local newspapers, radio and television stations to announce the discovery of any significant findings at the site during the RI/FS, and to notify the community of any public meetings or public comment periods. Additional press releases are advisable at the completion of the draft FS report and prior to initiation of the remedial action. The press releases

should be mailed to the media list in Appendix A. U.S. EPA will place copies of the press releases in the information repositories for the site.

Mailing List. A mailing list of contacts and interested parties is provided in Appendix A of this CRP. A mailing list of residents and other interested individuals is also maintained by U.S. EPA. These lists will be updated throughout the RI/FS process.

Establish an Information Contact. The U.S. EPA Community Relations Coordinator will serve as the main point of contact to receive and respond to requests for information on the site and to coordinate the implementation of this plan.

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APPENDIX A

MAILING LIST OF CONTACTS AND INTERESTED PARTIES

Federal Officials

Daniel Bicknell
Remedial Project Manager
U.S. EPA Region V
230 S. Dearborn Street
Chicago, IL 60604
(312) 886-7341

Jennifer Hall Beese
Office of Public Affairs
U.S. EPA Region V
230 S. Dearborn Street
Chicago, IL 60604
(312) 886-4359

Jonathan McPhee
Office of Regional Counsel
U.S. EPA Region V
230 S. Dearborn Street
Chicago, IL 60604
(312) 886-5348

Federal Elected Officials

The Honorable John H. Glenn, Jr. Senator (D)

Washington DC Office
503 Hart Senate Office Building
Washington, DC 20510
(202) 224-3353

District Office
200 N. High Street, Room 400
Columbus, OH 43215
(614) 469-6697

The Honorable Howard M. Metzenbaum (D)

Washington DC Office
140 Russell Senate Office Building
Washington, DC 20510
(202) 224-2315

District Office
200 N. High Street, Room 405
Columbus, OH 43215
(614) 734-5315

The Honorable Douglas Applegate, Representative (D)

Washington DC Office
2248 Rayburn House Office Building
Washington, DC 20515
(202) 225-6465

District Office
501 Federal Building
200 W. 2nd Street
Dayton, OH 45402
(513) 225-2843

State Agency Officials

Dr. Richard Shank, Director
Ohio Environmental Protection Agency
1800 Watermark Drive, P.O. Box 1049
Columbus, OH 43204
(614) 644-3020

Susan MacMillan, Project Coordinator
Ohio Environmental Protection Agency
Office of Corrective Actions
Northeast District Office
2110 E. Aurora
Twinsburg, OH 44087
(216) 425-9171

Kathy Davidson
Ohio Environmental Protection Agency
Office of Corrective Actions
P.O. Box 1049
Columbus, OH 43215
(614) 644-2824

Linda Whitemore
Public Interest Center
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, OH 43215
(614) 644-2166

Rod Beals
Ohio Environmental Protection Agency
Office of Corrective Actions - NEDO
2110 E. Aurora
Twinsburg, OH 44087
(216) 425-9171

State Elected Officials

The Honorable Richard F. Celeste (D)
Governor
State House
Columbus, OH 43266-0601
(614) 466-3555

The Honorable John Shivers
Ohio House of Representatives, District 3
State House
Columbus, OH 43215
(614) 466-8022

The Honorable Robert Burch
Ohio State Senate, District 30
State House
Columbus, OH 43215
(614) 466-6508

Local Elected Officials and Agencies

Mayor Alvahn Mondell
Salem City Hall
231 S. Broadway
Salem, OH 44460
(216) 332-4241

Glenn E. Ward, Director
Columbiana County Health Department
Box 396
Lisbon, OH 44432
(216) 424-9511

David Baldwin, Health Commissioner
Columbiana County Health Department
Box 396
Lisbon, OH 44432
(216) 332-1618

Dr. Oscar Budde, Health Commissioner
Salem Board of Health
414 S. Lincoln Avenue
Salem, OH 44460
(216) 332-1618

Paula Cope, Sanitarian
Salem Board of Health
414 S. Lincoln Avenue
Salem, OH 44460
(216) 332-1618

Marjorie Greenisen, Nurse
Salem Board of Health
414 S. Lincoln Avenue
Salem, OH 44460
(216) 332-1618

David Halverstadt, County Commissioner
29919 Georgetown Road
Salem, OH 44460
(216) 537-2288

Nancy Cope, County Commissioner
1178-B S. Lincoln Avenue
Salem, OH 44460
(216) 332-1143

Don Lowe, County Commissioner
629 E. Park Avenue
Salem, OH 44460
(216) 482-3686

Galen Greenisen, Perry Township Trustee
1904 Depot Road
Salem, OH 44460
(216) 337-9872

Michael Halleck, Perry Township Trustee
1285 Pembrook Drive
Salem, OH 44460
(216) 332-1729

Mr. Joyce Wilson, Perry Township Trustee
262 Brooklyn Avenue
Salem, OH 44460

Dean Hively, Pres., Salem City Council
Salem City Hall
231 S. Broadway
Salem, OH 44460

Connie Alexander, Salem City Council
189 W. Wilson Street
Salem, OH 44460

Don Weingart
Division of Water
City of Salem
231 S. Broadway
Salem, OH 44460
(216) 337-8723

Steven Novoyosky, Salem Service Director
Salem City Hall
231 S. Broadway
Salem, OH 44460
(216) 337-3005

Mrs. Stevens
Salem Public Library
821 E. State Street
Salem, OH 44460

Citizen Organizations and Other Represented Groups

John Zimman, Clergy
Holy Trinity Lutheran Church
1089 E. State Street
Salem, OH 44460
(216) 332-9584

Allen Cleveland, Exec. Vice President
Salem Chamber of Commerce
713 E. State Street
Salem, OH 44460
(216) 332-4241

Save Our County
1242 Sta. A
E. Liverpool, OH 43920

Boy Scouts of America
c/o Jerry Bieler, Director
265 N. Lincoln Way
Lisbon, OH 44432

Salem Country Club
c/o Jerry Wolford, Pres.
157 W. 12th Street
Salem, OH 44460
(216) 332-5433

Salem Area Industrial Development Corp. (SAIDC)
Jack Howells, Pres.
713 E. State Street
Salem, OH 44460
(216) 337-3473

Salem Ministerial Association
Rev. David Bloor
244 S. Broadway
Salem, OH 44460
(216) 337-8822

Bev Rittiger
COP
P.O. Box 155
Lisbon, Ohio 44432

Lisbon, Ohio 44432

Media

Newspapers

Gail Beck
The Salem News
161 N. Lincoln
Salem, OH 44460
(216) 332-4601

Mary Steinert-Ng
The Salem News
161 N. Lincoln
Salem, OH 44460
(216) 332-4601

The Morning Journal
308 W. Maple Street
P.O. Box 249
Lisbon, OH 44432
(216) 424-9541

Quaker Heritage
645 E. State Street
Salem, OH 44460
(216) 332-1511

East Liverpool Evening News - Lisbon Bureau
43 N. Park Avenue
Lisbon, OH 44432
(216) 424-5162

The Vindicator
107 Vindicator Square
Youngstown, OH 44503
(216) 747-1471

Radio

WSOM AM/WQXK FM
Business and Sales Office
465 E. State Street
Salem, OH 44460
(216) 337-9544

WKBN Broadcasting Corp.
Business Office
3930 Sunset Boulevard
Youngstown, OH 44512
(216) 782-1144

WELA FM/WOHI AM
15655 State Route 170
East Liverpool, OH
(216) 385-1040

Television

WFMJ TV-21
101 W. Boardman Street
Youngstown, OH 44503
(216) 744-8821

WKBN Broadcasting Corp.
Business Office
3930 Sunset Boulevard
Youngstown, OH 44512
(216) 782-1144

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APPENDIX B

LOCATIONS OF INFORMATION REPOSITORIES AND PUBLIC MEETINGS

Information Repositories

Salem Public Library
821 E. State Street
Salem, OH 44460
(216) 332-0042
Contact: Mrs. Stevens

Lepper Library
303 E. Lincoln Way
Lisbon, OH
(216) 424-3117

Public Meetings

Salem City Council Chambers
Salem City Hall
231 S. Broadway
Salem, OH 44460

APPENDIX C

ACRONYMS AND GLOSSARY OF TERMS

CD - Consent Decree

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980

CRP - Community Relations Plan

FS - Feasibility Study

HRS - Hazard Ranking System

NPL - National Priorities List

ppm/ppb - parts per million/parts per billion

PRP - Potentially Responsible Party

QA/QC - Quality Assurance/Quality Control

ROD - Record of Decision

RA - Remedial Action

RD - Remedial Design

RI - Remedial Investigation

RPM - Remedial Project Manager

SARA - Superfund Amendments and Reauthorization Act of 1986

VOC - Volatile Organic Compound

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Glossary

Aquifer - A layer of rock or soil below the ground surface that can supply usable quantities of ground water to wells and springs. Aquifers can be a source of water for drinking and other uses.

Community Relations Plan (CRP) - The CRP outlines specific community relations activities that occur during the remedial response at a site. The CRP outlines how the U.S. EPA will keep the public informed of work at the site and the ways in which citizens can review and comment on decisions that may affect the final actions at the site. This document is available in the U.S. EPA information repositories.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The Act created a special tax that goes into a trust fund, commonly known as Superfund, to investigate and clean up hazardous waste sites. Under the program U.S. EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work.

- Take legal action to force parties responsible for site contamination to clean up the site or pay back the federal government for the cost of the cleanup.

Consent Decree (CD) - A legal document, approved and issued by a judge, that formalizes an agreement reached between U.S. EPA and potentially responsible parties (PRPs) where PRPs will perform all or part of a Superfund site cleanup. The consent decree describes actions that PRPs are required to perform and is subject to a public comment period.

Contaminant Plume - A column of contamination with measurable horizontal and vertical dimensions that is suspended in and moves with ground water.

The Hazard Ranking System (HRS) - Used by U.S. EPA to decide whether a site should be placed on the National Priorities List (NPL). The score a site receives from the HRS compares the relative hazards for different sites, taking into account the impact the site has on ground water, surface water, and air, as well as the number of people potentially affected by the contamination. Sites receiving a score of 28.5 or greater are proposed for the NPL.

Heavy Metals - A group of metals including lead, chromium, cadmium, and cobalt. These can be highly toxic at relative low concentrations.

Leachate - A common term when talking about landfills. Leachate is not a specific chemical itself; it is a liquid that has percolated through wastes and contains components of these wastes. For instance, water may mix with leaking wastes inside a landfill, become contaminated, and then seep into the water table, polluting drinking water wells.

Monitoring Wells - Special wells drilled at specific locations on or off a hazardous waste site where ground water can be sampled at selected depths. The samples are then studied to determine such things as the direction of ground water flow and the types and amounts of contaminants present.

National Priorities List (NPL) - U.S. EPA's list of the top priority hazardous waste sites in the country that are eligible for federal cleanup money under Superfund.

Public Comment Period - A time period during which the public can review and comment on various documents and U.S. EPA actions. For example, a comment period is provided when U.S. EPA proposes to add sites to the National Priorities List. Also, a minimum 30-day comment period is held to allow citizens to review and comment on a draft feasibility study.

Remedial Action (RA) - Response actions that stop or substantially reduce a release or threat of a release of hazardous substances that are serious but not an immediate threat to public health.

Remedial Alternative - A method or combination of methods designed to protect public health, welfare and the environment over the long term, from releases of hazardous substances at a Superfund site. Remedial alternatives are usually projects or a combination of technologies that contain, remove, or destroy most of the contaminants in the air, water, soil and/or ground water at a Superfund site.

Remedial Design (RD) - A phase of the remedial action that follows the remedial investigation/feasibility study and includes the development of engineering drawings and specifications for a site cleanup.

Remedial Investigation/Feasibility Study (RI/FS) - A Remedial Investigation (RI) examines the nature and extent of contamination problems at a site. The Feasibility Study (FS) evaluates different remedial alternatives for site cleanup and recommends the most cost effective alternative.

Sludge - A generic term that describes a thickened solid/liquid waste by-product of an industrial or recycling process.

Sludge Lagoon - A pond used to dry or store semi-solid waste products (sludge).

Superfund - The commonly used term that describes the federal legislation authorizing U.S. EPA to investigate and respond to the release or threatened release of hazardous substances into the environment. Also known as CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act). In 1986, Superfund was reauthorized as SARA - Superfund Amendments and Reauthorization Act.

Superfund Amendments and Reauthorization Act (SARA) - Modifications to CERCLA enacted on October 17, 1986.

Volatile Organic Compound (VOC) - Carbon-containing compound that evaporates (volatizes) readily at room temperature.