# FIVE YEAR REVIEW

# PESSES CHEMICAL COMPANY
# SUPERFUND SITE

# FORT WORTH, TEXAS


**JULY 2005**

## Determination

I have determined that the selected remedy for the Pesses Chemical Company Superfund Site is protective of human health and the environment and will remain so provided that the waste containment cap is maintained and access restrictions are enforced.

John R. Hepola, for

**Samuel Coleman, P.E.**
**Director**
**Superfund Division**
**U.S. Environmental Protection Agency Region 6**

7/21/05
**Date**

**CONCURRENCES**
**FIVE-YEAR REVIEW**

**Pesses Chemical Company Superfund Site**
**Fort Worth, Tarrant County, Texas**

By: _____ Date: 7/19/05
Gary Miller
Remedial Project Manager

By: _____ Date: July 19, 05
Gustavo T. Chavarria, Chief
AR/TX Project Management Section

By: _____ Date: 7/19/05
John Heppla, Chief
AR/TX Branch

for By: _____ Date: 07/21/05
James L. Turner, Senior Attorney
Superfund Branch, Office of Regional Counsel

By: _____ Date: 07/21/05
Mark Peycke, Chief
Superfund Branch, Office of Regional Counsel

By: _____ Date: 7-20-05
June Buzzell, Writer/Editor
Superfund Division

By: _____ Date: 7-21-05
Pamela Phillips, Deputy Director
Superfund Division

# PESSES CHEMICAL COMPANY
# SUPERFUND SITE FIVE YEAR REVIEW
# JULY, 2005

## LIST OF ACRONYMS

| | |
|---|---|
| ARAR | Applicable or Relevant and Appropriate Requirement |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | Code of Federal Regulations |
| ESD | Explanation of Significant Differences |
| EPA | United States Environmental Protection Agency |
| FS | Feasibility Study |
| HDPE | High Density Polyethylene |
| ICP | Institutional Controls Plan |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| NPL | National Priorities List |
| O&M | Operation and Maintenance |
| OSWER | Office of Solid Waste and Emergency Response |
| PRP | Potentially Responsible Party |
| RAO | Remedial Action Objective |
| RCRA | Resource Conservation and Recovery Act |
| RD | Remedial Design |
| RI | Remedial Investigation |
| ROD | Record of Decision |
| TBC | To Be Considered Requirements |
| TCEQ | Texas Commission on Environmental Quality |
| TNRCC | Texas Natural Resource and Conservation Commission |
| TWC | Texas Water Commission |

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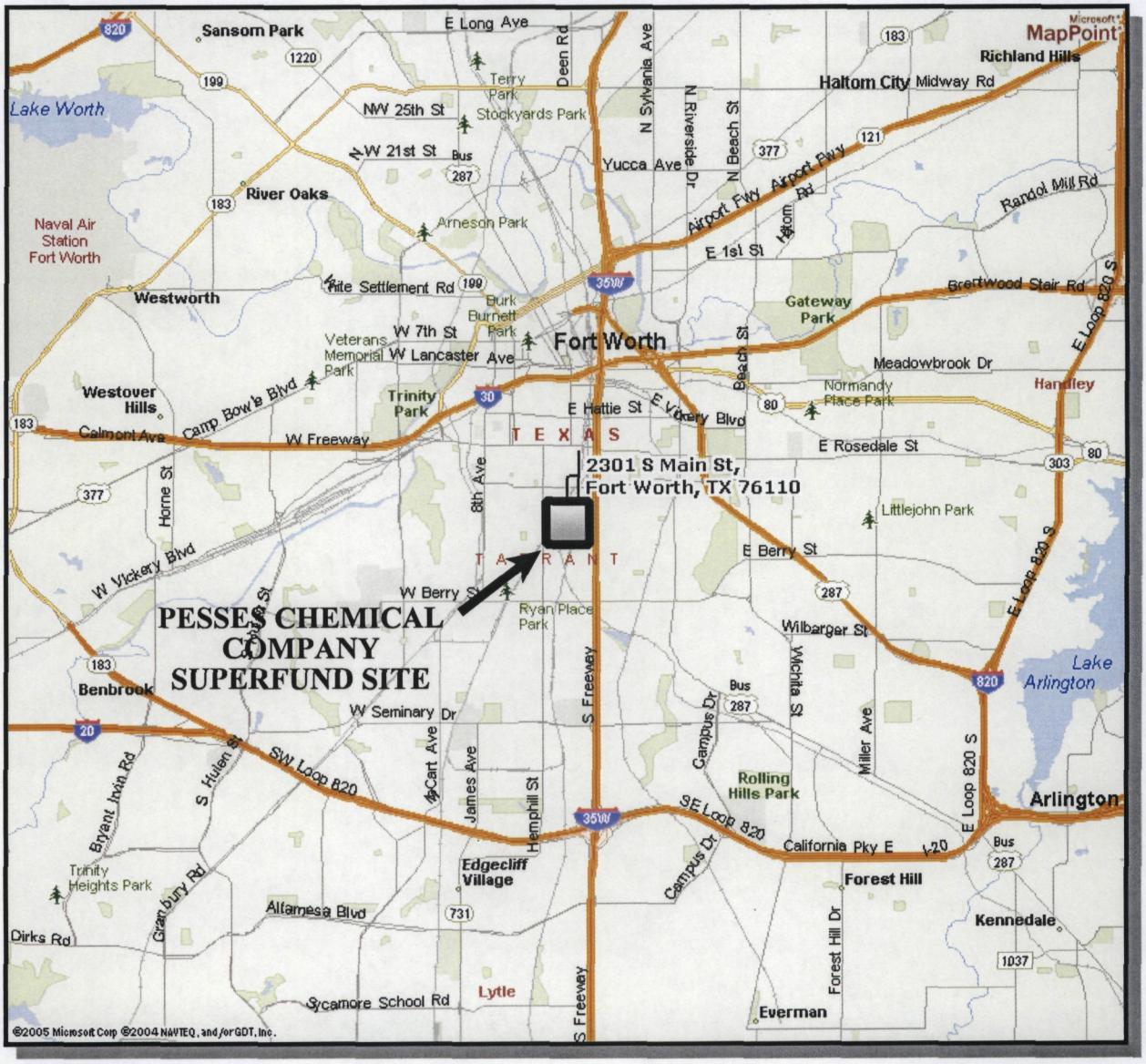
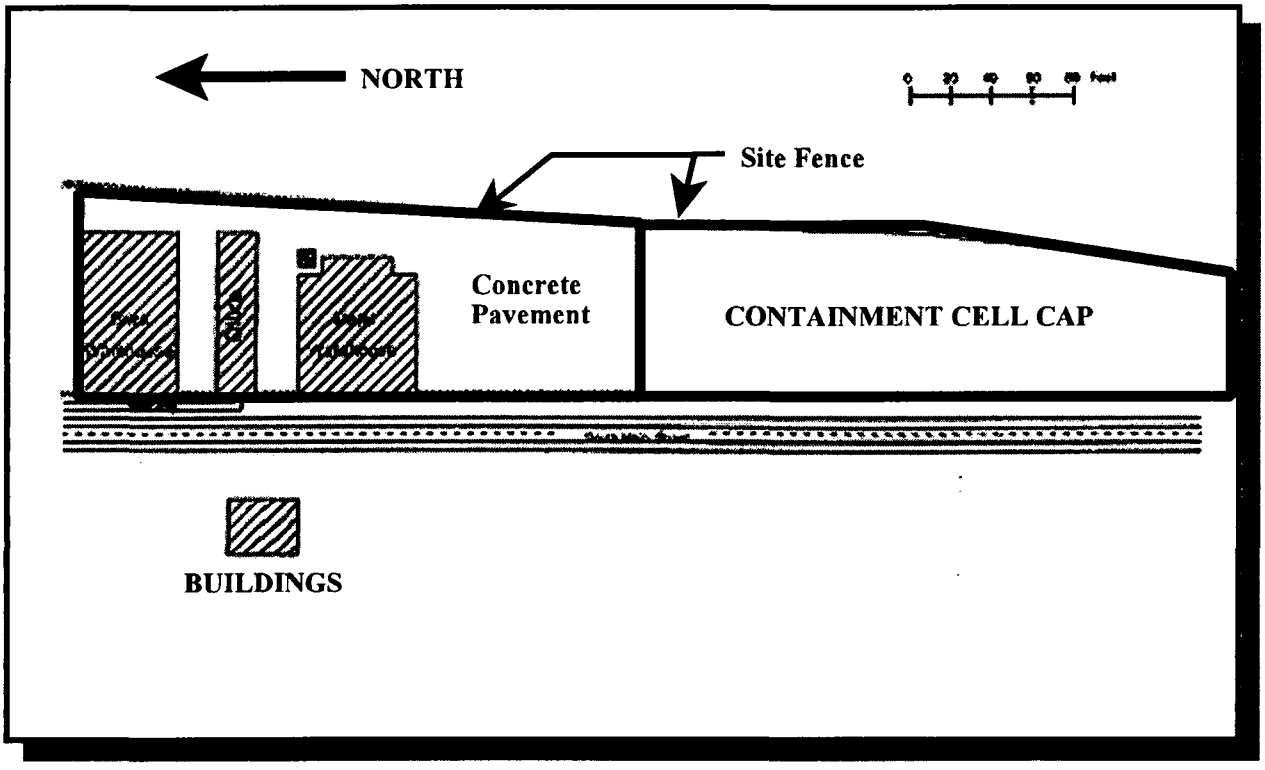
# PESSES CHEMICAL COMPANY
# FORT WORTH, TEXAS






**PESSES CHEMICAL COMPANY**
**SUPERFUND SITE**

**FORT WORTH, TEXAS**

# PESSES CHEMICAL COMPANY SUPERFUND SITE
# FIVE-YEAR REVIEW

## EXECUTIVE SUMMARY

The purpose of the five-year review is to evaluate if the selected remedy for the Pesses Chemical Company Site is protective of human health and the environment.

The completion of the current five-year review confirms that the Pesses Site remains protective of human health and the environment. The remedy selected for the Pesses Site in the1988 Record of Decision (ROD), as modified by a 1990 Explanation of Non-Significant Change, has been implemented. This is the second five-year review for the site. The first five-year review was completed and signed on July 21, 2000.

The remedy for the Pesses Site in Fort Worth, Tarrant County, Texas included excavation of contaminated soil, stabilization with cement kiln dust, and placement in a waste containment cell that is capped with concrete and a synthetic membrane. The excavated areas were backfilling with clean soil. Construction activities were completed in 1992 and the Pesses Site was deleted from the National Priorities List (NPL) in 1995.

The assessment of this five-year review found that the remedy was constructed in accordance with the requirements of the ROD and the Explanation of Non-Significant Change, which changed the cap material from clay to concrete. The remedy is functioning as designed. The threats to human health and the environment have been addressed and the remedy remains protective. There are no current exposure pathways. The remedial actions have achieved the remedial action objectives (RAOs) for metal concentration in soils.

Long-term protectiveness of the containment remedy will continue to be verified by semi-annual site inspections. Institutional controls will be implemented for the site.

# Five-Year Review Summary Form

## SITE IDENTIFICATION

**Site name** *(from WasteLAN)*: Pesses Chemical Company

**EPA ID** *(from WasteLAN)*: TXD980699656

**Region:** 6 | **State:** TX | **City/County:** Ft. Worth Tarrant County

## SITE STATUS

**NPL status:** ☐ Final ☒ Deleted ☐ Other (specify) _____

**Remediation status** (choose all that apply): ☐ Under Construction ☐ Operating ☒ Complete

**Multiple OUs?*** ☐ YES ☒ NO | **Construction completion date:** 9 / 30 / 1993

**Has site been put into reuse?** ☐ YES ☒ NO

## REVIEW STATUS

**Lead agency:** ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency _____

**Author name:** Gary Miller

**Author title:** Remedial Project Manager | **Author affiliation:** U.S. EPA

**Review period:**** 4 / 21 / 2005 to 7 / 21 / 2005

**Date(s) of site inspection:** 7 / 6 / 2005

**Type of review:**
☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only
☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead
☐ Regional Discretion

**Review number:** ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify) _____

**Triggering action:**
☐ Actual RA Onsite Construction at OU #_____ ☐ Actual RA Start at OU#_____
☐ Construction Completion ☒ Previous Five-Year Review Report
☐ Other (specify) _____

**Triggering action date** *(from WasteLAN)*: 7 / 21 / 2000

**Due date** *(five years after triggering action date)*: 7 / 21 / 2005

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

# PESSES CHEMICAL COMPANY SUPERFUND SITE
# FIVE-YEAR REVIEW

## I. INTRODUCTION

### 1. Authority

The U.S. Environmental Protection Agency (EPA) has conducted the second five-year review of the remedial actions implemented at the Pesses Chemical Company Superfund Site in Fort Worth, Tarrant County, Texas. This report documents the results of the review conducted in 2005. The purpose of a five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of a review are documented in the five-year review report. In addition, the five-year review report identifies deficiencies found during the review and presents recommendations to address them. This review is required by statute. EPA must implement five-year reviews consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA § 121(c), as amended, states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented.*

The NCP Part 300.430(f)(4)(ii) of the Code of Federal Regulations (CFR) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

This is the second five-year review for the Pesses Site. The triggering action for this review is the completion of the first five-year review, which was issued on July 21, 2000. Due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unrestricted use and unlimited exposure, another five-year review is required. This review will become part of the site file at Region 6 EPA offices in Dallas, Texas, and the Texas Commission on Environmental Quality (TCEQ) offices in Fort Worth, Texas.

### 2. Site Physical Characteristics and Land Use

The Pesses Chemical Company Superfund Site is located at 2301 South Main Street in Fort Worth in Tarrant County, Texas. The site is triangular in shape and approximately 4.2 acres

in size about two miles south of downtown Fort Worth and one-half mile west of Interstate 35W. An office building and brick warehouse within the fenced portion of the site are currently unoccupied. The former operations area consists of a metal warehouse that originally contained various pieces of equipment, a baghouse, two underground sumps, and a storage yard with a concrete pad. The metal warehouse currently only contains trash, debris, and discarded computer and other electrical equipment. The Pesses Site is bordered on the north by the Cenikor Drug Rehabilitation Foundation, on the east and much of the south by an active railway switching yard, and on the west by South Main Street. The site is situated in a light industrial and commercial area. Morningside Drive borders the southern tip of the site. Residential districts are located approximately one half mile to the northeast and three-fourths mile southwest of the site.

The site surface is fairly flat, although the land does slope slightly in certain areas. The adjacent railroad tracks are elevated above the site to form a drainage ditch area along the east boundary of the site. The area north of the Pesses warehouse generally drains east to this ditch and then northward toward a storm sewer located on the east site of the Cenikor property. Drainage south of the Pesses warehouse is toward storm sewers located along South Main Street. The Pesses Site is situated within the drainage basin of Sycamore Creek, which is a tributary to the West Fork of the Trinity River. Sycamore Creek has its headwaters in rural areas southwest of downtown and flows northeasterly via an open channel through urbanized areas to the south and east of downtown Ft. Worth. The creek is approximately 1.1 miles southeast of the site. Pesses is not located in the 100-year flood plain of Sycamore Creek-Trinity River.

## II. SITE CHRONOLOGY

**TABLE 1**
**Chronology of Site Events**

| EVENT | DATE |
|---|---|
| Operation of the Pesses Chemical Co. Facility | 1978 to January 1981 |
| Pesses Parent Company Filed for Bankruptcy | January 1981 |
| EPA Performed Removal Action | April 1983 |
| South Field Used as a Storage Facility by a Tenant Through the Bankruptcy Court | June 1985 to November 1985 |
| Pesses Added to the National Priorities List | June 10, 1986 |
| Remedial Investigation Performed | December1987 to October 1988 |

| | |
|---|---|
| Installed Fence and Placed Asphalt Cap Over Soil in the Northern Part of Site | August 1988 |
| Remedial Investigation Report Completed | October 1988 |
| Feasability Study Report Completed | October 1988 |
| Record of Decision Issued for Site | December 22, 1988 |
| Explanation of Non-Significant Change in the Planned Remedial Action | June 8, 1990 |
| Remedial Action | February 3 to September 15, 1992 |
| Construction Final Inspection conducted. | September 15, 1992 |
| Final Close Out Report Issued | September 30, 1993 |
| Site Deleted From NPL | September 28, 1995 |
| Consent Decree for Response Costs Payment | July 12, 1996 |
| First Five Year Review | July 21, 2000 |

## III. BACKGROUND

### 1. History of Contamination

The Pesses Company of Solon, Ohio [METCOA] purchased the property in Fort Worth, Texas, in December 1978. Operations to reclaim cadmium and nickel from dry-cell batteries and metal sludges began in mid-June of 1979. The facility included four furnaces fired by natural gas. The furnaces were heated to separate cadmium from the mixture in the form of cadmium oxide gas. The cadmium oxide gas was condensed into a liquid in condensers and then poured into molds. The molds were transferred off-site to Pesses's ball furnace operation where they were re-melted and re-cast into 1.25 pound cadmium balls for shipment to various plating operations. Furnace emissions were composed of numerous metal oxides and other particulates. These furnace emissions were conveyed to a cyclone separator and then to a baghouse filter before discharging to the atmosphere. Nickel and iron scrap and slag were collected in 55 gallon drums for shipment to the Pesses Company reclamation plant in Pennsylvania.

Complaints from nearby residents led to an inspection of the site by the Fort Worth Air Pollution Control office in mid-1979. This inspection and others revealed numerous problems with the plant operations. It was also determined that the Pesses Company did not obtain the construction or operation permits required by the State prior to operations. Pesses ceased

operations to obtain the proper permits. Once operations were again underway, in February 1980, cadmium emissions were measured as high as 2900 percent of the 0.01 pound per hour permit limits. In January 1981, the parent company in Ohio claimed bankruptcy and operations at the Fort Worth plant were discontinued.

In March 1983, a grass fire at the site resulted in the release of toxic cadmium oxide fumes, which hospitalized a firefighter. At that time approximately 1500 deteriorating drums remained onsite with heavy metal sludges, powder, and empty battery cases. Since the Pesses Company lacked the funds necessary for site cleanup, the Environmental Protection Agency Emergency Response Team removed about 3,400 cubic yards of soil, drummed material, and debris from the site in April 1983. A clay cap was placed in the south storage yard to prevent exposure to contaminated soils remaining on-site.

In April 1984, particulate air sampling revealed .014 - .048 parts per billion cadmium at the site boundary.

From June 1985 through November 1985, the south storage yard was occupied by a tenant through the bankruptcy court. The tenant had placed several trailers on the cap and truck grooves on the cap indicated that the clay layer had been damaged. The EPA Technical Assistance Team repaired damage to the cap and re-secured the site in November 1985.

The Pesses Site was proposed for inclusion on the CERCLA National Priorities List (NPL) on October 15, 1984, (49 Fed. Reg. 40320) with a score of 28.86, due mainly to the potential for migration of heavy metals via airborne dust and surface water runoff from the site. The site was placed on the NPL on June 10,1986, (51 Fed. Reg. 21054).

The EPA designated the Texas Water Commission (TWC), predecessor to the TCEQ, as the lead agency for remedial activities for the site. The Remedial Investigation (RI) was initiated in November 1987 and completed February 1988. The RI found that the metal warehouse and baghouse contained grey, powdery dust materials. It was estimated that 95% of the warehouse building floor space was covered with less than 1/8 inch of dust and 5% was covered by an inch of dust. The dust samples showed extremely high levels of cadmium (4% to 45%) and relatively high levels of nickel (0.7% to 2 . 3 % ).

Soil samples collected during the RI were obtained from within the Pesses Site and in several adjacent off-site areas. South of the metal warehouse where the clay cap was located, soil samples contained cadmium levels as high as 2,400 mg/kg and nickel as high as 4,800 mg/kg. Soils on-site contained elevated metal concentrations to an average depth of one foot. A limited area of contamination extended to a depth of ten feet.

Two sumps located in the south storage yard contained 1,914 gallons of liquid and 16.6 cubic yards of sludge. The liquids contained less than one mg/1 of metals. The sludges contained 750 mg/kg of cadmium and 1,100 mg/kg of nickel.

No organic contaminants were found at concentrations which posed health or environmental impacts, and no asbestos was detected.

During the RI, the northern portion of the site was leased out by the bankruptcy trustee. The tenant had no access to the southern portion of the site. Sampling results of the RI revealed high levels of cadmium and lead in soils on the northern portion of the site between the north brick warehouse and office building. Since this area was used frequently by heavy machinery, the tenant agreed to place a 5-inch asphalt cap and a 6-foot chain link fence across this area to reduce potential health risk to his employees. The action was overseen by EPA personnel in August 1988. The tenant is no longer on-site. The RI also determined that limited off-site areas of shallow soils contained cadmium as a result of cadmium oxide emissions during active site operations, drainage from the site to the Cenikor Foundation, and tracking from the south storage yard in 1985 when the clay cap was disturbed by active use of the area with heavy machinery. Soil samples collected in the neighborhood east of the Pesses Site did not contain any metals concentrations above background levels.

Ground water occurs at a depth of 380 feet below the ground surface. Because the ground water is below low permeability clay, shale and shaley limestone, and the maximum depth of site contaminants is less than a depth of 13 feet, the EPA has determined that the ground water was not and will not, in the future, be affected by contamination at the site.

## 2. Initial Response

As mentioned previously, during the time period between April 17 and April 29, 1983, an EPA removal action was conducted and the site was secured. The removal action consisted of removal of 3,392 cubic yards of contaminated soil, metal sludge, drummed material, and debris from the site. A two to six inch interim clay cover was installed over the process area. From two to six inches of topsoil were removed from inside the fenced area. Also, one inch of topsoil was removed from the south field where piles of slag were found and the surface soils along the roadside, railroad tracks and behind the warehouse were scraped. The wastes were shipped to Chemical Waste Management in Port Arthur, Texas.

## 3. Basis for Taking Action

Although the imminent health threat had been alleviated by the Emergency Removal Action in 1983, soils remained with high metal concentrations. The main contaminants of

concern at the Pesses Site are cadmium and nickel. The building and miscellaneous equipment were left unaddressed and some drums of debris remained on-site. The RI determined that the residual contamination of cadmium and nickel present in the soils (to a depth of two to three feet over much of the site), in the metal warehouse, and in process equipment posed health and environmental threats requiring remediation.

Although none of the contaminants of concern are cancer-causing from direct contact or ingestion, adverse health effects could still occur from the levels of metals present on-site if remediation actions had not been taken. For instance, an individual who contacted the metal contaminants present at the site, and after continued exposure, might develop kidney or nervous system problems. Further, cadmium and nickel are carcinogens via inhalation. In other words, besides incidentally ingesting contaminants through hand to mouth interactions at an un-remediated site, an individual might stir up soils or waste and inhale metal particles.

Prior to remediation, an individual who trespassed on-site had a two-in-one-thousand chance of developing cancer over his expected 70 year lifetime due to exposure to the maximum concentrations of both cadmium and nickel identified on-site. However, if an individual were to work on the site and be exposed to contaminants for longer and more frequent periods of exposure, he might have a two-in-one-hundred chance of developing cancer.

## IV. REMEDIAL ACTIONS

### 1. Remedial Action Objectives

EPA established Remedial Action Objectives (RAO's) for the site to be 15 mg/kg for cadmium and 100 mg/kg for nickel. These RAOS were determined from the worst case exposure scenario provided in the baseline risk assessment and from comparison with background sample values of metals in the vicinity of the site. The cadmium and nickel concentrations ensure that a carcinogenic risk from the site will not exceed a one in one million risk. Since areas which contain elevated cadmium and nickel concentrations correspond with areas of elevated lead and copper, lead and copper concentrations detected on-site will not present a health or environmental impact once cadmium and nickel contaminated soils are addressed.

### 2. Remedy Selection

The EPA Regional Administrator signed the ROD for remedial action for the site on December 22, 1988, selecting in-situ stabilization of the contaminated soils and site contaminants, and capping as the remedy. The EPA selected this remedy because it removed the principal threat posed by the site conditions by eliminating the possibility of human exposure with the metal contaminants of concern and by preventing the spread of contaminants.

The soils would be treated in place to immobilize the heavy metal particulates. Wastes and off-site soils would be consolidated on-site prior to treatment and included in the process. Soils deeper than two feet in depth which are above the target action level will have to be excavated and included in the treatment process. A concrete cap would be placed within the fenced area around the metal warehouse and office building, and a clay cap would be placed in the south field area. The concrete cap is included for its durability and reliability since continued light industrial use of the area around the buildings was anticipated. The clay cap would be constructed in accordance with minimum technology requirements under the Resource Conservation and Recovery Act (RCRA).

A large rototiller would be used to inject and mix a stabilizing agent into the contaminated soils. Water would be used to compact and set the soils into a hardened mass in place. Treatability studies were performed, which show adequate results for both cement and asphalt stabilization of the soil at the Pesses Site.

The remedial action also included cleaning the building and leaving it in place. Drums and other contaminated debris, which cannot be included in the main soil remedy, will be disposed off-site. Equipment that cannot be adequately cleaned and left in place may also be disposed off-site. Finally, the sumps will be cleaned and sealed in place.

A non-significant change in the planned remedial action was made on June 8, 1990. As described above, the original remedy specified in the ROD included a clay cap in the south field. However, during the Remedial Design, it was discovered that the south field was too narrow to construct the cap over the waste material while maintaining a cap surface slope necessary for proper drainage and to minimize erosion. As a result, instead of placing a clay cap in this area, the concrete cap specified for the operating area would be extended to include the south field. This design change had no adverse impact on either the scope or performance of the selected remedial alternative, only a negligible increase in overall site remedial cost, and was consistent with RCRA Subtitle C site Applicable or Relevant and Appropriate Requirements (ARARs). Therefore, the design change was deemed to be "insignificant" from a regulatory procedural standpoint and no modification was deemed necessary for the ROD.

### 3. Remedy Implementation

The former Pesses Site operations area consisted of a metal warehouse with various pieces of equipment, several smelters, a baghouse, two underground sumps, and a south storage yard with a concrete pad and two sumps. The remedial action contractor removed the refractory inside the smelters and also the two sumps in the ground. These materials, and the dust and dust bags from the baghouse with the contaminated soil were consolidated in the south field. The

metal warehouse building, drums, and metal process equipment were decontaminated by high pressure water washing.

Mobilization to begin the remedial action began on February 3, 1992. Site security was provided by maintaining a temporary fence around all site activities and providing a 24-hour guard service. A silt/sediment fence was installed on the down-gradient side of the site as part of the environmental controls during remediation activities. Air sampling devices were set up at several points around the site when remediation activities began. Air sampling ran continuously while contaminated soil was being disturbed.

The metal warehouse was a steel frame building with aluminum siding. The entire interior of this building was decontaminated with a high pressure spray washer. This washer was placed on a scissor lift so that the upper areas of the building could be reached. The baghouse dust collector was sand blasted to clean rusted areas, and the interior of the cyclone baghouse and dust collectors were also pressure washed as a part of the building decontamination. Confirmatory wipe samples were taken until the building was sufficiently free of cadmium dust. Samples of the final rinse water were analyzed to insure that any remaining residue did not represent a health hazard.

There were six on-site soil contamination areas that were above the RAOs. The planned excavation depth ranged between 2 ½ feet and 8 feet in these areas. The soil was excavated using a trackhoe and transferred to the southern part of the site for stabilization. When the specified depth for each area was reached, composite confirmation samples were collected along the bottom and sides of the excavation. If the samples exceeded the RAOs, then additional excavation would continue until new confirmation samples were below the RAOs. The excavation was then backfilled with clean fill imported from off-site sources. A total of 10,553 cubic yards of on-site contaminated soil was excavated and stabilized.

Areas of soil contaminated above the RAOs soil outside of the Pesses property lines were removed, hauled on-site, and stabilized for placement in the south field under the cap system. There were three areas on the west side of South Main Street and three areas immediately adjacent to the site on the east side of South Main Street. At each location, the soil was excavated using a backhoe or by workers with shovels to a depth of one foot below grade. Each of the excavation areas was backfilled with clean fill and those areas that were private property were sodded. A total of 1,806 cubic yards of off-site contaminated soil was removed.

All soil with metals levels greater than the RAOs was stabilized with cement kiln dust to prevent leaching of the metals from the soil. The stabilized soil mixture contained 10% kiln dust and 90% contaminated soil. The soil was first spread out and rock and rubble were removed by hand labor. Stabilization was performed by spreading the cement kiln dust on top of the

contaminated soil and using a mechanical soil mixer capable of mixing up to an 18 inch layer of soil in one pass. A truck was then used to distribute water for hydration of the cement. Twelve inches of soil were stabilized in each lift. Equilibrium Partitioning Toxicity Tests verified that the site contaminants did not leach out of the stabilized soil.

After successful stabilization of the contaminated soil and placement in the south field, a layer of clean fill was placed over the waste material to prevent sharp objects from puncturing the liner and to create the final slope of the top of the cap. A textured high density polyethylene (HDPE) liner with a thickness of 80-mil was then installed over the stabilized waste and soil in the south field. All liner seams were sealed and tested in accordance with the manufacturer's specifications. Then the eight-inch thick, double reinforced steel concrete cap was placed over the HDPE liner. The surface of the concrete was treated with a water proofing treatment. Expansion joints, consisting of one-inch thick closed cell neoprene foam topped with a joint sealer, were placed at the crest of the cap and at every 80 feet perpendicular to the crest.

The rest of the site outside of the capped south field was also paved with eight inch thick double reinforced concrete, but without the underlaying HDPE liner. Warning signs were placed around the stabilized and capped waste area. A six foot high chain link fence and one gate with a padlock was installed around the stabilized and capped area. Additionally, the remainder of the site was fenced with a six foot high chain link fence and two gates with padlocks. The fences were topped with three strands of barbed wire that extended the fence height to seven feet.

Other than the material required for laboratory analysis, all contaminated material remained on the site and is contained within the capped and fenced area. To reduce the quantity of buried material and to recycle steel, the scrap steel was decontaminated with high pressure hot water, removed from the site by Texas Industrial Scrap Iron & Metal Company and by Hutchinson Commercial Metal Company, and sent to their steel recycling facilities. The potentially contaminated wash water and decontamination water were used in the contaminated soil compaction and stabilization activities. Daily industrial hygiene air monitoring samples were collected and analyzed for site contaminants and particulates by EPTECH Environmental Technologies during the remedial activities. No contaminant levels specified in the ROD or ARARs were exceeded.

On September 15, 1992, the Construction Final Inspection was conducted. The inspection team determined that the remedial action had been completed successfully. In November 1992, the Final Remedial Action Report detailed the remedial activities and documented the successful completion of all construction activities. On September 30, 1993, the Acting Regional Administrator signed the EPA Final Close Out Report. The Pesses Site was deleted from the NPL on September 28, 1995 (60 Fed. Reg. 50114).

### 4. System Operation and Maintenance

Success and long-term effectiveness of the remedy is dependant upon the contaminants not leaching out of the stabilized soil and upon the concrete cap and HDPE liner not failing. Therefore, the State semi-annual inspections include a site visit to determine that none of the stabilized contaminated soil has become exposed or accessible for contact by humans or animals. Finally, the site fence should be inspected and repaired as needed to restrict access to the site. Semi-annual visual inspections of the site were performed every year since the last five-year review.

## V. PROGRESS SINCE THE LAST FIVE YEAR REVIEW

This is the second five-year review for the Pesses Site. The first five-year review was completed and signed on July 21, 2000. At the conclusion of the first five-year review, it was determined that the remedy was protective of human health and the environment. Several minor recommendations were made during the first five-year review. These recommendations included continuation of the semi-annual inspections and maintenance of the fence and concrete cap by the State. The TCEQ inspection reports since the last five-year review are contained in Appendix B.

During the last five-year review, it was noticed that three fence posts supporting the chain link fence surrounding the nonhazardous area had been bent, probably by a motor vehicle. These fence posts have since been repaired.

## VI. FIVE-YEAR REVIEW PROCESS

EPA performed the five-year review with the assistance of TCEQ. The EPA Remedial Project Manager is Gary Miller. The TCEQ Project Managers are Robert Wucher and Xiaohong Wang. The five-year review was conducted in accordance with EPA's guidance document "Comprehensive Five-Year Review Guidance" (OSWER No. 9355.7-03B-P). The purpose of a five-year review is to determine whether the remedy implemented at the site is protective of human health and the environment. It is an evaluation of the implementation and performance of the selected remedy. The five-year review also documents any deficiencies identified during the review and recommends specific actions to ensure that a remedy is protective.

The five-year review for the Pesses Site consisted of a review of relevant documents (see *Appendix A*) and a five-year review site inspection. In addition, a notice regarding the forthcoming review was placed in the local newspaper on July 21, 2005 (see *Appendix B*). The report summary of the five-year site inspection, including several photographs, is included as *Appendix C*. Copies of reports documenting previous site inspections conducted since the last five-year review in July 2000 can be found in *Appendix D*. Notice of the completion of the five-

year review will be placed in the local newspaper, and the completed report will be available in the information repository in the TCEQ office in Fort Worth, Texas.

No interviews were conducted as part of this five-year review. The Potentially Responsible Parties (PRPs) for the site paid 100% of the response costs in 1996 pursuant to a Consent Decree, and are no longer involved with site maintenance. TCEQ is performing the site maintenance and inspection activities now. Since no significant problems regarding the site have been identified to the TCEQ since the completion of the last five-year review, interviews of site parties were not deemed necessary.

## VII. FIVE YEAR REVIEW FINDINGS

### 1. Site Inspection

The five-year review Pesses Site inspection was conducted on July 6, 2005. The five-year inspection evaluated the integrity of the waste containment cell cap and site fencing, and looked for any evidence of seepage or erosion. The following individuals were present:

Robert Wucher, TCEQ Project Manager
Xiaohong Wang, TCEQ project Manager
Gary Miller, EPA Remedial Project Manager

A summary of the five-year review site inspection findings is presented below. A copy of the July 6, 2005, Site Inspection Report is attached as Appendix C.

During the inspection the containment cell concrete cap and expansion joints were found to be in good condition. No separated cracks were detected in the cap. There were cracks in the concrete along the top centerline seam of the cell cap. The seam sealant requires replacement at various areas along the expansion joints. It was observed that previous concrete repairs had been made in other cap areas and along the expansion joints.

Vegetation was observed growing in several of the expansion joints in isolated areas of the cap, and along the bordering fence line. The concrete drainage channel which parallels the site on the east side of the south field cell cap had some weed growth in the joints and a small tree was located in the drop inlet at the terminus of the channel. No shrubs or trees were observed to be growing on the cap. The site fence was found in good repair, and the damaged section noted in the last five-year review was repaired and in good condition. There was no evidence of differential settlement or excessive cracks in other areas of the concrete cap. No leachate or seeps were noted. The cap was well posted with warning signs. The site was left locked and secured.

## 2. Risk Information Review

The purpose of the reviews are to confirm that the remedy as described in the ROD and remedial design remains effective at protecting human health and the environment (e.g., the remedy is operating and functioning as designed). In addition, the reviews evaluate whether original clean-up levels remain protective of human health and the environment. ARARs and To Be Considered (TBCs) requirements are key elements in fulfilling these two purposes. ARARs pertaining to remedial action activities are divided into chemical, location, and action-specific categories.

*Chemical-specific ARARs are usually health or risk-based numerical values or methodologies that, when applied to site-specific conditions, result in the establishment of numerical values. These values establish the acceptable amount or concentration of a chemical that may remain in or be discharged to the ambient environment. If more than one chemical-specific ARAR exists for a contaminant of concern, the most stringent level will be identified as an ARAR for the remedial action.*

*Location-specific ARARs are restrictions placed on the concentration of hazardous substances or the conduct of activities solely because they are in special locations. Some examples of locations that might prompt a location-specific ARAR include wetlands, sensitive ecosystems or habitats, flood plains, and areas of historical significance.*

*Action-specific ARARs are usually technology or activity-based requirements or limitations on actions taken with respect to hazardous wastes or requirements to conduct certain actions to address particular site circumstances. These requirements are triggered by the particular remedial activities that are selected to accomplish a remedy. These action-specific requirements do not in themselves determine the remedial alternative, rather, they indicate how a selected alternative must be achieved.*

The December 1988 ROD identified the following action-specific ARARs for the Pesses site remedial action:

1. Occupational Safety and Health Act (applicable).
2. Clean Air Act and National Ambient Air Quality Standards (relevant).
3. National Pollutant Discharge Elimination System Treatment Standards (relevant).
4. Hazardous Materials Transportation Act (applicable).
5. Solid Waste Disposal Act [RCRA] (applicable).
6. RCRA Clean Closure (relevant).
7. Texas Water Quality Standards, Texas Administrative Code Part 319 (relevant).
8. Texas Solid Waste Disposal Act (applicable).

Since chemical-specific and location-specific ARARs do not exist for the contamination at the Pesses Site, target soil action levels were developed as TBC requirements. One of the requirements of a five-year review is to determine if there are any new requirements that may pertain to the site. It has been determined that there are no newly promulgated requirements, or updated TBC requirements, which would render the remedy inadequate.

## VIII. TECHNICAL ASSESSMENT

### 1. Question A: Is the Remedy Functioning as Intended by the Decision Documents?

The ROD specified in-situ stabilization of the contaminated soils and capping as the remedy. The remedy relies on the integrity of the concrete cap and HDPE liner under the concrete. The EPA selected this remedy because it eliminates the principal threat posed by site conditions by eliminating human exposure to the contaminated material and preventing the spread of contaminants. All inspections to date indicate that the concrete cap has been effective in isolating waste and contaminants, and continues to protect health and the environment. The remedy is in compliance with the ROD. The security fencing around the site is intact. When all gates are locked, access to the site is reasonably prevented. Neither the concrete cap over the stabilized waste nor the fence around the capped area has significantly deteriorated. Therefore, human and animal contact with site contaminants is precluded.

### 2. Question B: Are the Exposure Assumptions, Toxicity Data, Cleanup Levels, and Remedial Action Objectives Used at the Time of the Remedy Still Valid?

There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. There have been no new exposure pathways discovered at the site. There have been no changes in the TBC Requirements for the contaminant concentrations in soils, no changes to toxicity and other factors for the contaminants, and no additions or changes in risk assessment methodologies used at the site since the ROD have occurred which would adversely affect the protectiveness of the remedy.

### 3. Question C: Has Any Other Information Come to Light That Could Call Into Question the Protectiveness of the Remedy?

No other events have affected the current protectiveness of the remedy. There is no other information that calls into question the current protectiveness of the remedy.

### 4. Technical Assessment Summary

This Five-Year Review was performed to evaluate whether the Pesses Site remains protective of human health and the environment. The remedial actions for the site were completed as directed in the ROD and the Explanation of Non-Significant Change, and show no signs of significant deterioration or failures. The stabilization and capping technologies utilized are effective at containing and preventing direct contact with contaminated materials. According to the data reviewed and the site inspection the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. All ARARs for soil and ground water contamination cited in the ROD have been met. Therefore, the Pesses remedy performance continues to be protective of human health and the environment, however, the long term protectiveness would be enhanced by adding institutional controls.

## IX. ISSUES

There are no issues that currently prevent the remedy from being protective of human health and environment.

No institutional controls were included as a part of the remedial action selected in the ROD. However, since wastes remain on-site at concentrations above health-based risk levels, institutional controls are necessary to limit activities at the site and prevent exposure to the contaminants. Institutional controls for the site should include providing a notice (i.e., deed recordation) in the real property records of the remaining residual contamination and the restricted activities.

## X. RECOMMENDATIONS AND FOLLOW-UP ACTIONS

It is necessary to maintain the integrity and effectiveness of the cap system to achieve long-term effectiveness of the remedy. Semi-annual site inspections by TCEQ should continue. In addition, TCEQ should continue to perform site maintenance activities including making repairs to the cap and site fencing as necessary to correct any defects. Repairs necessary at the current time include mending/resealing the cracked concrete at the top seam of the concrete cap, removal of weeds from the expansion joints and fence, and re-sealing the cap and drainage channel expansion joints. Finally, the small tree should be removed from the drop inlet of the drainage channel.

In addition to the above maintenance items, institutional controls should be implemented to support the long-term protectiveness of the remedy. The objective of the institutional controls is to provide notice of the remaining contamination on-site, to place sufficient restrictions to

ensure that the integrity of the cap is not compromised, to insure that no on-site construction of water wells occurs, which may increase the likelihood of exposure to remaining contaminants, and to insure that there is no interference with the operation and maintenance of the site remedy by TCEQ. The institutional controls should be placed into the deed records so that they will run with the land. Because the placement of ICs is not a part of the remedy selected in the 1988 ROD, EPA will prepare an Explanation of Significant Differences (ESD) document to add ICs to the Pesses Site remedy. TCEQ should prepare an institutional controls plan (ICP) for implementation of the controls. It is anticipated that the ICP will be implemented with the institutional controls in place by the spring of 2006.

## XI. STATEMENT OF PROTECTIVENESS

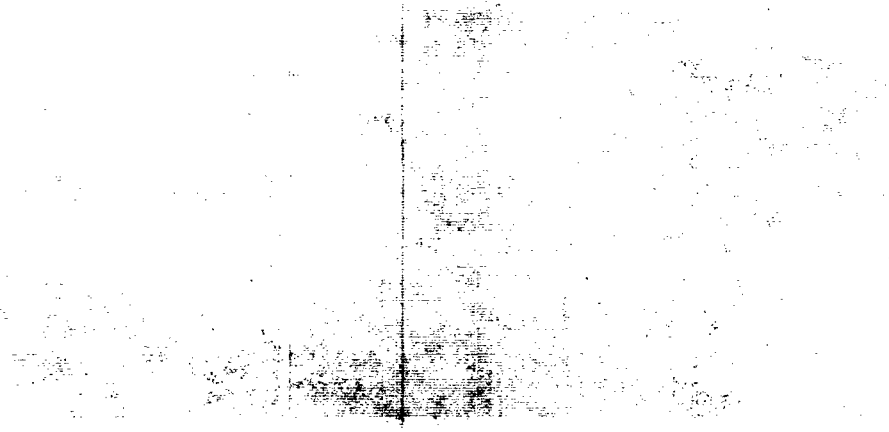
The remedy at the Pesses Site currently protects human health and the environment because the contaminated soils have been stabilized and placed in a containment cell that is covered with a HDPE liner and a concrete cap. However, in order for the remedy to be protective in the long-term, actions to implement institutional controls need to be taken to ensure long-term protectiveness.

## XII. NEXT REVIEW

This is a site that requires ongoing statutory five-year reviews. The next review will be conducted within five years of the completion of this five-year review report, or by 2010. This next review will also verify the presence and effectiveness of the institutional controls that are to be implemented subsequent to this five-year review.

# APPENDIX A

# RELEVANT DOCUMENTS



# PESSES CHEMICAL COMPANY SUPERFUND SITE
# FIVE-YEAR REVIEW

## RELEVANT DOCUMENTS


Texas Commission on Environmental Quality. June 21, 2005. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Commission on Environmental Quality. March 25, 2005. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Commission on Environmental Quality. November 4, 2004. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Commission on Environmental Quality. July 31, 2004. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Commission on Environmental Quality. January 10, 2003. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Natural Resource Conservation Commission. July 15, 2002. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Natural Resource Conservation Commission. January 22, 2002. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Natural Resource Conservation Commission. March 2, 2001. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

Texas Natural Resource Conservation Commission. August 9, 2000. "Pesses Chemical Company Biannual Operations & Maintenance Inspection."

U.S. Environmental Protection Agency. July 2000. "Five Year Review Pesses Chemical Company Superfund Site."

U.S. Department of Health and Human Services. February 16, 1994. "Site Update and Review, Pesses Chemical Company, Forth Worth, Tarrant County, Texas."

U.S. Environmental Protection Agency. September 1993. "Final Close-Out Report for Pesses Chemical Company Superfund Site."

U.S. Environmental Protection Agency. November 1992. "Pesses Superfund Site Final Remedial Action Final Report."

**PESSES CHEMICAL COMPANY SUPERFUND SITE**
**FIVE-YEAR REVIEW**

U.S. Environmental Protection Agency. June 1990. "Explanation of Non-Significant Change: Concrete Cap to Replace Clay Cap in South Field."

U.S. Environmental Protection Agency. December 1988. "Record of Decision, Pesses Chemical Site, Fort Worth, Tarrant County, Texas."

# APPENDIX B

# PUBLIC NOTICE

# PESSES CHEMICAL COMPANY SUPERFUND SITE PUBLIC NOTICE

## U.S. EPA Region 6 Begins Five-Year Review of Site Remedy

The U.S. Environmental Protection Agency Region 6 (EPA) has begun a Five-Year Review of the remedy for the Pesses Chemical Company (PCC) Superfund Site in Ft. Worth, Texas. The review will evaluate the ability of the remedy to correct contamination problems and protect public health and the environment. The former dry-cell battery reclamation plant is located at 2301 South Main Street on the southeast side of Ft. Worth, TX. Once completed, the results of the Five-Year Review will be made available to the public at the following information repository:

**Texas Commission on Environmental Quality**
**Region 4 Office**
**2309 Gravel**
**Fort Worth, Texas 76118**
**(817) 588-5800**

Information about the PCC Site also is available on the Internet at www.epa.gov/region6/superfund. For more information about the PCC Site contact Gary Miller at (214) 665-8318 or 1-800-533-3508 (toll free) or by e-mail at miller.garyg@epa.gov.

**CONFIRMED** publication in the Fort Worth Star-Telegram on Thursday, July 21, 2005
CH2M HILL/Bernard Hodes 972-980-2170

# APPENDIX C

# FIVE-YEAR REVIEW
# SITE INSPECTION REPORT

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Pesses Chemical Company Superfund Site file **Date:** July 18, 2005

**From:** Bob Wucher, P.E.
Project Manager

**Subject:** Pesses Chemical Company, 2301 South Main Street, Fort Worth
Biannual Operations and Maintenance Inspection, Completed on July 6, 2005

A site inspection of the site was conducted on July 6, 2005. Participants were Gary Miller, EPA RPM, Bob Wucher, TCEQ Superfund Cleanup Section and Xiaohong Wang of TCEQ, Region 4. The following was noted:

The computer recycling business that occupied the northside adjacent buildings is apparently out of business as no evidence of recent activity was noted.

The overall condition of the site was found to be good.

Site fencing was in good condition. Two new combination locks were placed on the external gate on South Main Street.

The concrete cap on the containment cell was in very good condition. Cap conditions include:

No separated cracks were detected in the cell cap. The few expansion cracks noted in the cap are tight, requiring no repair.

All cap joints were in good condition and no differential joint settlement or separation was noted.

Several transverse joints on the east side of the cell, near the fence separating the cap from the drainage channel, had minor weed intrusion.

One reinforcement rust 'pop-off' spot was noted.

A previous concrete repair of the crest joint was showing some separation.

The concrete drainage channel which parallels the site on the east side of the cell had some weed growth in the joints and a small tree was located in the drop inlet at the terminus (south) of the channel.

Routine maintenance required includes:

The removal of grass/weeds from joints of the cap and the drainage channel.

Removal of the tree from the drop inlet at the south end of the drainage channel.

All cap joints, drainage channel joints, the rust pop-off spot, and the separated concrete repair on the crest require resealing with asphaltic material.

All weeds intruding on the fences should be cleared.

# APPENDIX D

# PESSES SEMI-ANNUAL SITE INSPECTION REPORTS

# Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Emmanuel C. Ndame, Project Manager
Superfund Investigation Section
Remediation Division

Date: 08/09/00

DRAFT

Thru: Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team
Site Assessment and Management Section

From: James D. Thompson, Field Investigator - Region 4
8/9/00

Subject: Pesses Chemical Company - Fort Worth, Texas
SW Registration No. None; EPA Identification No. None
Biannual Operations & Maintenance (O&M) Inspection

## OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On August 8, 2000, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

## RESULTS OF INSPECTION

During the inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site) first reported damaged from a vehicle impact during the January 27, 1999 inspection were noted still needing repairs. The extent of damage remains the same. According to the manager of the nearby business, vagrants continue to enter the site under the collapsed portion of the fenceline seeking overnite refuge in the remaining on-site building.

The site was left locked and secured.

J.D.

# Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Jim Feeley, Project Manager
Superfund Investigation Section
Remediation Division

Date: March 2, 2001

Thru: for Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team
Site Assessment and Management Section

From: James D. Thompson, Project Manager - Region 4

Subject: Pesses Chemical Company - Fort Worth, Texas
SW Registration No. None; EPA Identification No. TXD 980699656
Biannual Operations & Maintenance (O&M) Inspection

## OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On February 13, 2001, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

## RESULTS OF INSPECTION

During the inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site and first reported during the January 27, 1999 inspection from a vehicle impact) were noted still needing repairs. The extent of damage remains the same (see original photos in 01/27/99 report). According to the manager of the nearby business, vagrants continue to enter the site under the collapsed portion of the fenceline seeking overnight refuge in the remaining on-site building. No other discrepancies were noted.

The site was left locked and secured.

# Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Wade Stone, Team Leader
Superfund Cleanup Section
Remediation Division

Date: January 22, 2002

Thru: WW Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team
Site Assessment and Management Section

From: JDT for James D. Thompson, Field Investigator - Region 4

Subject: Pesses Chemical Company - Fort Worth, Texas
SW Registration No. None; EPA Identification No. TXD 980699656
Biannual Operations & Maintenance (O&M) Inspection

## OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On January 7, 2002, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

## RESULTS OF INSPECTION

During the inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site and first reported during the January 27, 1999 inspection resulting from a motor vehicle impact) were noted still needing repairs. The extent of damage remains the same. Conditions of the cap/seals located on the south portion of the site were noted satisfactory. No other discrepancies were noted.

The site was left locked and secured.

# Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Wade Stone, Team Leader
Superfund Cleanup Section
Remediation Division

Date: July 15, 2002

Thru: Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team
Site Assessment and Management Section

From: James D. Thompson, Field Investigator - Region 4

Subject: Pesses Chemical Company - Fort Worth, Texas
SW Registration No. None; EPA Identification No. TXD 980699656
Biannual Operations & Maintenance (O&M) Inspection

## OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On July 11, 2002, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

## RESULTS OF INSPECTION

During the inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site and first reported during the January 27, 1999 inspection resulting from a motor vehicle impact) were noted still needing repairs. The extent of damage remains the same. Conditions of the cap/seals located on the south portion of the site were noted satisfactory. There was evidence of minor spalling at the edges of the concrete cap along the top centerline, which will be checked at the next inspection. No other discrepancies were noted.

The site was left locked and secured.

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Wade Stone, Team Leader
Superfund Cleanup Section
Remediation Division

Date: January 10, 2003

Thru: Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team

From: 1/10/03
James D. Thompson, Field Investigator - Region 4

Subject: Pesses Chemical Company - Fort Worth, Texas
SW Registration No. None; EPA Identification No. TXD 980699656
Biannual Operations & Maintenance (O&M) Inspection

## OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On January 8, 2003, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

## RESULTS OF INSPECTION

During the inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site and first reported during the January 27, 1999 inspection resulting from a motor vehicle impact) were noted still needing repairs. The owner of the adjacent business, Singer Metals, Inc., stated he would repair the fence at no expense to the TCEQ and replace the gate to the non-hazardous area that had been recently damaged.

Conditions of the north portion of the site were noted satisfactory. However, there was evidence of major spalling along the centerline edges of the concrete cap covering the hazardous material encapsulated at the site, which will require immediate repairs. Five areas were noted cracked up to 4' long and 2" wide along the top center seam. The side seams and seams between sections were noted in good condition. No other discrepancies were noted.

Trash and other debris were policed from along the fenceline and the site was left locked and secured.

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Wade Stone, Team Leader
Superfund Cleanup Section
Remediation Division

Date: July 31, 2003

Thru: Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team

From: 7/31/03
James D. Thompson, Field Investigator - Region 4

Subject: Pesses Chemical Company - Fort Worth, Texas
SW Registration No. None; EPA Identification No. TXD 980699656
Biannual Operations & Maintenance (O&M) Inspection

## OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On July 24, 2003, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

## RESULTS OF INSPECTION

During the O&M inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site and first reported during the January 27, 1999 inspection resulting from a motor vehicle impact) were noted still needing repairs. In addition, the entrance gate to the north non-hazardous area had been damaged and replaced with a make-shift gate by the current business occupying the former office area, Singer Metals. The entrance gate needs replacement and the damaged fence repaired.

Additional concerns noted during the inspection was evidence of major spalling along the top centerline seam of the concrete cap located on the south portion of the site covering the encapsulated hazardous material, which will require immediate repairs to preclude moisture from entering the encapsulated cells. Seven (7) of the ten (10) sections (each approx. 60' long) were noted cracked in multiple areas up to 4' long and 2" wide along the top seams. The side seams and seams between sections were noted still in good condition. No other discrepancies were noted. Trash and other debris were policed from along the fenceline and the site was left locked and secured.

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Wade Stone, Team Leader
Superfund Cleanup Section
Remediation Division

**Date:** March 26, 2004

**Thru:** Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team

**From:** Xiaohong Wang, Project Manager-Region 4

**Subject:** Pesses Chemical Company - Fort Worth, Texas
SW Registration No.None; EPA Identification No. TXD980699656
Biannual Operations & Maintenance (O & M) Inspection

OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On March 25, 2004, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The Purpose of the O&M inspection was to determine site conditions and identify deficiencies for corrective action in accordance with the approved O&M Plan.

RESULTS OF INSPECTION

During the O&M inspection, the 20' portion of the perimeter chain link fence and three posts located along South Main Street (adjacent to the non-hazardous area of the site and first reported during the January 27, 1999 inspection resulting from a motor vehicle impact) were repaired. Now the entrance gate and fence around the facility are in good condition. The current condition of concrete cap area is shown in Pictures 1 and 2.

The concern noted during the inspection was evidence of small cracks along the side seams. There are grasses grown out from one of the side seams. The current condition of side seams is shown in picture 3 and 4.

Based on the Mr. Thompson's letter dated July 31, 2003, there is a major crack along the top centerline seam of the concrete cap located on the south portion of the site covering the encapsulated hazardous material, which will require immediate repairs to preclude moisture from entering the encapsulated cells. Seven(7) of the ten(10) sections (each approx. 60' long) were noted cracked in multiple areas up to 4' long and 2" wide along the top seams. Because the writer can not find the key to open the gate for concrete cap area, the condition of the top centerline seam on the concrete cap was not inspected at this time.

No other discrepancies were noted. Trash and other debris were policed from along the fenceline and the site was left locked and secured.

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Bob Wucher, Project Manager
Superfund Cleanup Section
Remediation Division

**Date:** November 4, 2004

**Thru:** Wesley G. Newberry, Team Leader
Superfund Site Discovery and Assessment Team

**From:** Xiaohong Wang, Project Manager-Region 4

**Subject:** Pesses Chemical Company - Fort Worth, Texas
SW Registration No.None; EPA Identification No. TXD980699656
Biannual Operations & Maintenance (O & M) Inspection

OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On November 4, 2004, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The Purpose of the O&M inspection was to determine site conditions and identifies deficiencies for corrective action in accordance with the approved O&M Plan.

RESULTS OF INSPECTION

During the O&M inspection, the entrance gate and fence around the facility are in good condition.

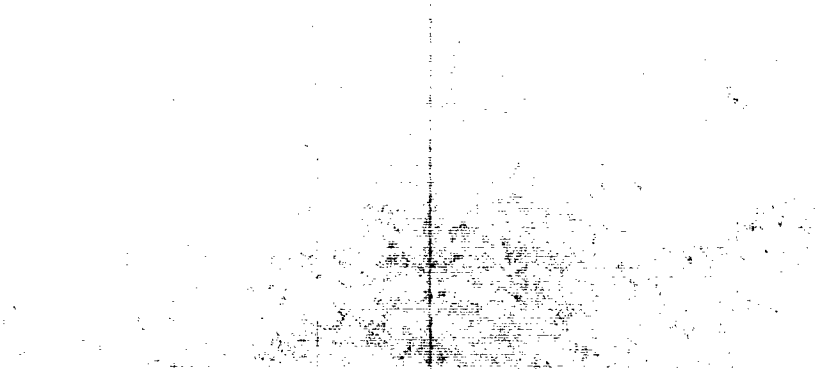
The concern noted during the inspection was evidence of small cracks located along the side seams and at the south and north part of concrete area (as shown in Picture 1- 4). The color of a small portion concrete on the top of north side concrete area looks different from the color of around concrete area as shown in picture 5. It is not sure if the small concrete area has been repaired lately.

The American Computer Salvage company (phone number is 817-926-9995) operating on the west part of the site in the last inspection seems not operate on site now as shown in Picture 6. It was found out that the above phone line has been disconnected by calling the phone number and office is almost empty by looking through the front window of the office. The writer can not get into the facility because the locks at the entrance gate can not be opened by any of the four keys mailed from central office.

Based on the Mr. Thompson's letter dated July 31, 2003, there is a major crack along the top centerline seam of the concrete cap located on the south portion of the site covering the encapsulated hazardous material, which will require immediate repairs to preclude moisture from entering the encapsulated cells. Seven(7) of the ten(10) sections (each approx. 60' long) were noted cracked in multiple areas up to 4' long and 2" wide along the top seams. Because the writer can not open the

entrance gate of the facility and the gate of concrete cap area, the condition of the top centerline seam on the concrete cap was not inspected this time.

No other discrepancies were noted. Trash and other debris were policed from along the fenceline and the site was left locked and secured.



# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Bob Wucher, Project Manager
Superfund Cleanup Section
Remediation Division

**Date:** March 25, 2005

**Thru:** Wesley G. Newberry, Team Leader
Site Investigation and Community Relations

**From:** Xiaohong Wang, Project Manager-Region 4

**Subject:** Pesses Chemical Company - Fort Worth, Texas
*SW Registration No.None; EPA Identification No. TXD980699656*
Biannual Operations & Maintenance (O & M) Inspection

OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On March 25, 2005, the writer accompanied by Mr Mike Hull who is an environmental investigator in Region 4 conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The Purpose of the O&M inspection was to determine site conditions and identifies deficiencies for corrective action in accordance with the approved O&M Plan.

RESULTS OF INSPECTION

During the O&M inspection, the two entrance gate locks were cut in order to access the site. The fence around the facility is in good condition. The gate for concrete cap area was opened by the key numbered as one mailed to the Region 4 from Superfund Cleanup Section in Austin, but the old lock was replaced by a new lock provided by Superfund Cleanup Section because old lock is in bad condition.

The concern noted during the inspection was evidence of several cracks along the top centerline seam as shown in attached pictures as well as at the east and west part of concrete cap area. The longest crack along the top centerline seam is 40ft and at some cracked area along the centerline seam, liner can be seen and width of the crack is about 2". There are also many small crack along the seam. In most of the area, seam sealant needed to be replaced. The longest crack on west side of concrete cap area is 50ft. The longest crack on east side of concrete cap area is 30ft. It is necessary to repair all the cracks existed on the concrete cap area in order to prevent moisture from entering the encapsulated cells.

No other discrepancies were noted. Trash and other debris were policed from along the fenceline and the site was left locked and secured by the locks provided by Superfund Cleanup Section.

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Bob Wucher, Project Manager
Superfund Cleanup Section
Remediation Division

**Date:** June 21, 2005

**Thru:** Wesley G. Newberry, Team Leader
Site Investigation and Community Relations

**From:** Xiaohong Wang, Project Manager-Region 4

**Subject:** Pesses Chemical Company - Fort Worth, Texas
SW Registration No.None; EPA Identification No. TXD980699656
Biannual Operations & Maintenance (O & M) Inspection

OBJECTIVES OF OPERATIONS AND MAINTENANCE INSPECTION

On June 20, 2005, the writer conducted an O&M Inspection of the Pesses Chemical Company site located at 2301 South Main Street, Fort Worth, Texas. The Purpose of the O&M inspection was to determine site conditions and identifies deficiencies for corrective action in accordance with the approved O&M Plan.

RESULTS OF INSPECTION

During the O&M inspection, the two entrance gate locks and the lock on the gate around the concrete cap area which is located inside the facility are in good condition. All three locks that were replaced in the site inspection conducted in March can be opened easily. The fence around the facility is also in good condition.

The concern noted during the inspection was evidence of several cracks along the top centerline seam as shown in attached pictures as well as at the east and west part of concrete cap area. The longest crack along the top centerline seam is 40 ft and at some cracked area along the centerline seam, liner can be seen and width of the crack is about 2". There are also many small crack along the seam. In most of the area, seam sealant needed to be replaced. The longest crack on west side of concrete cap area is 50 ft. The longest crack on east side of concrete cap area is 30 ft. It is necessary to repair all the cracks existed on the concrete cap area in order to prevent moisture from entering the encapsulated cells.

No other discrepancies were noted. Trash and other debris were policed from along the fenceline and the site was left locked and secured by the locks provided by Superfund Cleanup Section.

# APPENDIX E

# PESSES SITE PICTURES


**Metal Warehouse**
**View to southwest across South Main Street**


**View to the north across concrete paved South Storage Yard**
**From the Containment Cell Cap**

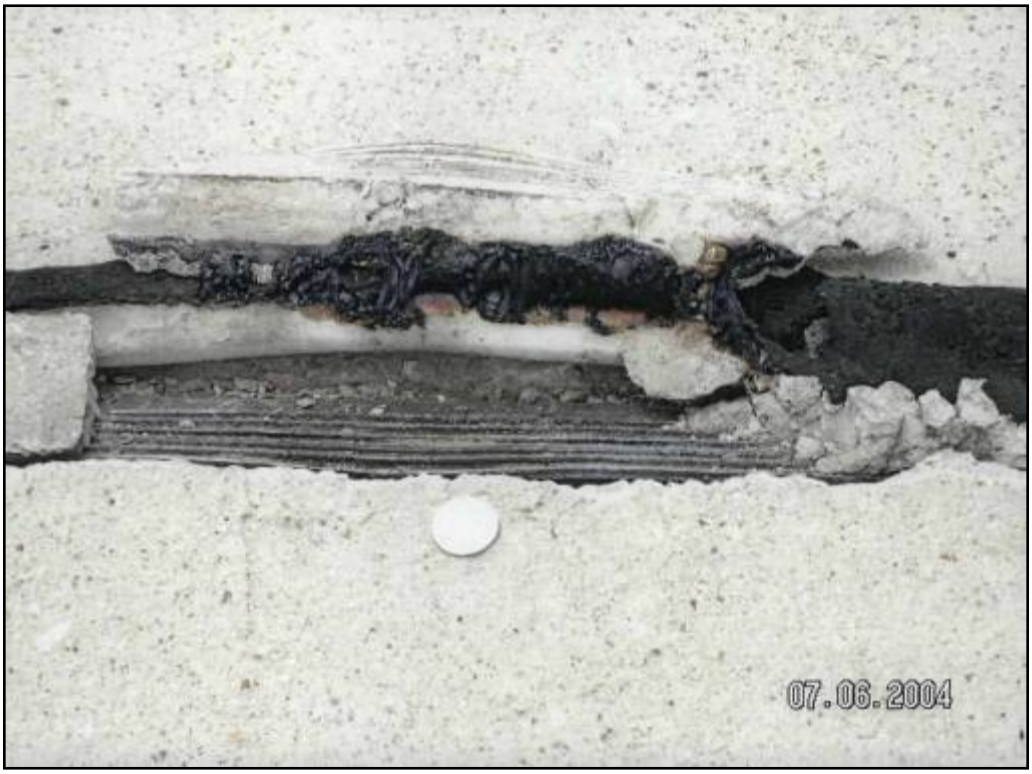

**View to Northwest from the Metal warehouse**
**Fence Repair Area**


**Containment Cell**
**View to southwest from the concrete paved South Storage Yard**


**Pesse site Sign**
**Placed on the Containment Cell Cap**


**Containment Cell Cap**
**Concrete Crack adjacent to Crest seam**
**View to the North**


**Containment Cell**
**Concrete crack adjacent to Crest Seam**




**Containment Cell**
**Cracked concrete at Crest Seam**
**Foam Expansion joint visible**


**Area south of Containment Cell**
**View to the South**


**Small tree growing in a drain box**
**Southeast corner of the Containment Cell**