# PRELIMINARY ASSESSMENT

# of

# THOMAS & BETTS CORPORATION

# (OKD070038823)


**Prepared By**

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ICF Technology Inc.
Region 6


November 30, 1993


9116030

# PRELIMINARY ASSESSMENT
# of
# THOMAS & BETTS CORPORATION (OKD070038823)

## TABLE OF CONTENTS


| Section | | Page |
|---|---|---|
| **1.0** | **INTRODUCTION** | 1 |
| **2.0** | **SITE DESCRIPTION AND OPERATIONAL HISTORY** | 1 |
| 2.1 | SITE LOCATION | 1 |
| 2.2 | OPERATIONAL HISTORY | 1 |
| 2.3 | REGULATORY STATUS/ACTIVITIES | 1 |
| 2.4 | WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION | 2 |
| 2.5 | SUMMARY OF RECONNAISSANCE INSPECTION | 2 |
| **3.0** | **PATHWAY ASSESSMENT** | 3 |
| 3.1 | GROUND WATER PATHWAY | 3 |
| | 3.1.1 Ground Water Characteristics | 3 |
| | 3.1.2 Ground Water Receptors | 3 |
| 3.2 | SURFACE WATER PATHWAY | 3 |
| | 3.2.1 Surface Water Characteristics | 3 |
| | 3.2.2 Surface Water Receptors | 4 |
| 3.3 | GROUND WATER RELEASE TO SURFACE WATER PATHWAY | 4 |
| 3.4 | SOIL EXPOSURE PATHWAY | 4 |
| | 3.4.1 Resident Threat Receptors | 4 |
| | 3.4.2 Nearby Threat Receptors | 5 |
| 3.5 | AIR PATHWAY | 5 |
| | 3.5.1 Air Pathway Characteristics | 5 |
| | 3.5.2 Air Receptors | 5 |
| **4.0** | **SUMMARY** | 5 |
| | **REFERENCES** | **R-1** |

# APPENDICES


| APPENDIX | TITLE |
| --- | --- |
| A | PHOTO DOCUMENTATION |

# FIGURES


| FIGURE | TITLE |
|---|---|
| 1 | SITE LOCATION MAP |
| 2 | SITE SKETCH |

# 1.0 INTRODUCTION

The Region 6 Alternative Remedial Contracting Strategy (ARCS) contractor was tasked by the U.S. Environmental Protection Agency (EPA) under Work Contract No. 68-W9-0025 and Work Assignment No. 29-6JZZ to conduct the Preliminary Assessment (PA) of Thomas & Betts Corporation (OKD070038823) in Tulsa, Tulsa County, Oklahoma.

The purpose of a PA is to determine whether further investigations are warranted and provide a preliminary screening of sites to facilitate EPA's assignment of site priorities. The PA investigation focuses on determining CERCLA eligibility, reviewing available file information, documenting the presence and type, or absence of uncontained or uncontrolled hazardous substances on-site and in the collection of area receptor and site characteristic information.

# 2.0 SITE DESCRIPTION AND OPERATIONAL HISTORY

This section addresses operational history, waste containment, hazardous substance identification, and regulatory status of the facility.

## 2.1 SITE LOCATION

Thomas & Betts Corporation, is located at 9932 East 58th Street South, Tulsa, Tulsa County, Oklahoma (Ref. 6). The geographic coordinates are 36°04'46.5" north latitude and 95°51'50" west longitude (Figure 1) (Ref. 4). The site occupies a 5 acre tract of land (Ref. 11) and is surrounded on all sides by light industrial facilities (Figure 1) (Figure 2). The site is boarded to the north by East 58th Street (Figure 2).

## 2.2 OPERATIONAL HISTORY

The site is an active manufacturing facility (housed in one building) that produces electrical connectors and terminals (Ref. 11). There are approximately 120 employees at this site (Ref. 11). The facility has been in operation at this location since March 3, 1977 (Ref. 11; Ref. 13). The site was a vacant parcel of land prior to the construction of this facility (Ref. 11).

## 2.3 REGULATORY STATUS/ACTIVITIES

On April 6, 1978 Thomas & Betts was granted 9 operating permits for air quality from the Oklahoma State Department of Health (Ref. 12).

Thomas & Betts filed an EPA Notification of Hazardous Waste Activity form on August 7, 1980 (Ref. 16). The facility filed its Part A Application on November 7, 1980 (Ref. 13), and was granted interim status on September 1, 1982 (Ref. 14). In April 1983, the facility decided it would be more cost effective to remove the wastes from the site in the 90-day time limit requirement for generator status then to hold it as a storage facility status (Ref. 15). On April 1, 1983 Thomas & Betts requested a change in status from Storage Facility to Generator only (Ref. 15). At that time they also submitted the paperwork to comply with the closure procedure (Ref. 15). The

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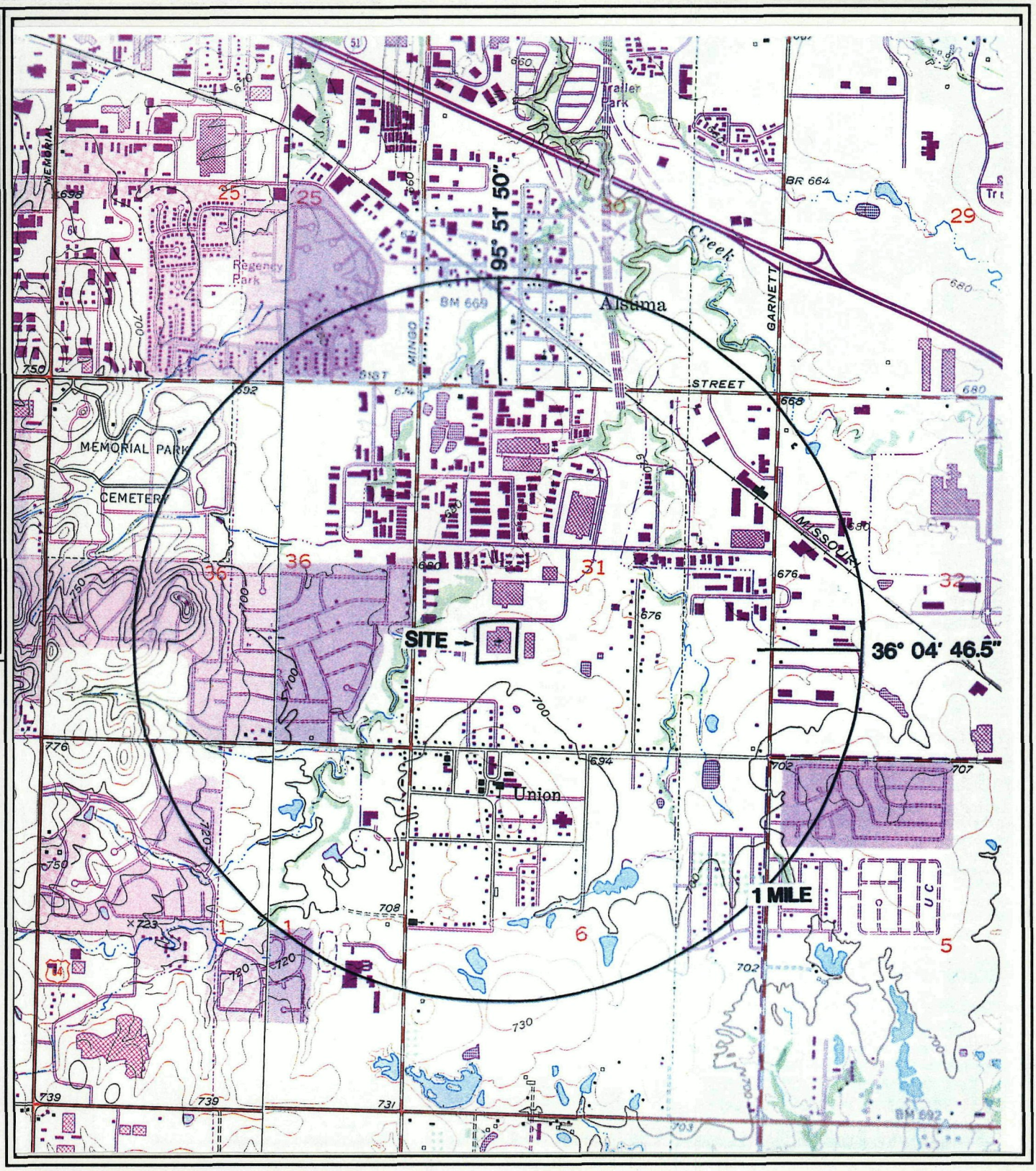



N

0 2000

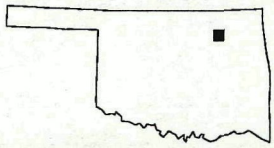
SCALE 1 : 24000

FIGURE 1

**SITE LOCATION MAP**

THOMAS & BETTS CORPORATION
TULSA, OKLAHOMA

CERCLIS #OKD070038823



QUADRANGLE LOCATION

TULSA, OK., MINGO, OK.
JENKS, OK., BROKEN ARROW, OK.

ICF TECHNOLOGY INCORPORATED

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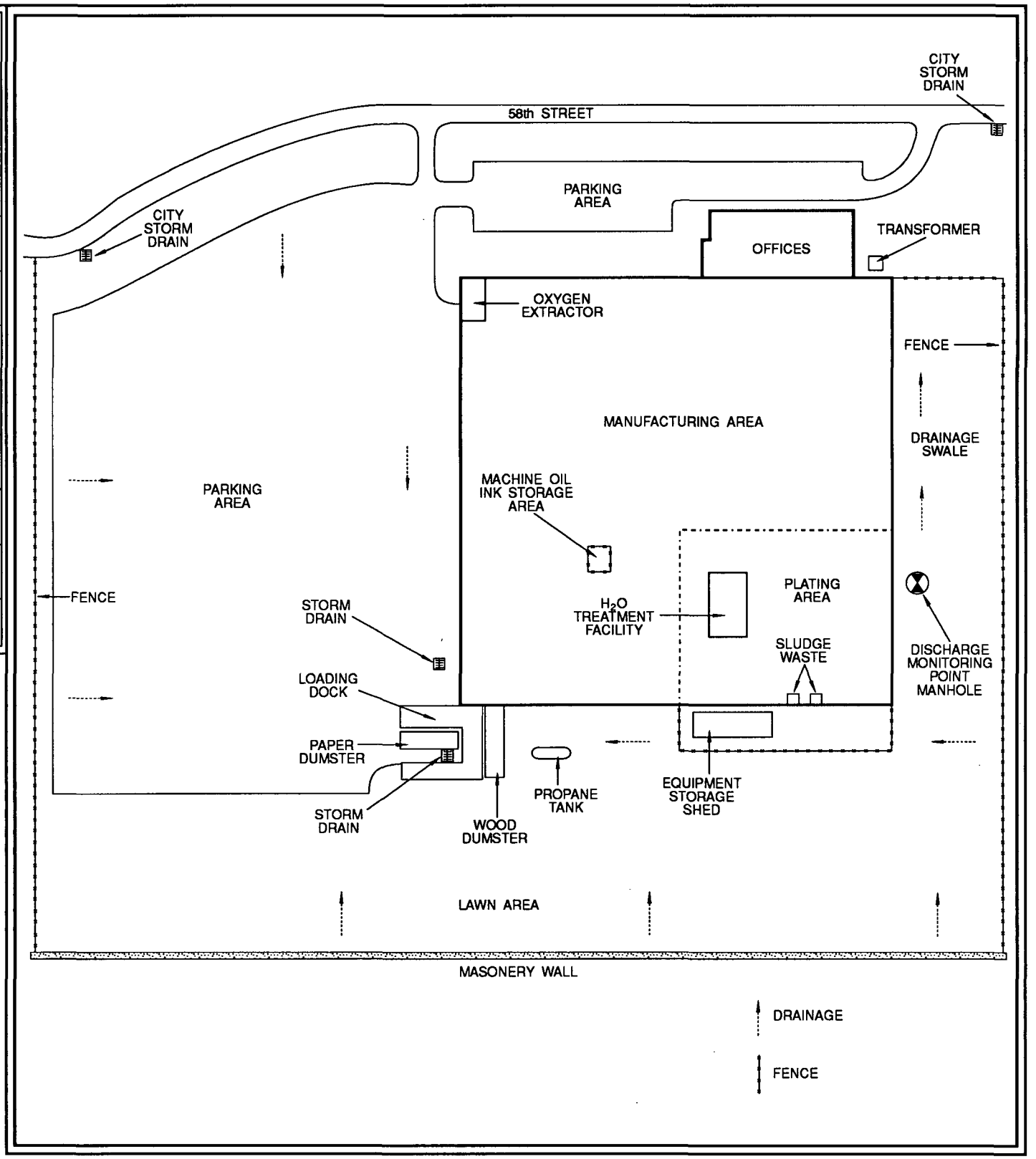
| GH | VLR | | | CO617 | 37631-146-01 |




N

NOT TO SCALE

FIGURE 2

**SITE SKETCH**

THOMAS & BETTS CORPORATION
TULSA, OKLAHOMA

SOURCE:
SKETCHED BASED
ARCS ON-SITE RECON
OCTOBER 12,1993

CERCLIS #OKD070038823

facility filed the EPA Generator Biennial Hazardous Waste Report for 1983 on April 18, 1984 (Ref. 17).

The facility also holds an Industrial Wastewater Discharge Permit from the City Of Tulsa Public Works Department, Industrial Pretreatment Division (Ref. 18). The permit (#6337) is renewable annually.

## 2.4 WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION

Thomas & Betts Company has two solvent storage units inside the building that are used for cleaning tools and parts (Appendix A). Thomas & Betts has contracted with Safety-Kleen to change out the solvent in these units within a 12 week period (Ref. 11; Ref. 21). Based on the manifests for the first nine months of 1993, the approximate amount of spent solvent generated is 478 gallons per year (Ref. 11; Ref. 21). The constituents of the waste are petroleum naphtha, mineral spirits, aliphatic and aromatic hydrocarbons, and waste paint related material (Ref. 21)

The facility uses machine oil and printing inks in its operation. These products are stored inside a locked, fence cage in the manufacturing area (Ref. 11), (Appendix A), (Figure 2).

Thomas & Betts also operates a wastewater pretreatment facility as part of its plating operation. This pretreatment facility has several stages all contained within a concrete pit inside and building in the plating area (Appendix A). The first, is a cyanide destruction tank, next is a chrome reduction tank, then a neutralization tank, followed by a precipitation unit (clarifier). The water then goes through a filtration unit for sludge removal, after which it is discharged into the sanitary sewer to the Tulsa Publicly Owned Treatment Works (POTW) (Ref. 13, p. 5) (Appendix A), (Figure 2). The effluent is monitored by the City of Tulsa and by Thomas & Betts on a random schedule (Ref. 11; Ref. 29). The dried sludge waste is stored in bulk bags in side the building in the plating area for less then 90 days (Ref. 11) before it is transported off-site for recycling by World Resources Company (Ref. 20). The facility disposes of approximately 6.8 tons of the sludge per year, based on the manifests for the first nine months of 1993 (Ref. 20). The sludge contained the following constituents: copper, nickel, barium, lead, silver and zinc (Ref. 2; Ref. 22).

Thomas & Betts also have a 15 cubic yard dumpster for wood waste only that is taken to the local municipal landfill for disposal. A second 20 cubic yard dumpster is used for paper and cardboard products which are incinerated at an industrial incinerator. Both dumpster are contracted through BFI (Ref. 11).

## 2.5 SUMMARY OF RECONNAISSANCE INSPECTION

An on-site reconnaissance inspection was conducted on October 12, 1993 by the MK/ICF team. The weather was clear and the temperature was in the mid to upper 70s (F°). On the site the team was greeted by Gary Stienke, Production Manager, Mohan Asthana, Environmental Supervisor and Charles Ochinegro, Plant Manager. The three plant representatives and the MK/ICF Team met in a conference room and discussed the plant and its operations. The Team reviewed the plant's history and regulatory involvement. The plant representatives provided the documentation for each aspect of their operation. The interview was followed by a tour of the facilities interior and exterior. When the tour was completed there was a brief summary of the facility and an invitation to provide any further information that might be necessary. The

reconnaissance team investigated the surrounding area for nearby land uses and resources. The area around the site is commercial and industrial. The closest occupied building to the site is the Stewart C. Irby Electrical distributors located adjacent to the site to the east. The closest residence is approximately ¼ mile to the west, off of Mingo Avenue. There is a drainage ditch approximately 800 feet to the northwest of the site (Ref. 28).

# 3.0 PATHWAY ASSESSMENT

This section characterizes the environmental pathways and associated targets of contaminant migration from the facility.

## 3.1 GROUND WATER PATHWAY

### 3.1.1 Ground Water Characteristics

The geologic structure of importance for ground water under the Tulsa area is the Seminole Formation. The outcrop of the Seminole Formation extends diagonally across Tulsa County from the northeast to the southwest corner, and underlies the eastern two-thirds of the city of Tulsa. The Formation is composed of shale and sandstone. The sandstone beds are believed to be among the better sources of ground water in the county, and normally yield water in moderate quantities. The shale beds yield little water (Ref. 7). In the area of the site the Seminole Formation is located approximately 50 feet below the surface and it extends approximately 220 vertical feet (Ref. 25, p. 46). The ground water flow of the Seminole Formation is generally north-northwest (Ref. 25, p. 106). The average water bearing depth in the area is 200 to 250 feet and yields about 5 gallons per minute (Ref. 7).

The net precipitation for the area is 12.13 inches per year (Ref. 8).

### 3.1.2 Ground Water Receptors

Ground water use in the 4-mile target distance limit includes irrigation of crops (Ref. 30). There are no known municipalities or rural water districts using ground water in the target area (Ref. 27). It is possible that domestic wells exist, but most people are served by surface water sources via the City of Tulsa Water Department (Ref. 30).

## 3.2 SURFACE WATER PATHWAY

### 3.2.1 Surface Water Characteristics

Drainage from the site is in a northerly direction (Ref. 4). A swale crosses the eastern site area and directs the surface water runoff to the north side of the site, where it enters the city storm drain on the south side of 58th Street just to the east of the site (Figure 2). The drainage on the south and west sides of the facility flow to area storm drains in the parking lot on the west side of the building (Figure 2). These area drains flow to the north-northwest and are connected to the city storm water drains just to the north of the site (Figure 2). Thomas & Betts monitors the storm water run-off from their site (Ref. 19).

The city storm water drains flow to the northwest approximately 800 feet and empty into a run-off ditch that flows northeast approximately 2 miles to the intermittent Mingo Creek (Ref. 4). The intermittent Mingo Creek flows to the north for approximately 3.5 miles until it becomes perennial (Ref. 4) (Figure 1). There is no surface water within an overland flow distance of 2 miles from the site (Ref. 4). The nearest perennial surface water to the site is the perennial segment of the Mingo Creek which is 5.75 stream miles from the site (Ref. 4).

The native soils underlying the site consist of Okemah-Parsons-Carytown complex on a 0 to 1 percent slope (Ref. 9, plat 31). This is a complex of the moderately well drained, slowly permeable Okemah soil; the somewhat poorly drained, very slowly permeable Parsons soil; and the poorly drained, very slowly permeable Carytown soil. This complex is 50 percent Okemah soils, 30 percent Parsons soils, and 20 percent Carytown soils (Ref. 9, p. 24). The surface layer is a dark grayish-brown slightly acidic loam 8 to 17 inches thick. The subsoil is a dark grayish-brown silty clay-loam. The lower soil to a depth of 74 inches is a grayish brown mildly alkaline silty clay. Permeability is slow, and available water capacity is medium. Run off is medium, and the hazard of erosion is low (Ref. 9, pp. 24, 25, plate 31).

The site is listed on the Tulsa County, November 20, 1991 Flood Map, Community 405381, Panel 0070F. The site is listed in a Zone C Area which is determined to be outside any floodplain (Ref. 23).

The two-year, 24-hour rainfall estimate for the area is 4 inches (Ref. 10).

### 3.2.2 Surface Water Receptors

The City of Tulsa water supply comes from surface water sources only, Lake Oologah and Lake Spavinor (Ref. 27; Ref. 30). The intakes for their system are located approximately 27 miles northeast from the site (Ref. 4; Ref. 30). The Tulsa Water Works services approximately 131,938 connections (Ref. 30). The estimated population per household in Tulsa County is 2.45 (Ref. 24); therefore, the estimated population served by the Tulsa Water Works is 323,248.

## 3.3 GROUND WATER RELEASE TO SURFACE WATER PATHWAY

The closest perennial surface water body to the site is Mingo Creek, 5.75 stream miles from the site (Ref. 4). Because the surface water is greater than one mile from the site ground water to surface water interface is unlikely.

## 3.4 SOIL EXPOSURE PATHWAY

### 3.4.1 Resident Threat Receptors

There are no on-site residents, or residents within 200 feet of observed or suspected contamination (Ref. 4; Ref. 28). There are no schools or daycare centers identified on-site or within 200 feet of the site (Ref. 4; Ref. 28). There are approximately 120 workers employed at the site (Ref. 11).

### 3.4.2 Nearby Threat Receptors

The site is located on a fenced 5-acre tract of land (Ref. 11) (Appendix A). The site is an active manufacturing facility that has workers on site during normal business hours.

The nearest residence is located approximately ¼ mile west of the site boundary (Ref. 28) (Appendix A). The nearest occupied building is the Stewart C. Irby electrical distributors building located adjacent to the east of the site (Ref. 28). There are approximately 6440 residents living within the 1-mile radius of the site (Ref. 5). There are 2 schools located within 1 mile (Figure 1).

## 3.5 AIR PATHWAY

### 3.5.1 Air Pathway Characteristics

Air samples have not been collected at the site. There is no information available to indicate a suspected release to air. The Thomas & Betts facility has been granted 9 operating permits by the Oklahoma State Department of Health, Air Quality Service for the operation of various components of its plating operations (Ref. 12).

### 3.5.2 Air Receptors

There are approximately 120 workers employed at the site (Ref. 11). The estimated number of persons residing within the various target distance radii are as follows: 0 to ¼ mile is 34; within ¼ to ½ mile is 498; within ½ to 1 mile is 5908; within 1 to 2 miles is 21,845; within 2 to 3 miles is 35,375; within 3 to 4 miles is 58,941 (Ref. 5).

No major recreational areas were identified within 0.5 miles of the site (Figure 1).

# 4.0 SUMMARY

Thomas & Betts Corporation is located at 9932 East 58th Street South, Tulsa, Tulsa County Oklahoma. It is an active manufacturing facility with 120 employees. The plant manufactures electrical connectors and terminals.

The wastes generated at the site include 6.8 tons of plating sludge per year and approximately 478 gallons of spent solvents. The sludge wastes from the facility are removed under the 90-day limit and disposed by World Resources Company. The solvent wastes are removed and recycled by Safety-Kleen Corporation. The wood and paper wastes are removed by BFI. The facility also has a industrial wastewater pretreatment facility located inside the plant for the treatment of its plating effluent. Thomas & Betts has a program to monitor the effluent in addition to the city of Tulsa's monitoring. The facility also monitors the storm water runoff from the site.

A history of the facility's regulatory involvement with the EPA includes registering as a storage facility, filing the Part A application, receiving interim status classification and changing from storage status to generator status. The facility has registered with the Oklahoma State Department of Health for Air Quality Permits for the plating operation. The facility also has maintained a permit for Industrial Wastewater pretreatment discharge with the city of Tulsa.

Ground waters range in depth from 200 to 250 feet deep. Wells produce less than 5 gallons per minute. The primary aquifer for water supplies is the Seminole Formation and is located 50 to 270 feet below the surface.

Surface water runoff from the site flows for over 5 miles before reaching a perennial water body. Thomas & Betts monitors the storm water runoff from its facility for their own records.

No known surface soil contamination was observed during the on-site reconnaissance or indicated by available documentation. There is no analytical data or circumstantial evidence to suspect releases to the air.

There are no schools or daycare centers located on-site or within 200 feet of the facility. There are 120 employees on the site. No sensitive environments or resource uses were identified on the site.

## PA DOCUMENTATION LOG SHEET

**SITE:** Thomas & Betts Corporation

**IDENTIFICATION NUMBER:** OKD070038823

**CITY:** Tulsa

**STATE:** Oklahoma

| REFERENCE NUMBER | DESCRIPTION OF THE REFERENCE |
|---|---|
| 1 | U.S. Environmental Protection Agency, Guidance for Performing Preliminary Assessment Under CERCLA, September, 1991. |
| 2 | Superfund Chemical Data Matrix Appendices B-1, B-2, C; April 27, 1993 |
| 3 | P.A. Score 2.1, Tutorial and Manual. |
| 4 | U.S.G.S. 7.5 Minute Series Topographic Maps of Oklahoma: Tulsa, 1954, Photorevised 1982; Mingo, 1955, Photorevised 1982; Jenks, 1952, Photorevised 1982; Broken Arrow, 1955, Photorevised 1982. |
| 5 | U.S. Environmental Protection Agency, Geographical Exposure Modeling System (GEMS) database, compiled from U.S. Census Bureau 1990, data. Accessed November 2, 1993. |
| 6 | U.S. Environmental Protection Agency, "Potential Hazardous Waste Site Identification", June 14, 1990. |
| 7 | Malcolm C. Oakes et. al. "Oklahoma Geological Survey", Bulliten No. 69, Oklahoma Geologic Society, 1952, p.151. |
| 8 | Letter. HRS Net Precipitation Values. From: Andrew M. Platt, Group Leader, Mitre Corporation. To: Lucy Sibold, U.S. EPA. May 26, 1988 |
| 9 | Soil Survey of Tulsa County, Oklahoma. United States Department Agriculture, Soil Conservation Service. December 1977, pp. 3, 4, 24, 25, General Soil Map, Soil Legend, and Sheet Number 31. |
| 10 | Herschfield, D.M.,Rainfall Frequency Atlas of the United States. U.S. Weather Bureau Technical Paper No 40. 1961. |
| 11 | Record of Communication. Site Information. From: Gregory Hoffmann, ARCS Task Manager, ICF Technology, Inc. To: Thomas & Betts, file October 12, 1993. OKD070038823 |

| REFERENCE NUMBER | DESCRIPTION OF THE REFERENCE |
|---|---|
| 12 | Letter: Oklahoma State Department of Health "Operating Permits". From: Grant C. Marburger, Head Permit Section Air Quality Service. To: W.A. Pattyson Manager of Operations, Thomas & Betts. April 6, 1978. OKD070038823. |
| 13 | U.S. Environmental Protection Agency, "General Information Form 3510". November 7, 1980. OKD070038823. |
| 14 | Letter: U.S. Environmental Protection Agency, "Interim Status". From: Allyn Davis, Director, Air and Waste Management Division. To: Gary Stienke, Plating Supervisor, Thomas & Betts. September 1, 1982. OKD070038823. |
| 15 | Letter: Thomas & Betts Company, "Change of Status and Closure Report". From: Gary Stienke, Production Manager. To: Mr. Donald Hensch, Oklahoma State Department of Health. April 1, 1983. OKD070038823. |
| 16 | U.S. Environmental Protection Agency, "Notification of Hazardous Waste Activity", August 6, 1990. OKD070038823 |
| 17 | U.S. Environmental Protection Agency, "Generator Biennial Hazardous Waste Report for 1983", April 18, 1984. OKD070038823. |
| 18 | City of Tulsa Public Works Department "Industrial Wastewater Discharge Permit". To: Thomas & Betts, May 1, 1993. OKD070038823. |
| 19 | Report: Metlabs Testing Service "Storm Water Analysis". From: George Dust, Vice President. To: Mohan Asthana, Environmental Superviser Thomas & Betts. June 21, 1993 & September 3, 1993. OKD070038823. |
| 20 | Uniform Hazardous Waste Manifest. World Resources Company, Facility. Thomas & Betts Corporation, Generator. February 8, May 3, July 7, September 22, 1993. OKD070038823. |
| 21 | Uniform Hazardous Waste Manifest. Safety-Kleen Corporation, Facility Thomas & Betts Corporation, Generator. January 4, February 25, March 30, May 20, June 25, June 28, August 13, September 16, October 7, 1993. OKD070038823. |
| 22 | Report: World Resources Company "Recyclable Material Profile". From: Patricia Nelson, Technical Manager. To: Mohan Asthana, Environmental Superviser Thomas & Betts. August 11, 1993. OKD070038823. |

## PA DOCUMENTATION LOG SHEET

**Continued**

| REFERENCE NUMBER | DESCRIPTION OF THE REFERENCE |
|---|---|
| 23 | Record of Communication. Flood Plain Information For Thomas & Betts. From: Gregory C. Hoffmann ARCS Task Manager, ICF Technology, Inc. To: Stephanie, U.S. Army Corp. of Engineers, Tulsa, Oklahoma. November 9, 1993. OKD070038823. |
| 24 | U.S. Department of Commerce, Current Population Reports, Special Studies Series P-23, No. 156, Estimates of Households, for Counties: July 1, 1985, Issued March 1988. |
| 25 | A.P. Bennison et.al. "Tulsa's Physical Environment", Tulsa Geological Society, Inc. Volume 27, 1972, pp 46, 103, 105, 106, 108. |
| 26 | Code of Federal Regulations 40, parts 260 to 299. Revised as of July 1, 1990. p. 48, 54, 56, 59, 61, 63. |
| 27 | Record of Communication. Tulsa's Water Supply. From: Gregory C. Hoffmann, ARCS Task Manager, ICF Technology, Inc. To: Mr. Phil Demoret, City of Tusla Water Department. November 9, 1993. OKD070038823. |
| 28 | Record of Communication. Reconnaissance Summary. From: Gregory Hoffmann, ARCS Task Manager, ICF Technology, Inc. To: Thomas & Betts Corporation File. October 12, 1993. OKD070038823. |
| 29 | Report: Metlabs Testing Service "Industrial Wastewater Discharge Analysis". From: George Dust, Vice President. To: Mohan Asthana, Environmental Superviser Thomas & Betts. September 23, 1993. OKD070038823. |
| 30 | Record of Communication. Tulsa's Water Sources. From: Gregory C. Hoffmann, ARCS Task Manager, ICF Technology, Inc. To: Mr. Monti Hannon and Mr. Mike Meyers, City of Tusla Water Department. November 17, 1993. OKD070038823. |

# APPENDIX A

ICF TECHNOLOGY INCORPORATED

PHOTO. # 1
NEG. # 0

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | GREGORY C. HOFFMANN | WITNESS | MENGISTU LEMMA |
| DATE 10-12-93 | TIME 1150 | DIRECTION | NORTHEAST |
| COMMENTS | WELCOME SIGN FOR THE RECONNAISSANCE TEAM. | | |

ICF TECHNOLOGY INCORPORATED

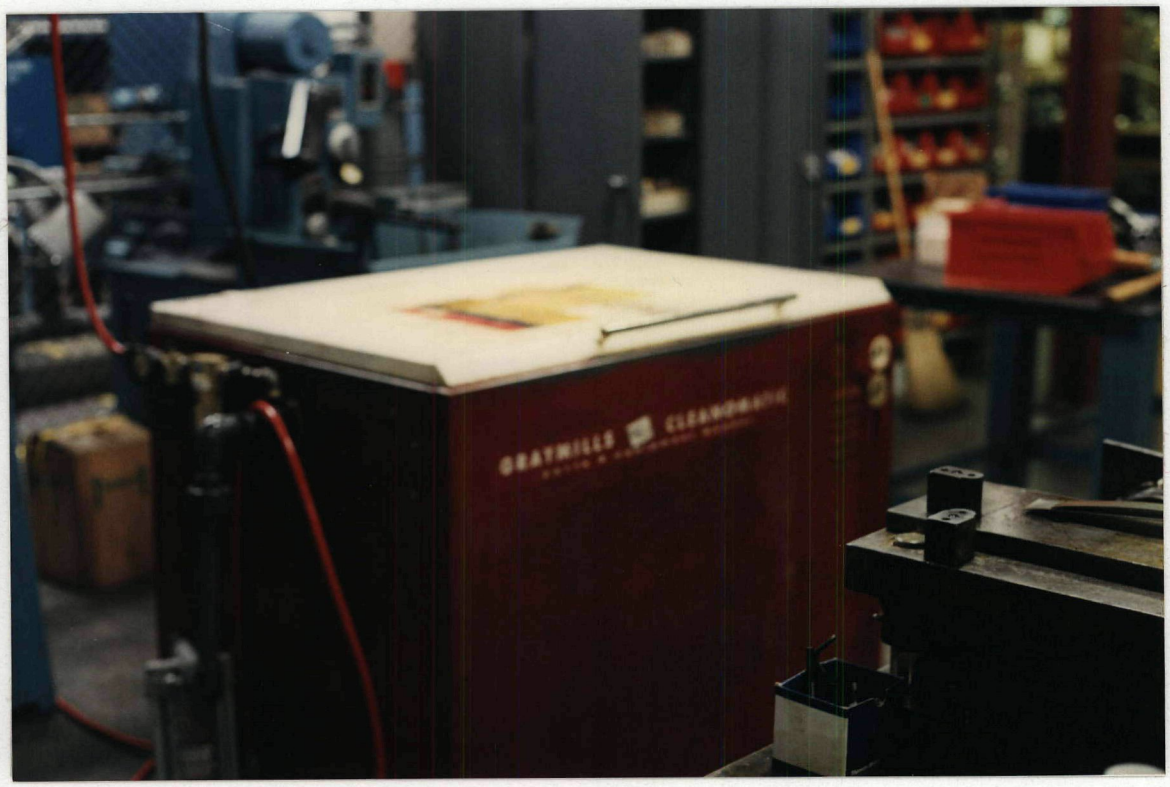



PHOTO. # 2
NEG. # 1

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1300 | DIRECTION | NORTHEAST |
| COMMENTS | SAFETY-KLEEN SOLVENT STORAGE UNIT # 1, PARTS CLEANING MACHINE | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 3
NEG. # 2

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1302 | DIRECTION | SOUTH |
| COMMENTS | SAFETY-KLEEN SOLVENT STORAGE UNIT # 2, PARTS CLEANING MACHINE FOR MECHANICAL AND MAINTENANCE. | | |

ICF TECHNOLOGY INCORPORATED

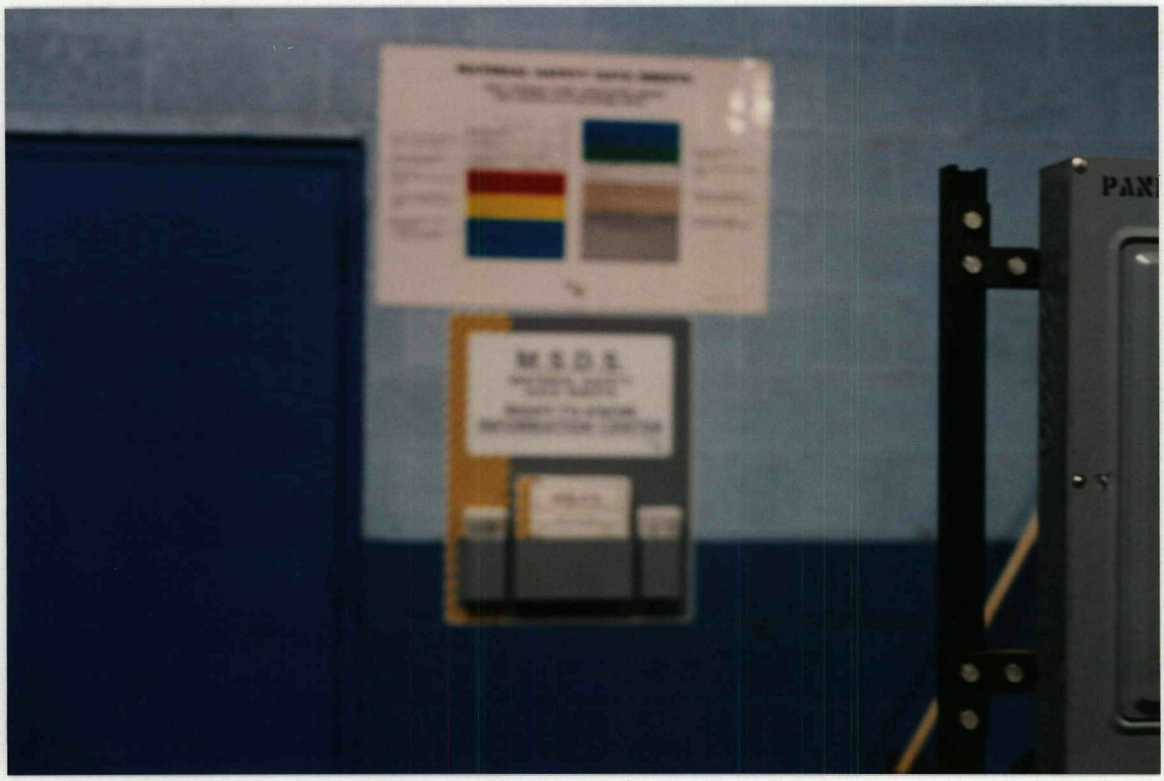



PHOTO. # 4
NEG. # 3

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1305 | DIRECTION | SOUTH |
| COMMENTS | ONE OF SEVERAL EMPLOYEE RIGHT-TO-KNOW, MATERIAL SAFETY DATA SHEET INFORMATION CENTERS. | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 5
NEG. # 4

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1309 DIRECTION SOUTHWEST

COMMENTS STORAGE AREA FOR MACHINE OIL AND PRINTING INK.

ICF TECHNOLOGY INCORPORATED

PHOTO. # 6
NEG. # 5

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE | 10-12-93 | TIME 1313 | DIRECTION SOUTH |
| COMMENTS | STORAGE AREA FOR THE DRIED PLATING SLUDGE WASTE INSIDE THE BUILDING. | | |

ICF TECHNOLOGY INCORPORATED

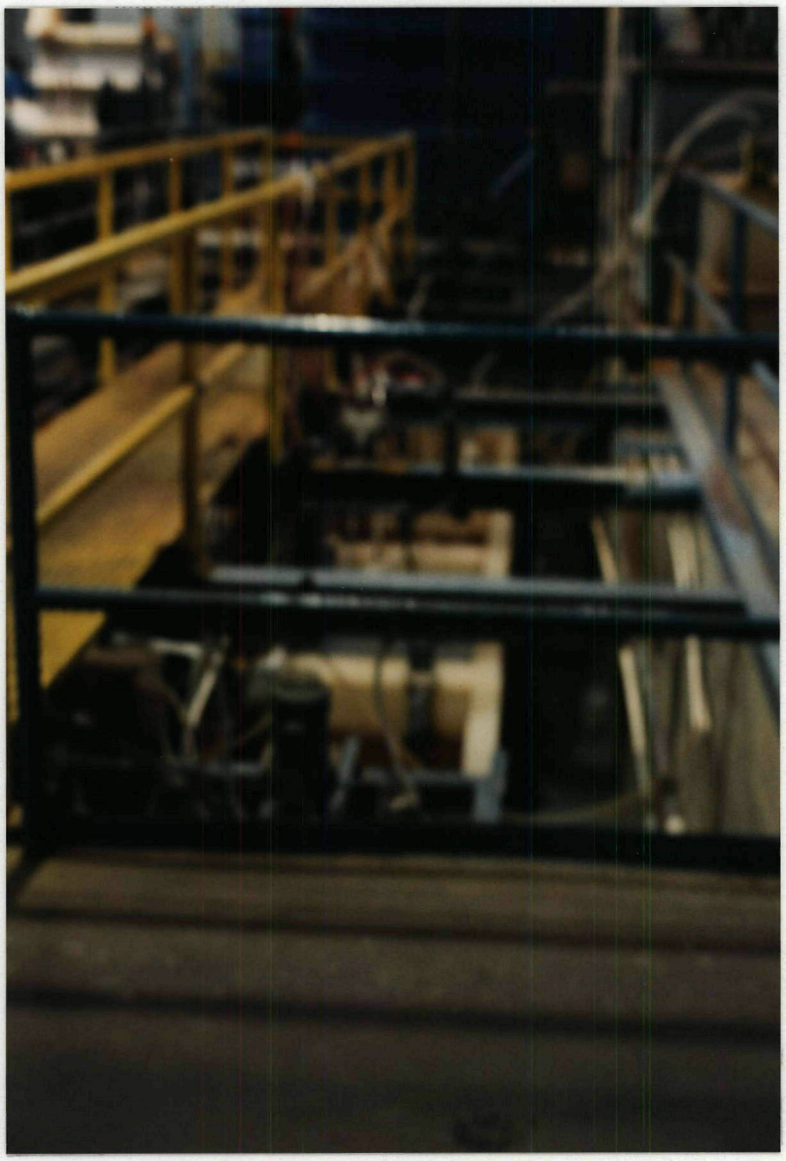


PHOTO. # 7
NEG. # 6

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1317 DIRECTION SOUTH

COMMENTS WASTE WATER PRETREATMENT FACILITY INSIDE THE BUILDING.

ICF TECHNOLOGY INCORPORATED

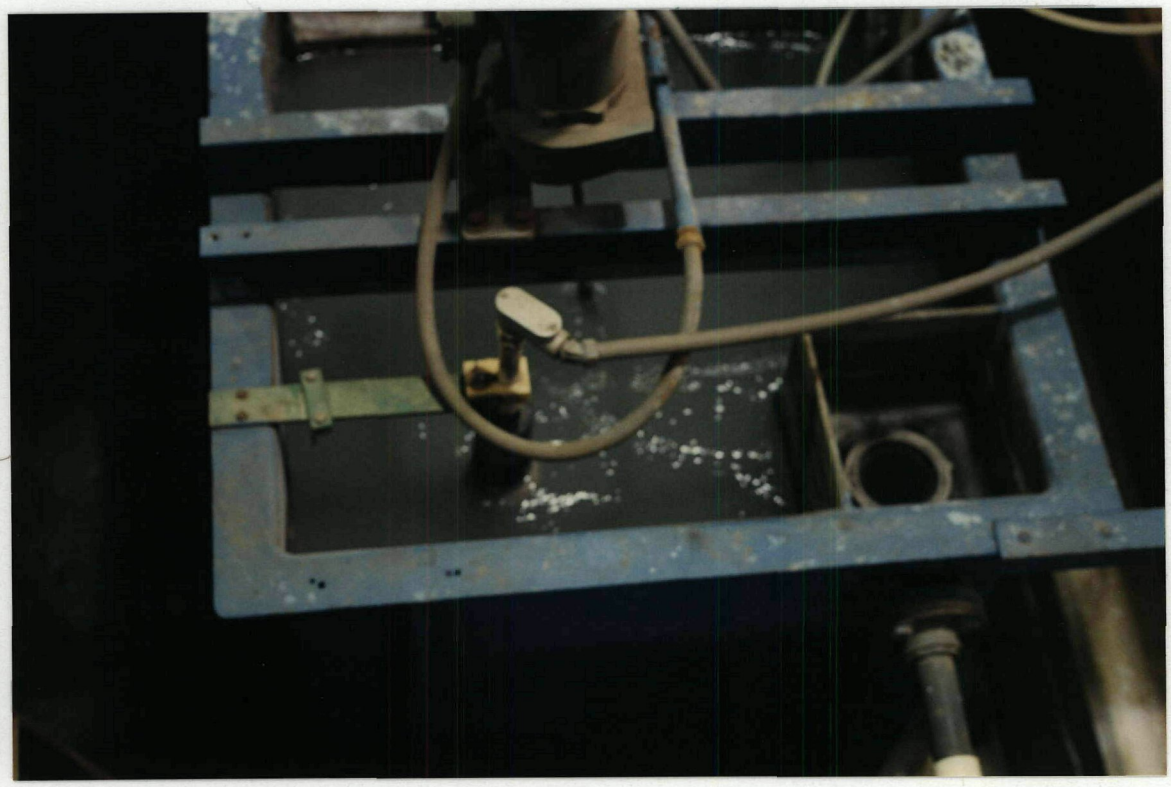


PHOTO. # 8
NEG. # 7

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1319 | DIRECTION | EAST |
| COMMENTS | LOOKING DOWN AT ONE OF THE WASTE WATER PRETREATMENT TANKS. | | |

ICF TECHNOLOGY INCORPORATED

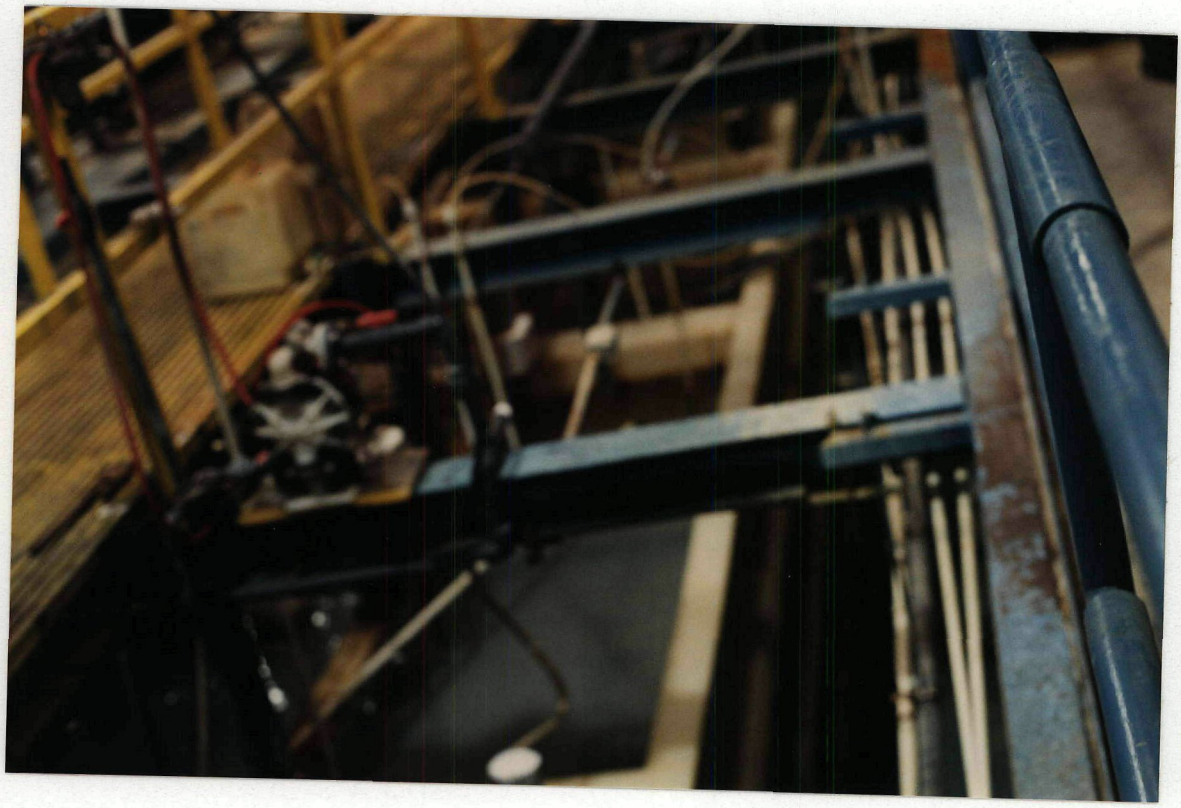


PHOTO. # 9
NEG. # 8

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1319 | DIRECTION | SOUTHEAST |
| COMMENTS | LOOKING DOWN AT THE WASTE WATER PRETREATMENT TANKS. | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 10
NEG. # 9

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1322 | DIRECTION | NORTH |
| COMMENTS | INSPECTION MANHOLE FOR MONITORING THE PRETREATED WASTEWATER DISCHARGE TO THE CITY SANITARY SEWER. | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 11
NEG. # 10

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1324 DIRECTION WEST

COMMENTS PANORAMA OF THE EAST SIDE OF THE FACILITY. THE UNITS ON THE ROOF ARE THE EXHAUST VENTS FOR THE PLATING AREA.

ICF TECHNOLOGY INCORPORATED

PHOTO. # 12
NEG. # 11

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1324 DIRECTION WEST

COMMENTS PANORAMA OF THE EAST SIDE OF THE FACILITY CONTINUED.

ICF TECHNOLOGY INCORPORATED

PHOTO. # 13
NEG. # 12

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1324 | DIRECTION | WEST |
| COMMENTS | PANORAMA OF THE EAST SIDE OF THE FACILITY CONTINUED. | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 14
NEG. # 13

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1324 DIRECTION WEST

COMMENTS PANORAMA OF THE EAST SIDE OF THE FACILITY CONTINUED, SHOWING THE FRONT SIDE OF THE FACILITY WITH THE TRANSFORMER.

ICF TECHNOLOGY INCORPORATED

PHOTO. # 15
NEG. # 14

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1330 | DIRECTION | NORTH |
| COMMENTS | SOLID WASTE DUMPSTER UNIT FOR WOOD MATERIALS ONLY. | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 16
NEG. # 15

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1331 DIRECTION EAST

COMMENTS STORM WATER CATCH BASIN AND DRAIN LINES FOR THE SOUTH SIDE OF THE PROPERTY.

ICF TECHNOLOGY INCORPORATED

PHOTO. # 17
NEG. # 16

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1336 DIRECTION EAST

COMMENTS SOLID WASTE COMPACTOR, DUMPSTER UNIT FOR PAPER AND CARDBOARD ONLY.

ICF TECHNOLOGY INCORPORATED

PHOTO. # 18
NEG. # 17

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1338 | DIRECTION | NORTH |
| COMMENTS | CONCRETE AND ASPHALT PARKING LOT OH THE WEST SIDE OF THE FACILITY. NOTE THE SLOPE OF THE GRADE FOR DRAINAGE. | | |

PHOTO. # 19
NEG. # 18

| | | | |
|---|---|---|---|
| SITE NAME | THOMAS & BETTS CORPORATION | | |
| SITE LOCATION | TULSA, OKLAHOMA | | |
| CERCLIS # | OKD070038823 | PROJECT # | 37631-146-01 |
| PHOTOGRAPHER | MENGISTU LEMMA | WITNESS | GREGORY C. HOFFMANN |
| DATE 10-12-93 | TIME 1343 | DIRECTION | SOUTH |
| COMMENTS | PANORAMA OF THE FRONT OF THE FACILITY FROM 58TH STREET. | | |

ICF TECHNOLOGY INCORPORATED

PHOTO. # 20
NEG. # 19

SITE NAME THOMAS & BETTS CORPORATION

SITE LOCATION TULSA, OKLAHOMA

CERCLIS # OKD070038823 PROJECT # 37631-146-01

PHOTOGRAPHER MENGISTU LEMMA WITNESS GREGORY C. HOFFMANN

DATE 10-12-93 TIME 1343 DIRECTION SOUTH

COMMENTS PANORAMA OF THE FRONT OF THE FACILITY FROM 58TH STREET CONTINUED.

**REFERENCE 1**

Publication 9345.0-01A
September 1991

# Guidance for Performing Preliminary Assessments Under CERCLA

Hazardous Site Evaluation Division
Office of Emergency and Remedial Response
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency
Washington, DC 20460

**REFERENCE 2**

Handout #8

# SUPERFUND CHEMICAL DATA MATRIX

March 1993

# REFERENCE 3

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

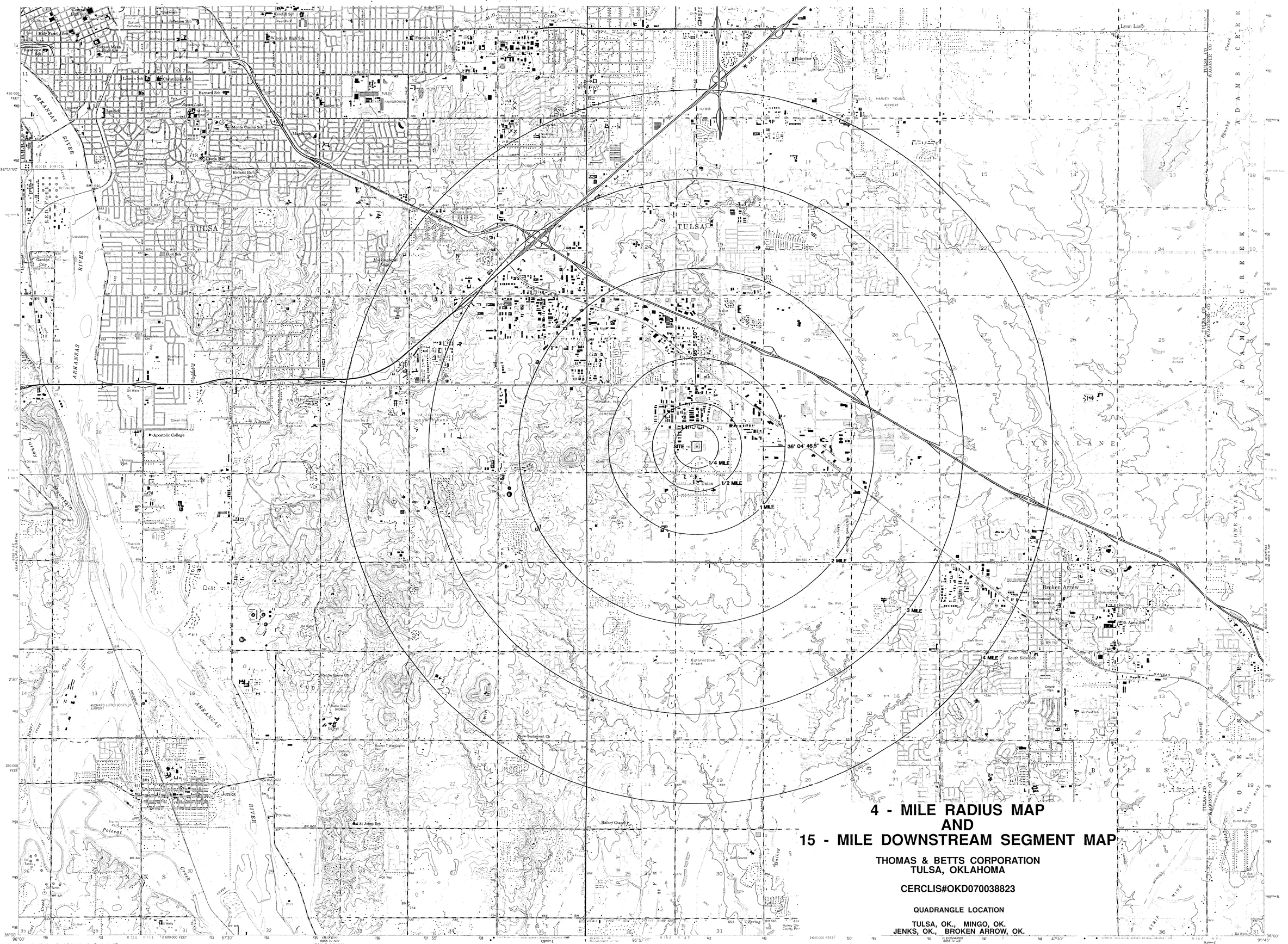
EPA/540/P-91/010
September 1991

EPA

# PA-Score Software

## Users Manual and Tutorial
## Version 1.0

# REFERENCE 4




# 4 - MILE RADIUS MAP AND 15 - MILE DOWNSTREAM SEGMENT MAP

## THOMAS & BETTS CORPORATION
## TULSA, OKLAHOMA

**CERCLIS#OKD070038823**

**QUADRANGLE LOCATION**

**TULSA, OK., MINGO, OK.**
**JENKS, OK., BROKEN ARROW, OK.**

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, USCE, and Oklahoma Geodetic Survey

Culture and drainage in part compiled from aerial photographs taken 1950. Topography by plane-table surveys 1951-1952 and in part by U. S. Corps of Engineers

Polyconic projection. 1927 North American datum
10,000 foot grid based on Oklahoma coordinate system, north zone
1000 meter Universal Transverse Mercator grid ticks, zone 15, shown in blue

Red tint indicates area in which only landmark buildings are shown

To place on the predicted North American Datum 1983 move the projection lines 4 meters south and 23 meters east as shown by dashed corner ticks

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND BY THE OKLAHOMA GEOLOGICAL SURVEY, NORMAN, OKLAHOMA 73069
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1980 and other sources. Map edited 1982
This information not field checked
Purple tint indicates extension of urban area

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U. S. Route — State Route

**JENKS, OKLA.**
36095-A8-TF-024
1952
PHOTOREVISED 1982
DMA 6856 III SW—SERIES V883

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and Oklahoma Geological Survey

Topography from aerial photographs by Kelsh plotter
Aerial photographs taken 1954. Field check 1955

Polyconic projection. 1927 North American datum
10,000 foot grid based on Oklahoma coordinate system, north zone
1000 meter Universal Transverse Mercator grid ticks, zone 15, shown in blue

To place on the predicted North American Datum 1983 move the projection lines 4 meters south and 23 meters east as shown by dashed corner ticks

Red tint indicates area in which only landmark buildings are shown

UTM GRID AND 1984 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND BY THE OKLAHOMA GEOLOGICAL SURVEY, NORMAN, OKLAHOMA 73069
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1980 and other sources. Map edited 1982
This information not field checked
Purple tint indicates extension of urban area

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
State Route

**BROKEN ARROW, OKLA.**
N 3600—W 9545/7.5
1955
PHOTOREVISED 1982
DMA 6856 III SE—SERIES V883

# REFERENCE 5

TGEMS> 4.8

Enter the next ring distance
TGEMS> 6.4

Enter the next ring distance
TGEMS>

Enter program execution mode: B (batch) or I (interactive)
TGEMS> i

Tulsa
LATITUDE 36: 4:46 LONGITUDE 95:51:50 1990 POPULATION

| KM | 0.00-.400 | .400-.810 | .810-1.60 | 1.60-3.20 | 3.20-4.80 | 4.80-6.40 | SECTOR TOTALS |
|---|---|---|---|---|---|---|---|
| S 1 | 34 | 498 | 5908 | 21845 | 35375 | 58941 | 122601 |
| RING TOTALS | 34 | 498 | 5908 | 21845 | 35375 | 58941 | 122601 |

press RETURN to continue
Esc for ATtention, Home to SWitch ‖ Capture Off ‖ On: 00:09:08

accessed by
Angela Jones
11/2/93

5908
498
34
6440 (1-mile)

**REFERENCE 6**

EPA **POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION**

| REGION | SITE NUMBER |
|---|---|
| 6 | OKD070038823 |

**NOTE:** The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

| A. SITE NAME | B. STREET (or other identifier) | | | |
|---|---|---|---|---|
| Thomas & Betts Co. | 9932 E. 58th Street | | | |
| **C. CITY** | **D. STATE** | **E. ZIP CODE** | **F. COUNTY NAME** | Code |
| Tulsa | OK | 74145 | Tulsa | 143 |

**G. OWNER/OPERATOR** (if known)

1. NAME Gary Steinke Sup. - Plati
9932 East 58th Street So./ Tulsa, OK/ 74145

2. TELEPHONE NUMBER 918-252-0466

**H. TYPE OF OWNERSHIP** (if known)

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☐ 5. PRIVATE ☐ 6. UNKNOWN

**I. SITE DESCRIPTION**

Lat 36 / 04 / 46.5 Lon 095 / 51 / 57.7

RCRA Site, EPI Site, See RCRA files.

**J. HOW IDENTIFIED** (i.e., citizen's complaints, OSHA citations, etc.)

EPI Site --- Environmental Priorities Initiative

**K. DATE IDENTIFIED** (mo., day, & yr.) 4 / 12 / 90

**L. SUMMARY OF POTENTIAL OR KNOWN PROBLEM**

Site designated by RCRA as an EPI site, status CLOSE or CLOSURE.

SUPERFUND FILE

SEP 15 1992

REORGANIZE

**M. PREPARER INFORMATION**

1. NAME Bartolome J. Canellas (6H-MA)

2. TELEPHONE NUMBER 214-655-6740

3. DATE (mo., day, & yr.) 6/14/90

EPA Form 2070-8 (5-80)

OKD 070038823
Thomas & Betts Co

# REFERENCE 7

OKLAHOMA GEOLOGICAL SURVEY

ROBERT H. DOTT, DIRECTOR

Bulletin No. 69

# GEOLOGY AND MINERAL RESOURCES OF TULSA COUNTY OKLAHOMA

(INCLUDES PARTS OF ADJACENT COUNTIES)

BY

MALCOLM C. OAKES

With sections on:

OIL AND GAS

BY GLEN S. DILLE

AND

WATER RESOURCES

BY JOHN H. WARREN

Norman

1952

Survey in 1936 recorded 11 wells that probably draw water from this formation. Of these, 2 were said to go dry during drought, 3 to decline in yield or water level, and 6 to show no change. The water from 7 wells was reported as hard and that from 3 as soft. No waters from the Holdenville (Memorial) shale were analyzed for this report.

### Seminole formation

The outcrop of the Seminole formation extends diagonally across Tulsa County from the northeast corner to the southwest corner, and has on it the towns of Collinsville, Glenpool, Mounds, and the eastern two-thirds of Tulsa. The formation is composed of shale and sandstone. The sandstone beds are believed to be among the better sources of ground water in the county, and normally yield water in moderate quantities. The shale beds yield little water. The State Mineral Survey in 1936 recorded 74 wells that probably tap water in the Seminole formation. It was reported that 15 had gone dry during drought, 8 had declined in yield or water level, and 51 had shown no change. The 23 wells that went dry or declined during drought probably did so because they penetrated only shale in the zone of saturation or had not been sunk deep enough below the water table.

Many water wells have been drilled to the Seminole formation within the city limits of Tulsa, and these provide the best available information on the yield of wells and quality of the water. According to well drillers B. O. Lee, Charlie Holebrook, and Ed Chastan, all of whom have drilled wells in the city, the initial production of wells in the Seminole ordinarily is 8 to 16 gallons per minute, ultimately decreasing to about 5 gallons per minute. The water-bearing sandstone is from 20 to about 50 feet below the surface and averages about 16 feet thick. A well 255 feet deep at the Sinclair Building, between Main and Boston streets, tapped a deeper sandstone than most wells, and for some years furnished drinking water for 450 employees. The well logs obtained from Lee indicate that some water is derived from beds of shale and clay, but yields in such beds are erratic. Analyses 1, 20, 215, 290, and 325 represent the waters of the Seminole formation and indicate a wide range in concentration of dissolved mineral matter: sulphates,

# REFERENCE 8

MITRE

26 May 1988
W52-219

Ms. Lucy Sibold
U.S. Environmental Protection Agency
401 M Street, S.W.
Room 2636, Mail Code WH-548A
Washington, D.C. 20460

Dear Ms. Sibold:

Enclosed is a copy of the draft revised HRS net precipitation values for 3,345 weather stations where data were available. The data are presented by state code, station name, latitude longitude, and net precipitation in.inches. A list of state codes is also enclosed.

The net precipitation values are provided to assist the Phase II - Field Testing efforts. It is suggested that the value from the nearest weather station in a similar geographic setting be used as the net precipitation value for a site.

If there are any questions regarding this material, please contact Dave Egan at (703) 883-7866.

Sincerely,

Andrew M. Platt
Group Leader
Hazardous Waste Systems

AMP:DEE/hme

Enclosures

cc: Scott Parrish

The MITRE Corporation
Civil Systems Division
7525 Colshire Drive, McLean, Virginia 22102-3481
Telephone (703) 883-6000 Telex 248977

| FIELD NAME | FIELD DEFINITION |
|---|---|
| STATE-NUMBER | Characters 1-2<br>Cooperative State Code for each State. |

STATE CODE LISTING

| | |
|---|---|
| 01 Alabama | 28 New Jersey |
| 02 Arizona | 29 New Mexico |
| 03 Arkansas | 30 New York |
| 04 California | 31 North Carolina |
| 05 Colorado | 32 North Dakota |
| 06 Connecticut | 33 Ohio |
| 07 Delaware | 34 Oklahoma |
| 08 Florida | 35 Oregon |
| 09 Georgia | 36 Pennsylvania |
| 10 Idaho | 37 Rhode Island |
| 11 Illinois | 38 South Carolina |
| 12 Indiana | 39 South Dakota |
| 13 Iowa | 40 Tennessee |
| 14 Kansas | 41 Texas |
| 15 Kentucky | 42 Utah |
| 16 Louisiana | 43 Vermont |
| 17 Maine | 44 Virginia |
| 18 Maryland | 45 Washington |
| 19 Massachusetts | 46 West Virginia |
| 20 Michigan | 47 Wisconsin |
| 21 Minnesota | 48 Wyoming |
| 22 Mississippi | 49 Not Used |
| 23 Missouri | 50 Alaska |
| 24 Montana | 51 Hawaii |
| 25 Nebraska | 66 Puerto Rico |
| 26 Nevada | 67 Virgin Islands |
| 27 New Hampshire | 91 Pacific Islands |

| | |
|---|---|
| STATION-NUMBER | Characters 3-6<br>Cooperative Station Number Range = 0001-9999. |
| DATA-CODE | Character 7<br>Data Indicator Code<br><br>1 = Maximum Mean Temperature<br>2 = Minimum Mean Temperature<br>3 = Average (Mean) Temperature<br>4 = Heating Degree Days<br>5 = Cooling Degree Days<br>6 = Precipitation (1951-80 Normals only) |


recycled paper

ecology and environment

| OBS | STATE | NAME | | LATNUM | LONNUM | NETPREC |
|---|---|---|---|---|---|---|
| 2256 | 34 | GEARY | | 35.37 | 98.19 | 4.4964 |
| 2257 | 34 | HAMMON | | 35.38 | 99.23 | 3.4714 |
| 2258 | 34 | CHANDLER NO 1 | | 35.42 | 96.53 | 7.7868 |
| 2259 | 34 | MUSKOGEE | | 35.45 | 95.20 | 13.3854 |
| 2260 | 34 | BRISTOW | | 35.50 | 96.24 | 9.3560 |
| 2261 | 34 | KINGFISHER | | 35.51 | 97.56 | 4.9851 |
| 2262 | 34 | GUTHRIE 2 WNW | | 35.53 | 97.27 | 6.5080 |
| 2263 | 34 | TAHLEQUAH 1 SE | | 35.54 | 94.56 | 15.5670 |
| 2264 | 34 | WAGONER | | 35.58 | 95.22 | 13.1829 |
| 2265 | 34 | BIXBY 2 NE | | 35.58 | 95.52 | 11.0351 |
| 2266 | 34 | CUSHING | | 35.59 | 96.46 | 8.3356 |
| 2267 | 34 | TALOGA | | 36.02 | 98.58 | 4.4270 |
| 2268 | 34 | CANTON DAM | | 36.05 | 98.36 | 4.2853 |
| 2269 | 34 | STILLWATER 2 W | | 36.07 | 97.05 | 6.7956 |
| 2270 | 34 | HENNESSEY 1 N | | 36.07 | 97.54 | 5.4596 |
| 2271 | 34 | OKEENE | | 36.07 | 98.19 | 4.3647 |
| 2272 | 34 | ARNETT | | 36.08 | 99.46 | 2.9002 |
| 2273 | 34 | TULSA WSO | //R | 36.11 | 95.54 | 12.1311 |
| 2274 | 34 | MUTUAL | | 36.14 | 99.10 | 3.6868 |
| 2275 | 34 | PERRY | | 36.17 | 97.18 | 6.6988 |
| 2276 | 34 | GAGE FAA AIRPORT | | 36.18 | 99.46 | 2.2430 |
| 2277 | 34 | PRYOR | | 36.19 | 95.19 | 12.9733 |
| 2278 | 34 | CLAREMORE 2 ENE | | 36.19 | 95.35 | 11.5034 |
| 2279 | 34 | CLEVELAND | | 36.19 | 96.28 | 8.2844 |
| 2280 | 34 | JAY | | 36.25 | 94.48 | 15.6198 |
| 2281 | 34 | ENID | | 36.25 | 97.52 | 6.3235 |
| 2282 | 34 | WOODWARD FIELD STATION | | 36.25 | 99.24 | 3.0331 |
| 2283 | 34 | GRAND RIVER DAM | | 36.28 | 95.03 | 12.3742 |
| 2284 | 34 | FORT SUPPLY DAM | | 36.33 | 99.35 | 2.1737 |
| 2285 | 34 | WAYNOKA | | 36.35 | 98.52 | 3.5078 |
| 2286 | 34 | GOODWELL | | 36.36 | 101.39 | 0.5000 |
| 2287 | 34 | PAWHUSKA | | 36.40 | 96.21 | 8.2882 |
| 2288 | 34 | VINITA 3 NNE | | 36.41 | 95.08 | 14.9201 |
| 2289 | 34 | NOWATA | | 36.42 | 95.38 | 11.1388 |
| 2290 | 34 | JEFFERSON | | 36.43 | 97.48 | 5.2929 |
| 2291 | 34 | PONCA CITY FAA AIRPORT | | 36.44 | 97.06 | 7.3379 |
| 2292 | 34 | BOISE CITY 2 E | | 36.44 | 102.29 | 0.8773 |
| 2293 | 34 | BARTLESVILLE 2 W | | 36.45 | 96.00 | 9.1799 |
| 2294 | 34 | CHEROKEE POWER PLANT | | 36.46 | 98.21 | 4.0338 |
| 2295 | 34 | ALVA | | 36.48 | 98.39 | 3.4707 |
| 2296 | 34 | BEAVER 1 SW | | 36.48 | 100.31 | 1.8764 |
| 2297 | 34 | BUFFALO | | 36.50 | 99.37 | 3.5599 |
| 2298 | 34 | MIAMI | | 36.53 | 94.52 | 13.9034 |
| 2299 | 34 | NEWKIRK | | 36.53 | 97.04 | 6.9173 |
| 2300 | 34 | HOOKER 1 N | | 36.53 | 101.13 | 1.5883 |
| 2301 | 34 | KENTON | | 36.54 | 102.58 | 0.4497 |
| 2302 | 34 | HULAH DAM | | 36.55 | 96.06 | 8.6784 |
| 2303 | 35 | BROOKINGS | | 42.03 | 124.17 | 57.5315 |
| 2304 | 35 | LAKEVIEW | | 42.11 | 120.21 | 8.1923 |
| 2305 | 35 | KLAMATH FALLS 2 SSW | | 42.12 | 121.47 | 7.4067 |
| 2306 | 35 | ASHLAND 1 N | | 42.13 | 122.43 | 8.7376 |
| 2307 | 35 | ROUND GROVE | | 42.20 | 120.53 | 9.3357 |
| 2308 | 35 | MEDFORD WSO | R | 42.22 | 122.52 | 10.8208 |
| 2309 | 35 | GOLD BEACH RANGER STA | | 42.24 | 124.25 | 64.1449 |
| 2310 | 35 | GRANTS PASS | | 42.26 | 123.19 | 21.6190 |

**REFERENCE 9**

# SOIL SURVEY OF

# Tulsa County, Oklahoma

United States Department of Agriculture
Soil Conservation Service
In cooperation with
Oklahoma Agricultural Experiment Station

# Contents


| | Page |
|---|---|
| **Index to soil mapping units** | iv |
| **Summary of tables** | v |
| **Foreword** | vii |
| **General nature of the county** | 1 |
| Climate | 1 |
| Settlement and development | 1 |
| Relief and drainage | 2 |
| Natural resources | 2 |
| Transportation and industry | 2 |
| **How this survey was made** | 2 |
| **General soil map for broad land use planning** | 3 |
| Deep to moderately deep, loamy, well drained to somewhat poorly drained soils on uplands | 3 |
| 1. Dennis-Bates association | 3 |
| 2. Okemah-Parsons association | 3 |
| 3. Okay-Kamie association | 4 |
| 4. Apperson-Newtonia-Catoosa association | 4 |
| Deep, loamy or clayey, well drained to poorly drained soils on flood plains | 4 |
| 5. Osage-Wynona association | 4 |
| 6. Choska-Severn association | 4 |
| Shallow to deep, loamy or gravelly to stony loamy, somewhat excessively drained to somewhat poorly drained soils on uplands | 5 |
| 7. Coweta-Eram association | 5 |
| 8. Niotaze-Darnell association | 5 |
| 9. Enders-Hector association | 5 |
| **Soil maps for detailed planning** | 6 |
| Soil descriptions | 6 |
| **Use and management of the soils** | 28 |
| Crops and pasture | 28 |
| Management of soils for tame pasture plants | 30 |
| Yields per acre | 31 |
| Capability classes, subclasses, and capability units | 31 |
| Range | 32 |
| Woodland management and productivity | 33 |
| Woodland understory vegetation | 34 |
| Engineering | 34 |
| Building site development | 35 |
| Sanitary facilities | 36 |
| Construction materials | 37 |
| Water management | 37 |
| Irrigation | 38 |
| Recreation | 39 |
| Wildlife habitat | 39 |
| **Soil properties** | 40 |
| Engineering properties and classification | 41 |
| Physical and chemical properties | 41 |
| Soil and water features | 42 |
| **Classification of the soils** | 43 |
| Soil series and morphology | 43 |
| Apperson series | 43 |
| Bates series | 44 |
| Carytown series | 44 |
| Catoosa series | 44 |
| Choska series | 45 |
| Cleora series | 45 |
| Coweta series | 45 |
| Darnell series | 45 |
| Dennis series | 46 |
| Enders series | 46 |
| Eram series | 47 |
| Glenpool series | 47 |
| Hector series | 47 |
| Kamie series | 48 |
| Kanima series | 48 |
| Kiomatia series | 48 |
| Larton series | 49 |
| Latanier series | 49 |
| Linker series | 50 |
| Lula series | 50 |
| Mason series | 50 |
| Newtonia series | 51 |
| Niotaze series | 51 |
| Okay series | 51 |
| Okemah series | 52 |
| Osage series | 52 |
| Parsons series | 53 |
| Radley series | 53 |
| Severn series | 53 |
| Shidler series | 54 |
| Tullahassee series | 54 |
| Wynona series | 54 |
| Classification | 55 |
| **Formation of the soils** | 55 |
| **References** | 57 |
| **Glossary** | 57 |
| **Illustrations** | 65 |
| **Tables** | 71 |


**Issued December 1977**

After a guide for classifying and naming the soils was worked out, the soil scientists drew the boundaries of the individual soils on aerial photographs. These photographs show woodlands, buildings, field borders, roads, and other details that help in drawing boundaries accurately. The soil map at the back of this publication was prepared from aerial photographs.

The areas shown on a soil map are called soil mapping units. Some mapping units are made up of one kind of soil, others are made up of two or more kinds of soil, and a few have little or no soil material at all. Mapping units are discussed in the section "Soil Maps for Detailed Planning."

While a soil survey is in progress, samples of soils are taken as needed for laboratory measurements and for engineering tests. The soils are field tested, and their interpretatons are modified as necessary during the course of the survey. New interpretations are added to meet local needs, mainly through field observations of different kinds of soil in different uses under different levels of management. Also, data are assembled from other sources, such as test results, records, field experience, and information available from state and local specialists. For example, data on crop yields under defined practices are assembled from farm records and from field or plot experiments on the same kinds of soil.

But only part of a soil survey is done when the soils have been named, described, interpreted, and delineated on aerial photographs and when the laboratory data and other data have been assembled. The mass of detailed information then needs to be organized so that it is readily useful to different groups of users, among them farmers, managers of rangeland and woodland, engineers, planners, developers and builders, homebuyers, and those seeking recreation.

## General Soil Map for Broad Land Use Planning

The general soil map at the back of this publication shows, in color, the soil units for broad land use planning described in this survey. Each soil unit is a unique natural landscape that has a distinct pattern of soils and of relief and drainage features. A unit typically consists of one or more soils of major extent and some soils of minor extent. It is named for the major soils. The kinds of soil in one unit can occur in other soil units, but in a different pattern.

The map provides a broad perspective of the soils and landscapes in the survey area. It provides a basis for comparing the potential of large areas for general kinds of land use. Areas that are generally suitable for certain kinds of farming or other land uses can be identified on the map. Likewise, areas of soils having properties that are distinctly unfavorable for certain land uses can be located.

Because of its small scale, the map does not show the kind of soil at a specific site. Thus, it is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure; the kinds of soils in any one soil unit ordinarily differ from place to place in slope, depth, stoniness, drainage, or other characteristics that affect their management.

Land area makes up about 97 percent of the county and water area makes up about 3 percent of the county.

### Deep to Moderately Deep, Loamy, Well Drained to Somewhat Poorly Drained Soils on Uplands

The four associations in this group make up 58 percent of Tulsa County. The soils are mainly used for field crops, but some areas are used for tame pasture.

#### 1. Dennis-Bates Association

*Deep and moderately deep, very gently sloping through sloping, moderately well drained or well drained, loamy soils that have a loamy or clayey subsoil over clayey sediments or sandstone; on uplands*

This association makes up about 29 percent of the county. About 67 percent is Dennis soils, and 5 percent is Bates soils. The remaining soils include Carytown, Coweta, Kanima, Okemah, Parsons, and Radley soils and Pits and Urban Land.

Dennis soils are deep, very gently sloping through gently sloping, and moderately well drained. They have a loamy surface layer and a loamy and clayey subsoil over clayey sediments. They are slowly permeable.

Bates soils are moderately deep, very gently sloping through sloping, and well drained. They have a loamy surface layer and a loamy subsoil over sandstone. They are moderately permeable.

About 40 percent of this association is cultivated, and 50 percent is in tame pasture. The rest is in native grass and urban areas. The main crops are tame pasture plants, small grains, grain sorghum, and soybeans. Some areas are in native grass.

The main management needs are controlling soil loss through erosion and maintaining soil tilth and fertility. A good cropping system with proper residue management is beneficial for all soils under cultivation. Terracing and adding fertilizer to increase plant residue help protect the soil from erosion.

#### 2. Okemah-Parsons Association

*Deep, nearly level, moderately well drained and somewhat poorly drained, loamy soils that have a loamy or clayey subsoil; on uplands*

This association makes up about 15 percent of the county. About 36 percent is Okemah soils, and 13 percent is Parsons soils. The remaining soils in this association include Carytown, Dennis, and Radley soils and Oil-waste land, Pits, and Urban land.

Okemah soils are deep, nearly level, and moderately well drained. They have a loamy surface layer, the upper part of the subsoil is loamy or clayey, and the lower part of the subsoil is clayey. They are slowly permeable.

Parsons soils are deep, nearly level, and somewhat poorly drained. They have a loamy surface layer and a clayey subsoil. They are very slowly permeable.

About 40 percent of this association is cultivated, and 50 percent is in tame pastures. The rest is in native grass. The main field crops are small grains, grain sorghum, and soybeans.

The main management needs are surface drainage and maintaining soil tilth, water intake, and fertility. A good cropping system with proper residue management is beneficial for these soils. In wet areas draining surfaces by directing the rows is usually sufficient for good plant growth. Excessive tillage needs to be avoided.

### 3. Okay-Kamie Association

*Deep, nearly level through sloping, well drained, sandy or loamy soils that have a loamy subsoil over loamy sediments; on uplands*

This association makes up about 7 percent of the county. About 47 percent is Okay soils, and 32 percent is Kamie soils. The remaining soils include Glenpool, Larton, and Tullahassee soils and Urban land and water areas.

Kamie soils are deep, very gently sloping through sloping, and well drained. They have a sandy or loamy surface layer and a loamy subsoil over loamy sediments. These soils are moderately permeable.

Okay soils are deep, nearly level through gently sloping, and well drained. They have a loamy surface layer and a loamy subsoil over loamy sediments.

Most of these soils are used for tame pastures, small grains, grain sorghum, soybeans, and vegetable crops. A few areas are in native grass or woodland.

The main management needs are controlling erosion and maintaining soil tilth and fertility. The soils can be properly managed by using a good cropping system, by residue management, and by contour farming and terraces on slopes exceeding 1 percent.

### 4. Apperson-Newtonia-Catoosa Association

*Deep, very gently sloping and gently sloping, moderately well drained and well drained, loamy soils that have a loamy and clayey subsoil over loamy or clayey sediments or limestone; on uplands*

This association makes up about 7 percent of the county. About 24 percent is Apperson soils, 21 percent is Newtonia soils, and 8 percent is Catoosa soils. The remaining soils include Dennis, Kanima, Lula, Radley, and Shidler soils and Pits, Rock outcrop, and Urban land.

Apperson soils are deep, very gently sloping or gently sloping, and moderately well drained. They have a loamy surface layer and a loamy or clayey subsoil over limestone. They are slowly permeable.

Newtonia soils are deep, very gently sloping or gently sloping, and well drained. They have a loamy surface layer and a loamy or clayey subsoil over loamy and clayey sediments. They are moderately permeable.

Catoosa soils are moderately deep, very gently sloping through strongly sloping, and well drained. They have a loamy surface layer and a loamy subsoil over limestone. They are moderately permeable.

About 60 percent of this association is in tame pastures. The main field crops are small grains, grain sorghum, and soybeans. Some areas are in native grasses and are used for range or hay.

The main management needs are to maintain soil tilth and fertility and to protect the soil from erosion. Erosion can be reduced by terracing, contour farming, and fertilizing to increase crop residue. Excessive tillage needs to be avoided.

## Deep, Loamy or Clayey, Well Drained to Poorly Drained Soils on Flood Plains

The two associations in this group make up 21 percent of Tulsa County. The soils are mainly used for field crops and tame pastures, but some areas are wooded.

### 5. Osage-Wynona Association

*Deep, nearly level, poorly drained and somewhat poorly drained, loamy or clayey soils that have a loamy or clayey subsoil over loamy or clayey sediments; on flood plains*

This association makes up about 12 percent of the county. About 32 percent is Osage soils, and 29 percent is Wynona soils. The remaining soils include Cleora and Radley soils and Urban land.

Osage soils are deep, nearly level, and poorly drained. They have a clayey surface layer and subsoil. They have very slow permeability, and they are flooded occasionally for very brief periods.

Wynona soils are deep, nearly level, and somewhat poorly drained. The surface layer and upper part of the subsoil are loamy and the lower part of the subsoil is loamy or clayey. They have moderately slow permeability and are flooded occasionally for very brief periods.

Most of these soils are used for tame pasture. About 30 percent of this association is farmed to small grains, grain sorghum, and soybeans. About 30 percent of this association is wooded.

The main concerns of management are flooding, wetness, slow water intake, and soil tilth. Planting of spring crops needs to be delayed until after the common flood periods to prevent excessive loss of soil. These soils respond to a good cropping system, drainage, fertilizers, and residue management.

### 6. Choska-Severn Association

*Deep, nearly level, well drained, loamy soils over loamy and sandy material; on flood plains*

sewage lagoons or playground areas. Soil acidity is a concern on this moderately well suited soil where it is used for uncoated steel or concrete pipe.

This soil is used mostly for tame pastures. In a few areas, the soil is cropped to wheat, grain sorghum, and soybeans.

The main concern in management is protecting the soil from accelerated erosion and maintaining soil fertility and tilth. A cropping system that uses mostly small grains and adequate amounts of fertilizer for maximum residue is needed to control water erosion. Row crops should be avoided in order to prevent excessive loss of soil. Terraces, waterways, and contour farming also protect the soil. Tame pasture grasses and legumes with additions of fertilizer are the best protection against erosion. Capability unit IIIe-2; no woodland suitability subclass; Loamy Prairie range site.

**43—Okemah silt loam, 0 to 1 percent slopes.** This is a nearly level, moderately well drained, slowly permeable soil. It is on broad, smooth uplands.

In a representative profile the surface layer is very dark grayish brown, medium acid silt loam 9 inches thick. The next layer is 11 inches of very dark brown, slightly acid or neutral silt loam. The upper part of the subsoil is 8 inches of very dark grayish brown, mildly alkaline silty clay and 20 inches of coarsely mottled dark yellowish brown, light olive brown, and grayish brown, mildly alkaline silty clay. The lower part of the subsoil is coarsely mottled dark grayish brown, grayish brown, and strong brown, moderately alkaline silty clay.

The thickness of the soil and depth to bedrock is more than 60 inches. Available water capacity in the upper 40 inches of the soil ranges from 6.5 inches to 7.5 inches.

About 15 percent of this mapping unit is included areas of Apperson silty clay loam, Carytown silt loam, and Dennis silt loam; and 20 percent is soils that are similar to Okemah soils except that they do not have coarser mottles in the lower part of the subsoil.

The main concerns of using this soil in urban areas are slow permeability, wetness, high shrink-swell potential, and the texture and acidity of the subsoil. This soil is well suited to lawn grasses, flowers, most shrubs, and garden plants. It has slight limitations for sewage lagoons and for picnic areas or paths and trails in recreational areas. It has moderate limitations for camp and playground areas because of surface wetness. This soil has severe limitations for dwellings, septic tank filter fields, commercial buildings, and roads and streets because of the slow permeability and high shrink-swell potential of the subsoil. The loamy and clayey texture and acidity of the subsoil cause corrosivity on uncoated steel and concrete.

This soil is used mainly for field crops and tame pasture plants. Wheat, soybeans, and grain sorghum are the main crops suited to this soil.

Controlling erosion and maintenance of soil tilth and fertility are the main management concerns. This soil can be used continuously for clean-tilled crops where it is adequately fertilized and crop residue is returned to the soil. Proper management of crop residue helps maintain soil tilth and improve water intake. In a few areas, diversion terraces on long slopes are used to prevent excessive sheet erosion. Capability unit I-2; no woodland suitability subclass; Loamy Prairie range site.

**44—Okemah-Parsons-Carytown complex, 0 to 1 percent slopes.** This is a complex of the moderately well drained, slowly permeable Okemah soil; the somewhat poorly drained, very slowly permeable Parsons soil; and the poorly drained, very slowly permeable Carytown soil. These nearly level soils are on smooth uplands. This complex is 50 percent Okemah soils, 30 percent Parsons soils, and 20 percent Carytown soils.

In a typical profile the Okemah soil has a surface layer of very dark grayish brown, slightly acid silt loam 17 inches thick. The upper 37 inches of the subsoil is very dark grayish brown, slightly acid or neutral silty clay loam. The lower part of the subsoil to a depth of 66 inches is mottled very dark grayish brown and yellowish red, mildly alkaline silty clay.

The thickness of the soil and depth to bedrock is more than 60 inches. Available water capacity in the upper 40 inches of the soil ranges from 6.5 inches to 7.5 inches.

In a typical profile the Parsons soil has a surface layer of very dark grayish brown, slightly acid silt loam 8 inches thick. The subsurface layer is 6 inches of dark grayish brown, slightly acid silt loam. The upper 9 inches of the subsoil is very dark gray, slightly acid clay. The middle part of the subsoil is 29 inches of dark gray and gray, slightly acid clay. The lower part of the subsoil to a depth of 74 inches is gray, mildly alkaline clay.

Thickness of soil and depth to bedrock is more than 60 inches. Available water capacity in the upper 40 inches ranges from 6.0 to 8.5 inches.

In a typical profile the Carytown soil has a surface layer of dark grayish brown, medium acid silt loam 7 inches thick. The upper 7 inches of the subsoil is very dark grayish brown, neutral silty clay. The middle part of the subsoil is 9 inches of dark yellowish brown, slightly acid silty clay and 28 inches of olive brown, slightly acid silty clay. The lower part of the subsoil to a depth of 64 inches is mottled yellowish brown, dark grayish brown, and olive brown, moderately alkaline silty clay.

Thickness of soil and depth to bedrock is more than 60 inches. Available water capacity in the upper 40 inches ranges from 4.5 to 6.0 inches. Sodium content is high.

The main concerns in using these soils in urban areas are wetness, very slow permeability, slope, the clayey and acid subsoil, low strength, and high shrink-swell potential. These soils have slight limitations for sewage lagoons in nearly level areas. Wetness is the most restrictive soil feature for picnic areas, paths, and trails. The soils have moderate limitations for these uses. Proper structural design to compensate for high shrink-swell potential and low strength is especially needed for these soils, which have severe limitations, where they are used for dwellings, commercial buildings, roads, and streets. A large septic tank filter field is needed to compensate for

the very slow permeability and wetness of the Carytown soil. The clayey subsoil is the most restrictive soil feature for trench-type sanitary landfills and concrete or uncoated steel pipes.

The main crops are wheat, grain sorghum, and soybeans. A sizable acreage is in tame pasture plants.

The main concerns of management are wetness, intake of water, and soil tilth and fertility. A good cropping system that includes proper residue management is beneficial to the soil. Fertilizing to increase crop residue maintains or improves soil fertility, soil tilth, and water intake. Row direction for surface drainage in wet areas increases crop production and amounts of residue. Additions of manure and chemical amendments such as gypsum improve soil structure and intake of water on the Carytown silt loam. Excessive tillage needs to be avoided. Capability unit IIs-1; no woodland suitability subclass; Okemah part in Loamy Prairie range site, Parsons part in Claypan Prairie range site, and Carytown part in Shallow Claypan range site.

**45—Osage silty clay.** This is a nearly level, poorly drained, very slowly permeable soil. It is on broad, smooth flood plains entrenched with a few narrow, shallow sloughs. It is flooded occasionally and for very brief periods.

In a typical profile the surface layer is black, medium acid silty clay 18 inches thick. The subsoil is very dark gray, medium acid or slightly acid silty clay.

Thickness of the soil is more than 40 inches, and depth to bedrock is more than 60 inches. Available water capacity in the upper 40 inches of soil ranges from about 5.5 to 7.0 inches.

About 10 percent of this mapping unit is included areas of Wynona silty clay loam and Radley silt loam. Old sloughs make up a small part of the area.

The main concerns for using this soil in urban areas are occasional flooding, clayey profile, wetness, and high shrink-swell potential. Trees, shrubs, most flowers, and some garden plants are well suited to this soil. Proper structural design to compensate for high shrink-swell potential, flooding, and wetness is especially needed on this soil where it is used for dwellings, commercial buildings, roads, and streets. The soil has severe limitations for those uses. Flooding is the main concern in areas where this soil is used for septic tank filter fields, sewage lagoons, and trench-type sanitary landfills. This soil has severe limitations for paths, trails, and camp, picnic, or playground areas.

Most of this soil is used for tame pasture plants. The main field crops are wheat, grain sorghum, and soybeans. A few areas are in woodland.

The main concerns of management in cultivated areas are flooding, surface wetness, slow water intake, and maintenance of soil tilth. Close-grown crops are needed during late fall, winter, and spring to prevent excessive loss of soil during flooding. The planting of spring crops needs to be delayed until after the common flood period. Most crops can be grown continuously where the soil has been fertilized for maximum crop residue. Large amounts of residue help maintain organic matter and contribute to good soil tilth and intake of water. When this soil is wet, tillage or grazing breaks down soil structure and reduces water intake. A drainage system coupled with arranging rows for drainage reduces surface wetness for better crops. Capability unit IIIw-1; woodland suitability subclass 4w; no range site.

**46—Pits.** Pits are mostly in the areas of Shidler, Catoosa, and Lula soils from which limestone fragments have been excavated. A small acreage of Pits is in sandy and loamy areas of Larton, Kamie, and Okay soils, from which base material has been taken for building roads, foundations, and other similar structures.

Pits have no distinct soil profile. They range from about 5 acres to 400 acres in size and from a few feet to 100 feet in depth.

The areas are of limited use for agricultural or urban use. They support little to moderate amounts of vegetation and can be lightly grazed or used for wildlife habitat. Some Pits areas contain water. No capability unit, woodland suitability subclass, or range site.

**47—Radley silt loam.** This is a deep, nearly level, moderately well drained, moderately permeable soil. It is on flood plains that are occasionally flooded for very brief periods.

In a representative profile the surface layer is dark brown, neutral silt loam 10 inches thick. The subsoil is 8 inches of brown, neutral silt loam. The underlying material is brown, neutral silt loam.

Depth to bedrock is more than 60 inches. Available water capacity in the upper 40 inches ranges from 6.5 to 8.5 inches.

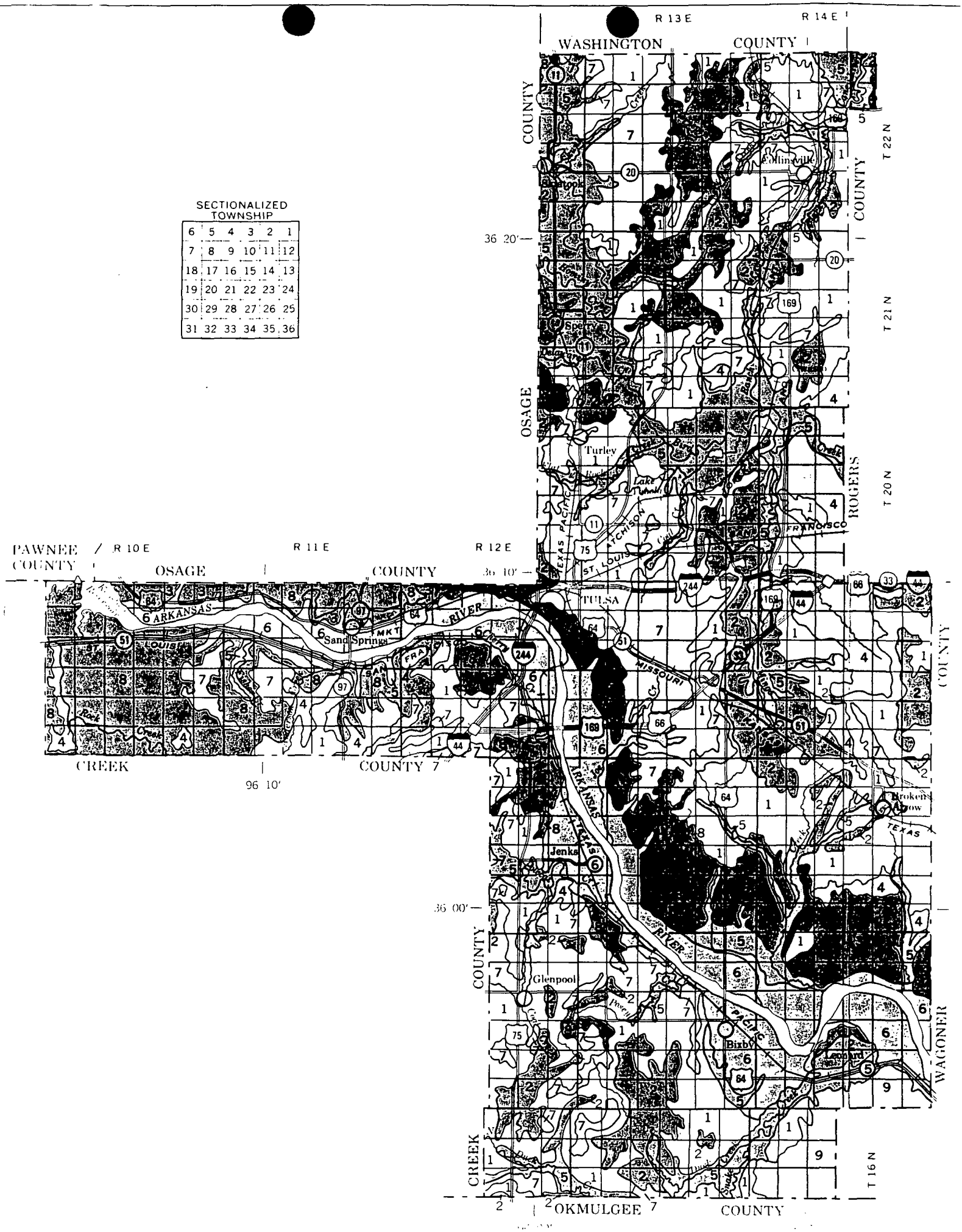
About 10 percent of this mapping unit is included areas of Wynona silty clay loam and Osage silty clay.

The main concern of using this soil in urban areas is flooding. Because of flooding, this soil is moderately well suited to garden plants and has moderate limitations for picnic and playground areas. It has severe limitations for all types of pipes, dwellings, commercial buildings, camp areas, roads or streets, septic tank filter fields, sewage lagoons, and sanitary landfills because of flooding.

This soil is used mostly for wheat, soybeans, grain sorghum, tame pasture plants, and woodland.

The main concerns in management are flooding and soil tilth. Close-growing crops are needed during late fall, winter, and spring to prevent excessive loss of soil during flooding. The planting of spring crops needs to be delayed until after the normal flood period. Most crops that produce large amounts of residue can be grown continuously where the soil is fertilized for maximum crop residue. Maintenance of organic matter content contributes to good soil tilth and intake of water. Minimum tillage needs to be used. Tame pasture or woodland provides the best protection against flooding. Capability unit IIw-1; woodland suitability subclass 2o; no range site.

**48—Radley soils.** These are nearly level, moderately well drained, moderately permeable Radley soils and


SECTIONALIZED TOWNSHIP
6 5 4 3 2 1
7 8 9 10 11 12
18 17 16 15 14 13
19 20 21 22 23 24
30 29 28 27 26 25
31 32 33 34 35 36
R 13 E
R 14 E
WASHINGTON COUNTY
OSAGE COUNTY
ROGERS COUNTY
WAGONER COUNTY
CREEK COUNTY
OKMULGEE COUNTY
PAWNEE COUNTY
R 10 E
R 11 E
R 12 E
T 22 N
T 21 N
T 20 N
T 16 N
36 20'
36 10'
36 00'
96 10'
Collinsville
Turley
Lake Tahoka
TULSA
Sand Springs
Jenks
Glenpool
Bixby
Leonard
Broken Arrow
ARKANSAS RIVER
MISSOURI
TEXAS
ST. LOUIS
SAN FRANCISCO
ATCHISON
TEXAS PACIFIC
MKT
Rock Creek
Cherry Cr.
Snake Creek
Duck Creek
Poseyville
Cook Creek
Bird Creek
Ranch Creek
Cow Creek
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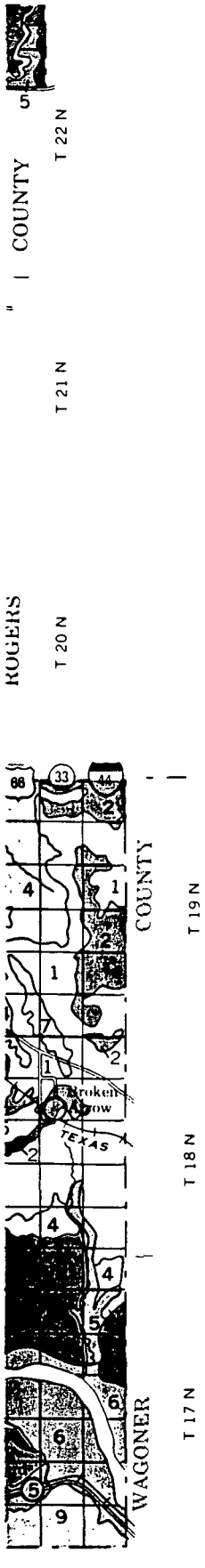



## SOIL ASSOCIATIONS*

DEEP TO MODERATELY DEEP, LOAMY, WELL DRAINED TO SOMEWHAT POORLY DRAINED SOILS ON UPLANDS.

1 — DENNIS–BATES association: Deep and moderately deep, very gently sloping through sloping, moderately well drained or well drained, loamy soils that have a loamy or clayey subsoil over clayey sediments or sandstone; on uplands.

2 — OKEMAH–PARSONS association: Deep, nearly level, moderately well drained and somewhat poorly drained, loamy soils that have a loamy or clayey subsoil; on uplands.

3 — OKAY–KAMIE association: Deep, nearly level through sloping, well drained, sandy or loamy soils that have a loamy subsoil over loamy sediments; on uplands.

4 — APPERSON–NEWTONIA–CATOOSA association: Deep, very gently sloping and gently sloping, moderately well drained and well drained, loamy soils that have a loamy and clayey subsoil over loamy or clayey sediments or limestone; on uplands.

DEEP, LOAMY OR CLAYEY, WELL DRAINED TO POORLY DRAINED SOILS ON FLOOD PLAINS.

5 — OSAGE–WYNONA association: Deep, nearly level, poorly drained and somewhat poorly drained, loamy or clayey soils that have a loamy or clayey subsoil over loamy or clayey sediments; on flood plains.

6 — CHOSKA–SEVERN association: Deep, nearly level, well drained, loamy soils over loamy and sandy material; on flood plains.

SHALLOW TO DEEP, LOAMY OR GRAVELLY TO STONY LOAMY, SOMEWHAT EXCESSIVELY DRAINED TO SOMEWHAT POORLY DRAINED SOILS ON UPLANDS.

7 — COWETA–ERAM association: Shallow to deep, very gently sloping through moderately steep, somewhat excessively drained to moderately well drained, loamy soils that have a loamy or clayey subsoil over shale or sandstone; on uplands.

8 — NIOTAZE–DARNELL association: Moderately deep to shallow, gently sloping through steep, somewhat poorly drained or somewhat excessively drained, gravelly to stony, loamy soils that have a gravelly to stony, clayey or loamy subsoil over shale or sandstone; on uplands.

9 — ENDERS–HECTOR association: Deep to shallow, very gently sloping through steep, well drained, gravelly to stony, loamy soils that have a gravelly to stony, loamy or clayey subsoil over shale or sandstone; on uplands.

*Texture refers to the surface layer unless otherwise noted.

Compiled 1976

***Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.***

N

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
OKLAHOMA AGRICULTURAL EXPERIMENT STATION

# GENERAL SOIL MAP

## TULSA COUNTY, OKLAHOMA

Scale 1:253,440

1 0 1 2 3 4 Miles

## SOIL LEGEND

Soil names followed by the superscript 1/ are broadly defined units. The composition of these units is more variable than that of the others in the survey area but has been controlled well enough to be interpreted for the expected use of the soils.

| SYMBOL | NAME |
|---|---|
| 1 | Apperson silty clay loam, 1 to 3 percent slopes |
| 2 | Apperson silty clay loam, 3 to 5 percent slopes |
| 3 | Bates loam, 1 to 3 percent slopes |
| 4 | Bates-Coweta complex, 3 to 5 percent slopes |
| 5 | Catoosa silt loam, 1 to 3 percent slopes |
| 6 | Catoosa-Rock outcrop complex, 1 to 8 percent slopes |
| 7 | Choska very fine sandy loam |
| 8 | Choska-Severn-Urban land complex |
| 9 | Cleora fine sandy loam |
| 10 | Coweta-Bates complex, 2 to 6 percent slopes |
| 11 | Coweta-Eram-Urban land complex, 3 to 12 percent slopes |
| 12 | Dennis silt loam, 1 to 3 percent slopes |
| 13 | Dennis silt loam, 3 to 5 percent slopes |
| 14 | Dennis silt loam, 2 to 5 percent slopes, eroded |
| 15 | Dennis-Carytown complex, 1 to 3 percent slopes |
| 16 | Dennis-Radley complex, 0 to 12 percent slopes |
| 17 | Dennis-Urban land complex, 0 to 5 percent slopes |
| 18 | Enders-Hector complex, 5 to 30 percent slopes |
| 19 | Eram silty clay loam, 3 to 5 percent slopes |
| 20 | Eram-Coweta complex, 5 to 15 percent slopes |
| 21 | Glenpool loamy fine sand, 3 to 15 percent slopes |
| 22 | Hector-Linker complex, 1 to 5 percent slopes |
| 23 | Kamie loamy fine sand, 3 to 8 percent slopes |
| 24 | Kamie fine sandy loam, 1 to 3 percent slopes |
| 25 | Kamie-Urban land complex, 1 to 8 percent slopes |
| 26 | Kanima soils, 3 to 50 percent slopes 1/ |
| 27 | Kiomatia soils 1/ |
| 28 | Larton-Glenpool complex, 0 to 3 percent slopes |
| 29 | Latanier clay |
| 30 | Lula silt loam, 1 to 3 percent slopes |
| 31 | Mason silt loam |
| 32 | Newtonia silt loam, 1 to 3 percent slopes |
| 33 | Newtonia silt loam, 3 to 5 percent slopes |
| 34 | Niotaze-Darnell complex, 3 to 15 percent slopes |
| 35 | Niotaze-Darnell complex, 15 to 25 percent slopes |
| 36 | Niotaze-Darnell complex, 25 to 45 percent slopes |
| 37 | Niotaze-Darnell-Urban land complex, 3 to 25 percent slopes |
| 38 | Oil-waste land |
| 39 | Okay loam, 0 to 1 percent slopes |
| 40 | Okay loam, 1 to 3 percent slopes |
| 41 | Okay loam, 3 to 5 percent slopes |
| 42 | Okay loam, 2 to 5 percent slopes, eroded |
| 43 | Okemah silt loam, 0 to 1 percent slopes |
| 44 | Okemah-Parsons-Carytown complex, 0 to 1 percent slopes |
| 45 | Osage silty clay |
| 46 | Pits |
| 47 | Radley silt loam |
| 48 | Radley soils 1/ |
| 49 | Severn very fine sandy loam |
| 50 | Shidler-Rock outcrop complex, 1 to 12 percent slopes |
| 51 | Tullahassee fine sandy loam |
| 52 | Urban land |
| 53 | Wynona silty clay loam |
| 54 | Wynona-Urban land complex |

## CULTUR

BOUNDARIES

National, state or p

County or parish

Minor civil division

Reservation (nation
state forest or pa
and large airport

Land grant

Limit of soil survey

Field sheet matchli

AD HOC BOUNDARY

Small airport, airfie
cemetery, or floo

STATE COORDINATE

LAND DIVISION COR
(sections and land g

ROADS

Divided (median st
if scale permits)

Other roads

Trail

ROAD EMBLEMS & D

Interstate

Federal

State

County, farm or ra

RAILROAD

POWER TRANSMISSI
(normally not show

PIPE LINE
(normally not show

FENCE
(normally not show

LEVEES

Without road

With road

With railroad

DAMS

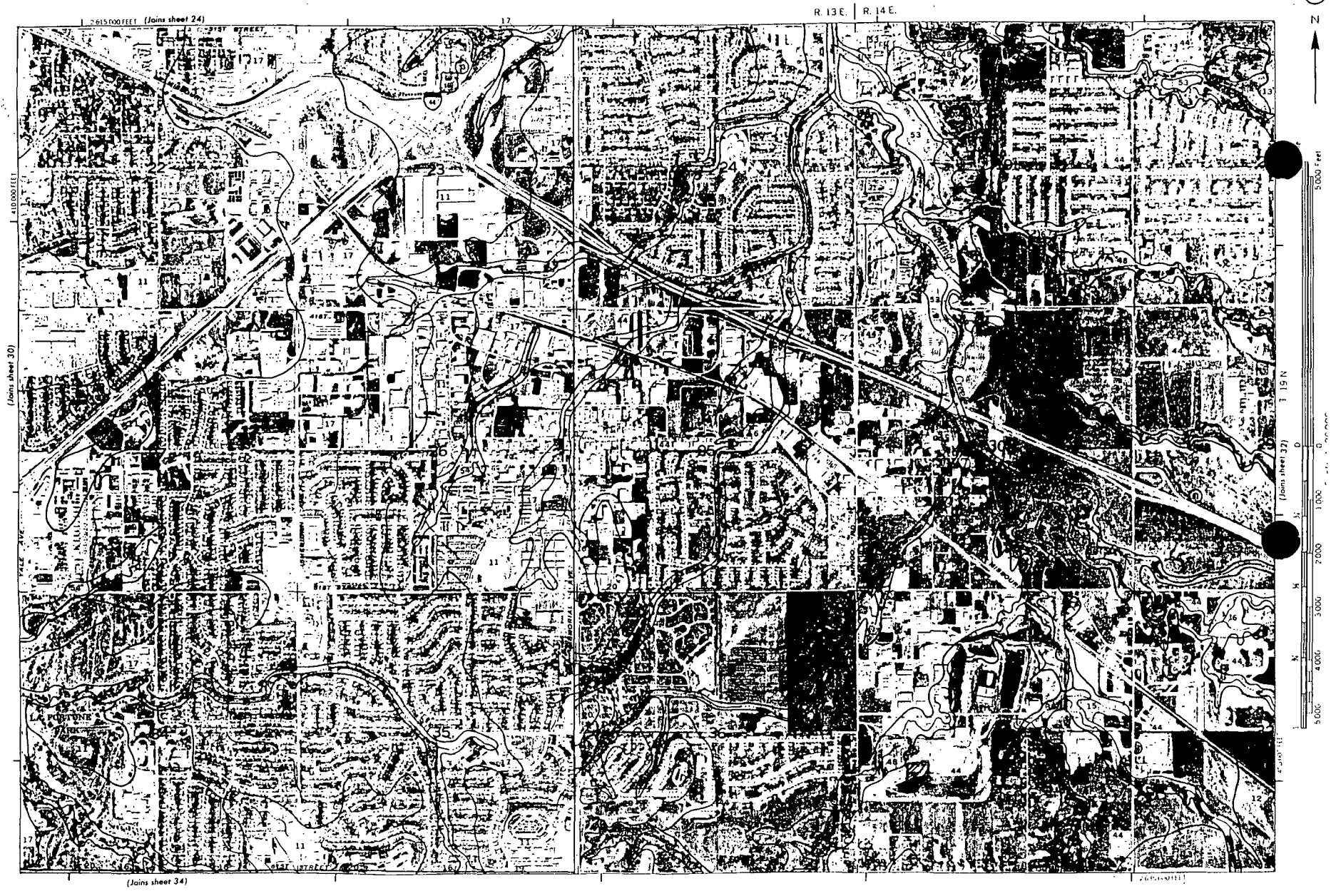
Large (to scale)

Medium or small

PITS

Gravel pit

Mine or quarry

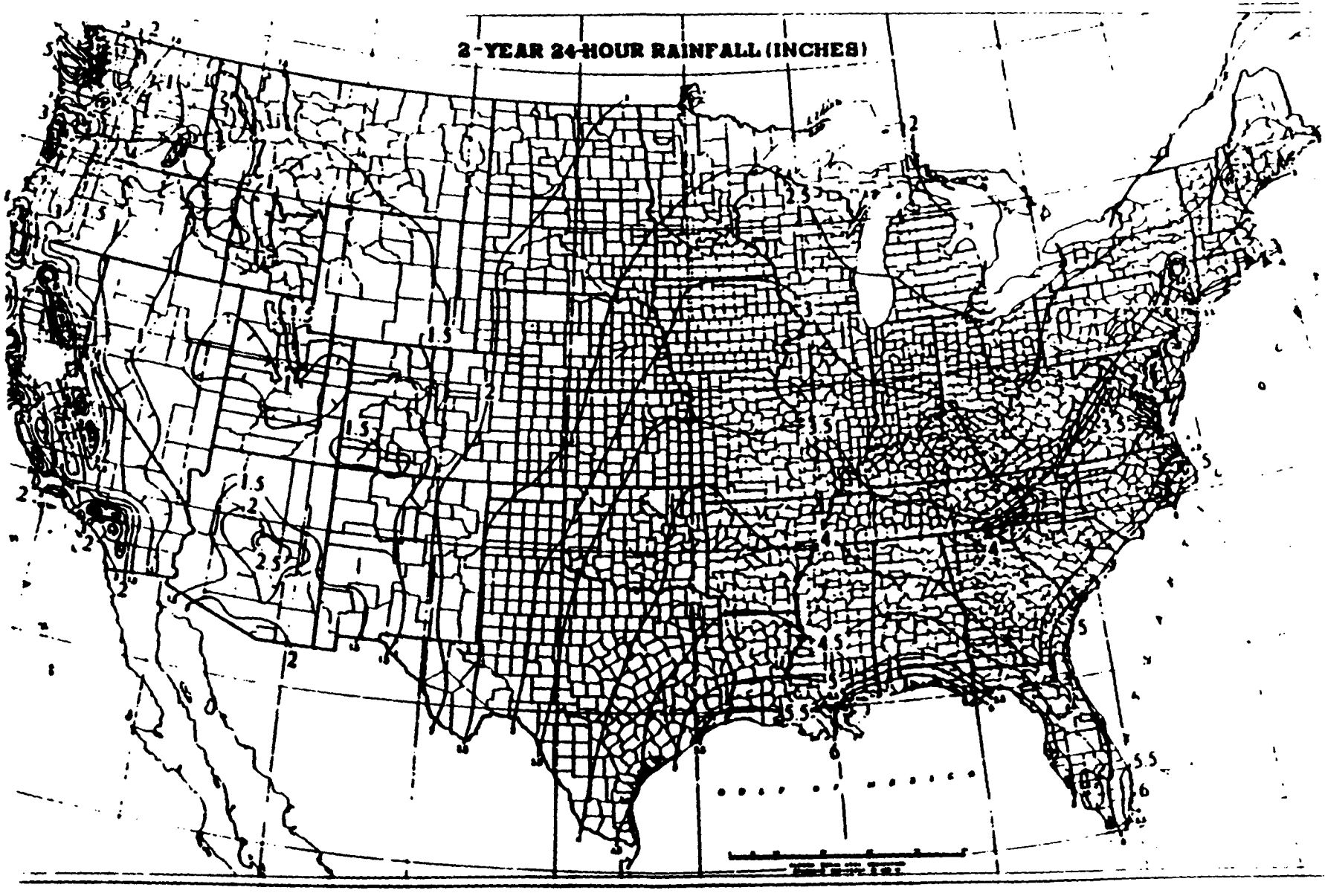



TULSA COUNTY, OKLAHOMA NO. 30

TULSA COUNTY, OKLAHOMA NO. 31

**REFERENCE 10**

Herschfield, D.M., 1961, Rainfall Frequency Atlas of the United States. U.S. Weather Bureau Technical Paper No. 40.


2-YEAR 24-HOUR RAINFALL (INCHES)

# REFERENCE 11

# RECORD OF COMMUNICATION

**Reference 11**

**TYPE:** Meeting **DATE:** 10/12/93 **TIME:** 11:50 a.m.

**TO:** Charles Ochinegro
Plant Manager
Thomas & Betts Corporation

**FROM:** Gregory Hoffmann, ARCS Task Manager, ICF Technology, Inc.
(214) 979-3931

**SUBJECT:** Site Information for Thomas & Betts Corporation.

**SUMMARY OF COMMUNICATION:**

The Reconnaissance Team arrived at Mr. Ochinegro's office and asked for information about the site. Mr. Ochinegro told them the following; the site is 5 acres and the facility is 104,000 square feet. The building has been there since March 1977, prior to that the site was vacant. They are an electrical connector and terminal manufacturer. They have 120 employees at the facility. They do plating to some of the components.

They have an Industrial Wastewater pretreatment facility at the site with a discharge to Tulsa's sanitary sewer system via a seperate sewer line from the facility. The city of Tulsa monitors the discharge on a random basis, Thomas & Betts also monitors the discharge periodically. They have a dry sludge storage area for the wastes from the pretreatment facility. The sludge stays inside the facility for less then 90 days prior to being recycled by World Resources Company. They gave us copies of the manifests for the first 9 months of 1993. The total volume for the nine month period was 5.1 tons which becomes an average of 6.8 tons per year.

Thomas & Betts has two solvent storage units used to clean tool and parts. These units are contracted with Safety-Kleen who change out the solvents within 12 week intervals. They gave us copies of the manifests for the first 9 months of 1993. All of the volumes were converted gallons by dividing the number of pounds by 8 per gallon. The total gallons for 9 months were 359, or 39.89 gallons per month. 39.89 multiplied by 12 yielded 478 gallons per year.

The facility also uses machine oil and printing inks as part of its operation. These items are stored in a locked, fenced cage inside the manufacturing area.

They have two dumpsters, one for wood products only and one for paper only. The wood is disposed of in a landfill and the paper is incinerated. Both dumpsters are contracted with BFI.

# REFERENCE 12

State Board of Health

[illegible] PITENECK, D.D.S., PRESIDENT
[illegible] McCULLOUGH, D.O., VICE PRESIDENT
HAROLD A. TOAZ, SECRETARY
GLEN L. BERKENBILE, M.D.
WALLACE BYRD, M.D.
THOMAS DONICA, M.D.
ARNOLD HELVEY
EUGENE A. OWENS, M.D.
W.A. "TATE" TAYLOR

Oklahoma
State Department of Health
Northeast 10th Street & Stonewall
Post Office Box 53551
Oklahoma City, Oklahoma 73105

Commissioner
JOAN K. LEAVITT, M.D.

RECEIVED
APR 7 1978
T&B/THOMAS
& BETTS

April 6, 1978

Mr. W. A. Pattyson
Manager of Plant Operation
Thomas & Betts Company
9932 E. 58th Street South
Tulsa, Oklahoma 74145

Re: Operating Permits 77-009-0, 77-010-0, 77-011-0, 77-012-0,
77-013-0, 77-014-0, 77-015-0, 77-016-0, 77-017-0
THOMAS & BETTS COMPANY
Tulsa, Oklahoma
Electrical Parts Manufacturing Plant

Dear Mr. Pattyson:

Enclosed are the operating permits for the referenced facility as detailed in the specifications and data of the permit applications, and inspected February 14, 1978 by Air Quality Service personnel.

Please note that these permits are issued subject to certain standard conditions. If there are any questions, please feel free to contact us.

Very truly yours,

Grant C. Marburger

Grant C. Marburger
Head, Permit Section
AIR QUALITY SERVICE

GCM:mlm

Enclsrs.

cc Roger Randolph
Environmental Protection
Tulsa City-County Health Dept.
cc Richard Thompson, M.E.S.,R.P.S.
District Sanitarian

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-009-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the plating facility identified as System A as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Brite Dip 14420 CFM
4000 CFM Scrub

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-010-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the tin plating facility identified as System B as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Matt Tin Rack 16,302 CFM

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-011-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the tin plating facility identified as System C as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Acid Tin Rack 5700 CFM

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 1978 Permit No. 77-012-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the plating facility identified as System D as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Auto Line 13,274 CFM

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

M.D. Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-013-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the dye coating facility identified as System E as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Lacquer Operation 3270 CFM

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-014-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the plating facility identified as System F as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Strip Plating Line 6900 CFM

Chief, Air Quality Service

Deputy Commissioner for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-015-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the annealing facility identified as System G as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Aluminum Annealing 2268 cfm

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 1978 Permit No. 77-016-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the vapor degreasing facility identified as System H as specified in the permit application data

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

Degreaser 1200 CFM

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# PERMIT

AIR QUALITY SERVICE
ENVIRONMENTAL HEALTH SERVICES
OKLAHOMA STATE DEPARTMENT OF HEALTH
OKLAHOMA CITY, OKLAHOMA 73105

Date March 31, 19 78 Permit No. 77-017-0

The Thomas & Betts Company, Tulsa, Oklahoma, having complied with the requirements of the law, is hereby granted permission to operate the boilers as specified in the permit application

subject to the standard provisions listed on page two (2) ~~and the following special conditions:~~

1140 CFM

Chief, Air Quality Service

Deputy Commissioner
for Environmental Health Services

Commissioner of Health

ODH Form No. 885

# REFERENCE 13

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

ENVIRONMENTAL PROTECTION AGENCY

# GENERAL INFORMATION

*Consolidated Permits Program*

*(Read the "General Instructions" before starting.)*

**I. EPA I.D. NUMBER**

| S | | T/A | C |
|---|---|---|---|
| F | OKD070038823 | 3 | D |

**LABEL ITEMS**

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

**GENERAL INSTRUCTIONS**

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

## II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

| SPECIFIC QUESTIONS | MARK "X" YES | NO | FORM ATTACHED |
|---|---|---|---|
| A. Is this a facility of a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | X | |
| B. Does or will this facility (*either existing or proposed*) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | X | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | | X | |
| D. Is this a proposed facility (*other than those described in A or B above*) which will result in a discharge to waters of the U.S.? (FORM 2D) | | X | |
| E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3) | X | | |
| F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | X | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | X | |
| H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Fresch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | X | |
| I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |
| J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |

## III. NAME OF FACILITY

1 SKIP T&B/THOMAS & BETTS COMPANY

## IV. FACILITY CONTACT

| A. NAME & TITLE (*last, first, & title*) | B. PHONE (*area code & no.*) |
|---|---|
| 2 STEINKE, GARY SUPVR, PLATING | 918 252 0466 |

## V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 9932 EAST 58TH STREET SOUTH

| B. CITY OR TOWN | C. STATE | D. ZIP CODE |
|---|---|---|
| 4 TULSA | OK | 74145 |

## VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 9932 EAST 58TH STREET SOUTH

B. COUNTY NAME

TULSA

| C. CITY OR TOWN | D. STATE | E. ZIP CODE | F. COUNTY CODE (*if known*) |
|---|---|---|---|
| 6 TULSA | OK | 74145 | |

RECEIVED NOV 13 1980



CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

## VII. SIC CODES (4-digit, in order of priority)

| A. FIRST | B. SECOND | C. THIRD | D. FOURTH |
|---|---|---|---|
| 3471 Electroplating, Plating | 3644 Non-current carrying wire devices | 3643 Current carrying wiring devices | |

## VIII. OPERATOR INFORMATION

A. NAME: T & B / THOMAS & BETTS COMPANY

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL; M = PUBLIC (other than federal or state); S = STATE; O = OTHER (specify); P = PRIVATE
Answer: P

D. PHONE (area code & no.): A 918 252 0466

E. STREET OR P.O. BOX: 9932 EAST 58TH STREET SOUTH

F. CITY OR TOWN: TULSA

G. STATE: OK

H. ZIP CODE: 74145

## IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

## X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): N

D. PSD (Air Emissions from Proposed Sources): P

B. UIC (Underground Injection of Fluids): U

E. OTHER (specify): S049T308A (specify) Discharge Permit to IDP 114A POTW

C. RCRA (Hazardous Wastes): R

E. OTHER (specify): 7203 (specify) ClWDP Air Quality

## XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

F9: A/50

## XII. NATURE OF BUSINESS (provide a brief description)

Manufacture of electrical connectors and terminals

F9: A/51

## XIII. CERTIFICATION (see instructions)

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| A. NAME & OFFICIAL TITLE (type or print) | B. SIGNATURE | C. DATE SIGNED |
|---|---|---|
| John R. Weber, Plant Manager | John R. Weber | Nov. 7, 1980 |

COMMENTS FOR OFFICIAL USE ONLY

Please print or type in the unshaded areas only
*(fill–in areas are spaced for elite type, i.e., 12 characters/inch).*

Form Approved OMB No. 158-S80004 483

FORM 3 RCRA

EPA

ENVIRONMENTAL PROTECTION AGENCY

# HAZARDOUS WASTE PERMIT APPLICATION

*Consolidated Permits Program*

*(This information is required under Section 3005 of RCRA.)*

**I. EPA I.D. NUMBER**

| S | | | | | | | | | | | | | T/A | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | K | D | 0 | 7 | 0 | 0 | 3 | 8 | 8 | 2 | 3 | 3 | 1 |

**FOR OFFICIAL USE ONLY**

| APPLICATION APPROVED | DATE RECEIVED (yr., mo., & day) | COMMENTS |
|---|---|---|
| A (23) | 801113 (24 - 29) | |

## II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

**A. FIRST APPLICATION** *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)* (71)

NO [X] 2. NEW FACILITY *(Complete item below.)* (71)

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

| C | YR. | MO. | DAY |
|---|---|---|---|
| 8 (15) | 77 (73 74) | 03 (75 76) | 01 (77 78) |

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

| YR. | MO. | DAY |
|---|---|---|
| 77 (73 74) | 03 (75 76) | 01 (77 78) |

**B. REVISED APPLICATION** *(place an "X" below and complete Item I above)*

[X] 1. FACILITY HAS INTERIM STATUS (72)

[ ] 2. FACILITY HAS A RCRA PERMIT (72)

## III. PROCESSES – CODES AND DESIGN CAPACITIES

**A. PROCESS CODE** – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code*(s)* in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C).*

**B. PROCESS DESIGN CAPACITY** – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

| PROCESS | PROCESS CODE | APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY |
|---|---|---|
| **Storage:** | | |
| CONTAINER *(barrel, drum, etc.)* | S01 | GALLONS OR LITERS |
| TANK | S02 | GALLONS OR LITERS |
| WASTE PILE | S03 | CUBIC YARDS OR CUBIC METERS |
| SURFACE IMPOUNDMENT | S04 | GALLONS OR LITERS |
| **Disposal:** | | |
| INJECTION WELL | D79 | GALLONS OR LITERS |
| LANDFILL | D80 | ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER |
| LAND APPLICATION | D81 | ACRES OR HECTARES |
| OCEAN DISPOSAL | D82 | GALLONS PER DAY OR LITERS PER DAY |
| SURFACE IMPOUNDMENT | D83 | GALLONS OR LITERS |

| PROCESS | PROCESS CODE | APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY |
|---|---|---|
| **Treatment:** | | |
| TANK | T01 | GALLONS PER DAY OR LITERS PER DAY |
| SURFACE IMPOUNDMENT | T02 | GALLONS PER DAY OR LITERS PER DAY |
| INCINERATOR | T03 | TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR |
| OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)* | T04 | GALLONS PER DAY OR LITERS PER DAY |

| UNIT OF MEASURE | UNIT OF MEASURE CODE | UNIT OF MEASURE | UNIT OF MEASURE CODE | UNIT OF MEASURE | UNIT OF MEASURE CODE |
|---|---|---|---|---|---|
| GALLONS | G | LITERS PER DAY | V | ACRE-FEET | A |
| LITERS | L | TONS PER HOUR | D | HECTARE-METER | F |
| CUBIC YARDS | Y | METRIC TONS PER HOUR | W | ACRES | B |
| CUBIC METERS | C | GALLONS PER HOUR | E | HECTARES | Q |
| GALLONS PER DAY | U | LITERS PER HOUR | H | | |

**EXAMPLE FOR COMPLETING ITEM III** *(shown in line numbers X-1 and X-2 below):* A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

| S | | T/A | C |
|---|---|---|---|
| C | DUP | | 1 |

| LINE NUMBER | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) | FOR OFFICIAL USE ONLY | LINE NUMBER | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY 1. AMOUNT | B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) | FOR OFFICIAL USE ONLY |
|---|---|---|---|---|---|---|---|---|---|
| ~~X-1~~ | ~~S 0 2~~ | ~~600~~ | ~~G~~ | | 5 | | | | |
| ~~X-2~~ | ~~T 0 3~~ | ~~20~~ | ~~E~~ | | 6 | | | | |
| 1 | S 0 1 | 5400.000 | G | | 7 | | | | |
| 2 | T 0 1 | 266,800.000 | V | | 8 | | | | |
| 3 | | | | | 9 | | | | |
| 4 | | | | | 10 | | | | |

Continued from the front.

## III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

## IV. DESCRIPTION OF HAZARDOUS WASTES

**A. EPA HAZARDOUS WASTE NUMBER** – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

**B. ESTIMATED ANNUAL QUANTITY** – For each **listed waste** entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each **characteristic** or **toxic contaminant** entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

**C. UNIT OF MEASURE** – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

| ENGLISH UNIT OF MEASURE | CODE | METRIC UNIT OF MEASURE | CODE |
|---|---|---|---|
| POUNDS | P | KILOGRAMS | K |
| TONS | T | METRIC TONS | M |

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

**D. PROCESSES**

1. PROCESS CODES:
   **For listed hazardous waste:** For each **listed** hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   **For non–listed hazardous wastes:** For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate **all** the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   **Note:** Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER** – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING ITEM IV** *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

| LINE NO. | A. EPA HAZARD. WASTE NO. *(enter code)* | B. ESTIMATED ANNUAL QUANTITY OF WASTE | C. UNIT OF MEASURE *(enter code)* | D. PROCESSES 1. PROCESS CODES *(enter)* | D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))* |
|---|---|---|---|---|---|
| ~~X-1~~ | ~~K 0 5 4~~ | ~~900~~ | ~~P~~ | ~~T 0 3 D 8 0~~ | |
| ~~X-2~~ | ~~D 0 0 2~~ | ~~400~~ | ~~P~~ | ~~T 0 3 D 8 0~~ | |
| ~~X-3~~ | ~~D 0 0 1~~ | ~~100~~ | ~~P~~ | ~~T 0 3 D 8 0~~ | |
| ~~X-4~~ | ~~D 0 0 2~~ | | | | *included with above* |



CONTINUE ON PAGE 3

Continued from page 2.
NOTE: Photocopy this page before completing [illegible] have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

| EPA I.D. NUMBER (enter from page 1) | FOR OFFICIAL USE ONLY |
|---|---|
| W O K D 0 7 0 0 3 8 8 2 3 3 1 | W DUP 2 DUP |

## IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

| LINE NO. | A. EPA HAZARD. WASTE NO. (enter code) | B. ESTIMATED ANNUAL QUANTITY OF WASTE | C. UNIT OF MEASURE (enter code) | D. PROCESSES 1. PROCESS CODES (enter) | D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1)) |
|---|---|---|---|---|---|
| 20-22 A01 | F001 | 32 432.400 ~~8580~~ | ~~G~~ K | S01 | Incineration by Energy Systems Co |
| A01 | F002 | included with above | ~~G~~ K | S01 | Eldorado, Ark., MPDES Applicatio Pending |
| A03 | F006 | 175,500.000 | P | S01 | 40% sold for reclamation of tin metal |
| A03 | F007 | included with above | P | S01 | 10% disposed of by U.S. Pollution Control EPA1D #OKD065438376 |
| A03 | F008 | included with above | P | S01 | Analysis of this material by Perkins International indicated |
| A03 | F009 | included with above | P | S01 | 75% moisture content |
| 7 | P029 | -0- .000 | | | Container liner falls under Sec. 261.5 (5) |
| 8 | P030 | -0- .000 | | | Container triple rinsed--annual co sumption rate yields 1 container p yea |
| 9 | P104 | -0- .000 | | | Container triple rinsed per 261.33. Also 261.5 (4) |
| 10 | P106 | -0- .000 | | | Container triple rinsed--annual co sumption rate for processes yields one empty container per year |
| 11 | ~~U220~~ | ~~No longer~~ | | ~~in use~~ | |
| 12 | U226 | -0- .000 | | | Per Sec. 261.5 (3), 261.33(c)(i) |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
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| 23 | | | | | |
| 24 | | | | | |
| 25 | | | | | |
| 26 | | | | | |

Continued from the front.

## IV. DESCRIPTION OF HAZARDOUS WASTE (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. *(enter from page 1)*

| S | | | | | | | | | | | | | T/A | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | O | K | D | 0 | 7 | 0 | 0 | 3 | 8 | 8 | 2 | 3 | 3 | 6 |

## V. FACILITY DRAWING

All **existing** facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).* F6:55

## VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).* A F6:56

## VII. FACILITY GEOGRAPHIC LOCATION

| LATITUDE *(degrees, minutes, & seconds)* | LONGITUDE *(degrees, minutes, & seconds)* |
|---|---|
| 36 04 465 | 095 51 577 |

## VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

| 1. NAME OF FACILITY'S LEGAL OWNER | 2. PHONE NO. *(area code & no.)* |
|---|---|
| E | |

| 3. STREET OR P.O. BOX | 4. CITY OR TOWN | 5. ST. | 6. ZIP CODE |
|---|---|---|---|
| F | G | | |

## IX. OWNER CERTIFICATION

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| A. NAME *(print or type)* | B. SIGNATURE | C. DATE SIGNED |
|---|---|---|
| John R. Weber | John R. Weber | November 7, 1980 |

## X. OPERATOR CERTIFICATION

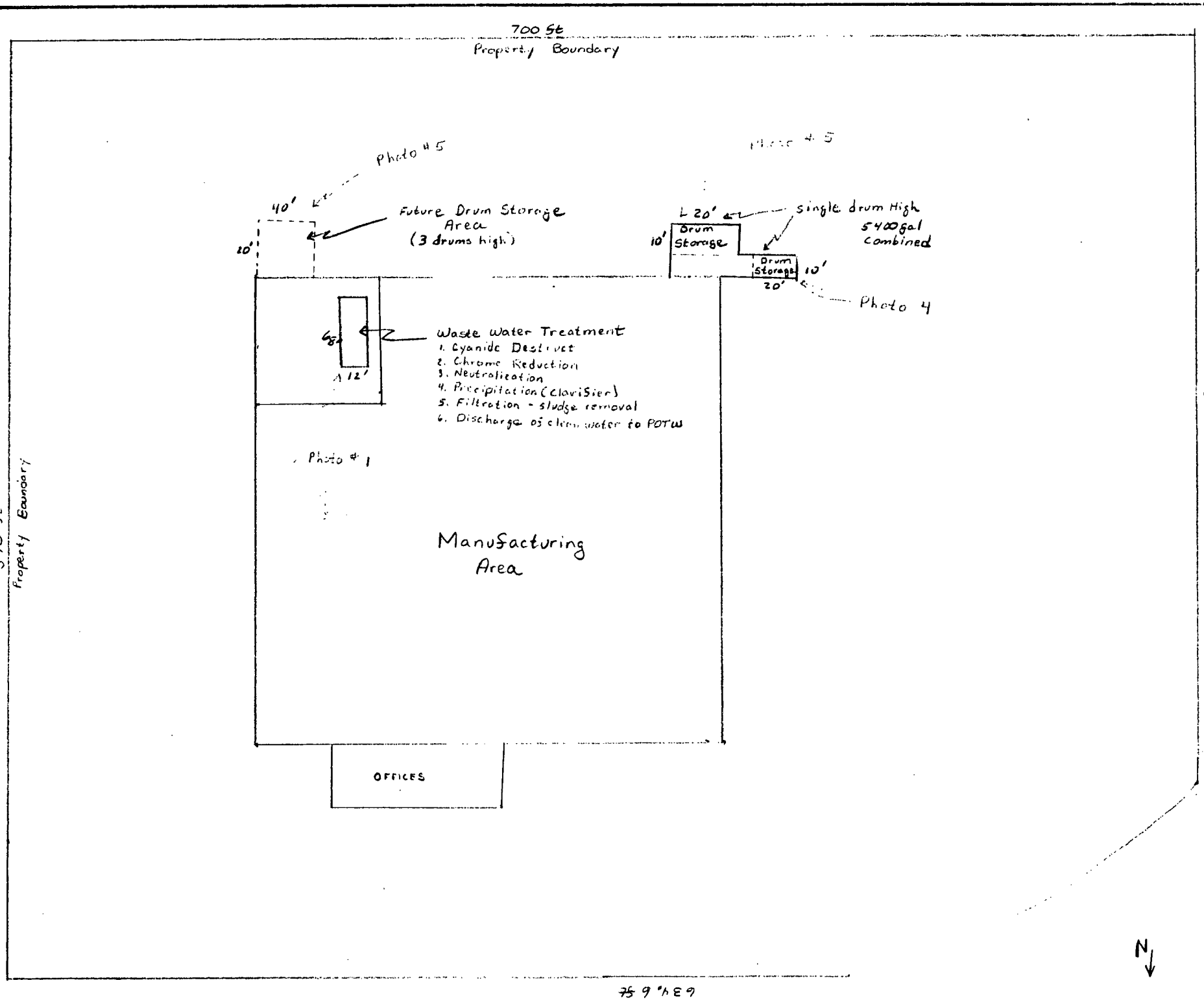
*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| A. NAME *(print or type)* | B. SIGNATURE | C. DATE SIGNED |
|---|---|---|
| John R. Weber | John R. Weber | November 7, 1980 |

 CONTINUE ON PAGE 5

Continued from page 4.

## V. FACILITY DRAWING (see page 4)






Form Approved OMB No. 158-S80004

# REFERENCE 14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

SEP 1 1982

Thomas & Betts Company
Attn: Gary Steinke,
Supervisor Plating
9932 East 58th Street South
Tulsa, Oklahoma 74145

Re: EPA ID Number: OKD 07 003 8823
Facility Location: 9932 E. 58th Street
Tulsa, Oklahoma

This is to acknowledge that the Environmental Protection Agency has completed processing the information submitted in your Part A Hazardous Waste Permit Application. It is the agency's opinion, based on the assumption that the information submitted is complete and accurate, that you as an owner or operator of a hazardous waste management facility, have met the requirements of Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) for interim status. EPA has not verified the information submitted. If it is determined that the information is incomplete or inaccurate, you may be asked to provide additional information or in certain circumstances it may be determined that you do not qualify for interim status. In addition, this notice does not preclude a citizen from taking legal action under the provisions of Section 7002 of RCRA.

A facility not meeting the requirements for interim status under Section 3005 of RCRA may be required to close until such time as a Hazardous Waste Permit is issued. Interim status may also be terminated, according to procedures in 40 CFR, Part 124, if the owner or operator fails to furnish additional information which EPA requests in order to process a permit application.

As an owner or operator of a hazardous waste management facility, you are required to comply with the interim status standards as prescribed in 40 CFR, Parts 122 and 265, or with state rules and regulations in those states which have been authorized under Section 3006 of RCRA. In addition, you are reminded that operating under interim status does not relieve you from the need to comply with all applicable state and local requirements.

The enclosure to this letter identifies the processes your facility may use, their design capacities and the types of waste your facility may accept during interim status. This information was obtained from Part "A" of the Permit Application. If you wish to handle new wastes, change processes, increase the design capacity of existing processes, or change ownership or operational control of the facility, you may do so only as provided in 40 CFR, Sections 122.22 and 122.23.

If you have any questions concerning this letter, please contact Jack Paul at 214/767-9400 or write Environmental Protection Agency, Mail Code 6AW-HE 1201 Elm Street, Dallas, Texas. 75270.

Sincerely yours,

Allyn M Davis

Allyn Davis
Director, Air and Waste Management Division (6AW)

Enclosure

cc: Oklahoma State Department
of Health

CONDITIONS OF OPERATION DURING
INTERIM STATUS

Date prepared: SEP 1 1982

The information shown below is based solely on the information that the owner and operator of this facility submitted in Part A of the Hazardous Waste Permit Application. This is not a determination by EPA that this facility is an environmentally acceptable facility for treating, storing or disposing of the hazardous wastes listed below.

I. Facility name, location and EPA identification number:

Name: Thomas & Betts Company

Location: 9932 East 58th Street South

Tulsa, Oklahoma 74145

EPA ID No: OKD 07 003 8823

II. EPA considers the following to be the owner or operator of the facility and therefore the person(s) who must comply with the requirements set forth in 40 CFR Parts 122 and 265:

Owner's name: T&B/Thomas & Betts Company

Operator's name: T&B/Thomas & Betts Company

III. During the period of interim status, the facility may use only the following processes for treating, storing or disposing of hazardous waste, up to the design capacities that are indicated:

| Process Code | Design Capacity Amount | Unit of Measure |
|---|---|---|
| T01 | 266,800. | Liters per day |
| S01 | 5,400. | Gallons |
| | | |
| | | |
| | | |

IV. During the period of interim status, the facility may handle only the hazardous wastes with the following EPA Hazardous Waste Numbers, and/or solid wastes exhibiting hazardous characteristics with the following EPA Hazardous Waste Numbers:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| F001 | F002 | F006 | F007 | F008 | F009 | P029 | P030 | P104 | P106 | U220 |
| U226 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

EPA Region VI, Dallas, TX 75270
(214) 767-2765

Part A, Permit Process --- Internal Checklist

ID Number OKD 07-003-8823 Inst Name Thomas + Betts Company

| Refer to Form No: | PHASE ONE<br>Interim Regulatory Requirements | Indicate by your initials: Yes | No | Valid Prmlg Date? |
|---|---|---|---|---|
| 1 | T/S/D Facility? (If No, return to respondent.) | GT | | |
| 3 | Form 1 received? | GT | | |
| 1 | Form 3 received? | GT | | |
| 1 & 3 | Postmarked on or before November 19, 1980? | GT | | |
| 3 | Date of operation entered? | GT | | |
| 3 | Date of operation on or before November 19, 1980? | GT | | |
| Notif. record | Notifier? | GT | | |
| " | Notified on or before August 18, 1980? | GT | | |
| 1 | Form 1, XIII B signed? | GT | | |
| 3 | Form 3, IX B Signed? | GT | | |

(If all ten items above are initialed in the Yes column, generate Interim Status Acknowledgement and indicate the trigger date here: _____)

| | PHASE TWO | | |
|---|---|---|---|
| 1 | Unsure if regulated or non-regulated? | | |
| 3 | New facility? | | |

1 & 3 Core items missing? If Yes, indicate which items:

Facility name___; location___; mail address___; operator info___;

certification___; process info___; waste info___; owner___; sigs___.

PHASE THREE

1 & 3 Non-core items missing? If Yes, indicate which items:

Maps___; photos___; drawings___; lat/long___.

Other observations and comments:

Received Date Stamp

~~80-11-13~~

80-11-13

(Stamp forms also)

Log out/Log in on reverse side.

# REFERENCE 15

T&B / Thomas & Betts

REPLY TO:
T&B/THOMAS & BETTS
9932 East 58th Street, South
Tulsa, Oklahoma 74145
(918) 252-0466

RECEIVED
APR 1 1983
Waste Management Service

APR 11 1983
HAZARDOUS MATERIALS BRANCH

Mr. Donald A. Hensch, P.E.
Oklahoma State Department of Health
1000 Northeast 10th St.
P.O. Box 53551
Oklahoma City, Ok 73152

Dear Mr. Hensch:

At this time I am requesting a status change from Storage Facility (Permit Number IS72905) to Generator only.

All waste handled at this site is the result of generation by inside operations, and disposal within 90-day periods poses no problem to the operation.

The use of a Waste Gondola provided by USPCI for the Waste Water Treatment Sludge cannot be filled within 90 days, however. It is more economical to ship a partially full container as opposed to meeting the financial requirements of maintaining storage site status.

In order to comply with closure as a storage site, all material in storage was removed from the facility on March 21, 1983.

Please find attached copies of our monthly reports, generation record, manifests and professional engineers statement that all material has been removed. In addition copies of letters to USPCI and Ashland Chemical Company are attached, requesting scheduled 90-day pickups of material.

Also, please find attached the latest sludge analysis, indicating the material is non-toxic. Based on this analysis and ones previously submitted, we are planning to petition for delisting of the sludge and exemption from the 90-day maximum storage time as a generator.

In addition, please correct the Waste Code Identification for the Degreasing Waste from 103304 to 164601, which was reissued 3-9-83 by your office. The two codes have been used for identifying the same waste. This had been discussed between Curtis Backer and myself on March 21, 1983.

Best regards,

Gary W. Steinke

Gary W. Steinke
Production Manager

GS:ns

T&B / Thomas & Betts

REPLY TO:
T&B/THOMAS & BETTS
9932 East 58th Street, South
Tulsa, Oklahoma 74145
(918) 252-0466

Mr. Donald A. Hensch, P.E.
Oklahoma State Department of Health
1000 Northeast 10th St.
P.O. Box 53551
Oklahoma City, Ok 73152

Dear Mr. Hensch:

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Best regards,

Gary W. Steinke

Gary W. Steinke
Production Manager

GS:ns

Industrial and Solid Waste Division
Oklahoma State Department of Health
Box 53551
Oklahoma City, Oklahoma 73105

Waste Receiving Site Permit Number

Report For 12, 19 82
Month Year

RECEIVED APR 1 1983 Waste Management Service

# MONTHLY REPORT
# CONTROLLED INDUSTRIAL WASTE RECEIVING SITE

This report is to be completed on a monthly basis by all disposal sites or processing facilities receiving controlled industrial waste as defined by 63 O.S. Supp. 1976, §2751 et seq., and rules and regulations promulgated pursuant thereto. This report is to be received by the Oklahoma State Department of Health, Industrial and Solid Waste Division, on or before the 15th day of the month following that month covered by this report. Copies of all shipping manifests are to be included at the time of submission. (See reverse side for instructions.)

Waste ~~Receiving~~ Storage Site T+B/ Thomas + Betts Co. Inc.

Site Location 9932 East 58th St. South. Phone No. (918) 252-0466

Business Address 9932 East 58th St. South Phone No. (918) 252-0466

Type or print clearly. Group entries by Waste Code, or use separate sheets for each.

Page No. 1 of 1

| ① Number | ② Disposal Plan Number | ③ Waste Code | ④ Hauler Number | ⑤ Manifest Number | ⑥ Volume | ⑦ * | ⑧ Date Rec'd. | ⑨ Remarks |
|---|---|---|---|---|---|---|---|---|
| — | 72032 | 664714 | — | — | 105 | | — | Mat'l Generated internal to manufacturing operation |
| — | 72032 | 103304 | — | — | 84 | | — | Mat'l Generated internal to manufacturing operation |

RECEIVED APR 11 1983 HAZARDOUS MATERIALS

*Enter One: (1) Gallons (2) Pounds (3) Tons (4) Drums (55 gal.) (5) Cubic Yards

I hereby certify that this record is correct and accurate to the best of my knowledge, and lists all wastes received by this site for the month of Dec, 1982. Date Jan 10, 1983

Signature of Site Owner/Operator

Industrial and Solid Waste Division
Oklahoma State Department of Health
Box 53551
lahoma City, Oklahoma 73105

te Receiving Site Permit Number I 5 7 2 9 0 5

Report For 0 1 , 19 8 3
Month Year

RECEIVED
APR 1 1983
Waste Management Services

# MONTHLY REPORT
# CONTROLLED INDUSTRIAL WASTE RECEIVING SITE

This report is to be completed on a monthly basis by all disposal sites or processing facilities receiving controlled industrial waste as defined by 63 O.S. Supp. 1976, §2751 et seq., and rules and regulations promulgated pursuant thereto. This report is to be received by the Oklahoma State Department of Health, Industrial and Solid Waste Division, on or before the 15th day of the month following that month covered by this report. Copies of all shipping manifests are to be included at the time of submission. (See reverse side for instructions.)

Waste Receiving Site T.B / Thomas & Betts Co.

Site Location 9932 East 58th st. South, Tulsa, OK 74145 Phone No. (918) 252-0466

Business Address 9932 East 58th St South, Tulsa, OK 74145 Phone No. (918) 252-0466

Type or print clearly. Group entries by Waste Code, or use separate sheets for each.

Page No. 1 of 1

| ① Number | ② Disposal Plan Number | ③ Waste Code | ④ Hauler Number | ⑤ Manifest Number | ⑥ Volume | ⑦ * | ⑧ Date Rec'd. | ⑨ Remarks |
|---|---|---|---|---|---|---|---|---|
| 2 | 72032 | 664714 | 1000 | 000001 | 1 | 5 | 0121 | Dec '31 on hand 10 |
| | | | 1000 | 000001 | 2 | 5 | 0126 | Jan generated 3 |
| | | | | | | | | Total in Storage 13 cu yds |
| 1 | 72032 | 103304 | 1000 | 000001 | 2 | 4 | 0128 | Dec '31 on hand 8 |
| | | | | | | | | Jan generated 2 |
| | | | | | | | | Total in storage 10-drums |

*Enter One: (1) Gallons (2) Pounds (3) Tons (4) Drums (55 gal.) (5) Cubic Yards

I hereby certify that this record is correct and accurate to the best of my knowledge, and lists all wastes received by this site for the month of Jan, 1983. Date 2/23/83

Mary W. Strunke
Signature of Site Owner/Operator

Industrial and Solid Waste Division
Oklahoma State Department of Health
Box 53551
ahoma City, Oklahoma 73105

Waste Receiving Site Permit Number I 5 7 2 9 0 5

Report For 0 2 , 19 8 3
Month Year

RECEIVED
APR 1 1983
Waste Management Service

# MONTHLY REPORT
# CONTROLLED INDUSTRIAL WASTE RECEIVING SITE

This report is to be completed on a monthly basis by all disposal sites or processing facilities receiving controlled industrial waste as defined by 63 O.S. Supp. 1976, §2751 et seq., and rules and regulations promulgated pursuant thereto. This report is to be received by the Oklahoma State Department of Health, Industrial and Solid Waste Division, on or before the 15th day of the month following that month covered by this report. Copies of all shipping manifests are to be included at the time of submission. (See reverse side for instructions.)

Waste Receiving Site T+B / Thomas + Betts Co.

Site Location 9932 East 58th St. South, Tulsa, OK 74145 Phone No. (918) 252-0466

Business Address 9932 East 58th St. South, Tulsa, OK 74145 Phone No. (918) 252-0466

Type or print clearly. Group entries by Waste Code, or use separate sheets for each.

Page No. 1 of 1

| ① Number | ② Disposal Plan Number | ③ Waste Code | ④ Hauler Number | ⑤ Manifest Number | ⑥ Volume | ⑦ * | ⑧ Date Rec'd. | ⑨ Remarks |
|---|---|---|---|---|---|---|---|---|
| 2 | 72032 | 664714 | 1000 | 000001 | 2 | 5 | 0207 | Jan '31 on hand 13 |
| | | | 1000 | 000001 | 2 | 5 | 0217 | Feb generated 5 |
| | | | 1000 | 000001 | 1 | 5 | 0223 | Total in Storage 18 cu yds |
| 1 | 72032 | 103304 | 1000 | 000001 | 1 | 4 | 0203 | Jan '31 on hand 10 drums |
| | | | 1000 | 000001 | 1 | 4 | 0215 | Feb generated 3 |
| | | | 1000 | 000001 | 1 | 4 | 0228 | Total in Storage 13 |

*Enter One: (1) Gallons (2) Pounds (3) Tons (4) Drums (55 gal.) (5) Cubic Yards

ereby certify that this record is correct and accurate to the best of my knowledge, and lists all wastes received by this site for the month of Feb, 1983. Date March 14, 1983

Gary W. Steinke
Signature of Site Owner/Operator

RECEIVED

APR 1 1983

Waste Management Service

STORAGE RECORD AND GENERATION LOG
WASTE: WATER OIL-SOLVENT

| Waste Code State | Waste Code Federal | DOT Description | Hazardous Material ID No. |
|---|---|---|---|
| ~~103304~~ 164601 | F001 | Combustible Liq. N.O.S. | NA1270 |

| DATE (include year) | QUANTITY 55 Gal Drums (gallons) | TOTAL IN STORAGE (gallons) | SHIPMENTS 55 Gal Drums (gallons) | BALANCE IN STORAGE (gallons) | HANDLING CODE | REMARKS AND INITIALS |
|---|---|---|---|---|---|---|
| 01-03-83 | - | 8 | - | 8 | S01 | Aug-Dec 1982 generation. On hand Started This format NAL |
| 01-28-83 | 2 | 10 | - | 10 | S01 | NAL Monthly report filed for quantity |
| 02-03-83 | 1 | 11 | - | 11 | S01 | NAL |
| 02-15-83 | 1 | 12 | - | 12 | S01 | NAL |
| 02-28-83 | 1 | 13 | - | 13 | S01 | NAL Monthly report filed for quantity |
| 03-04-83 | 1 | 14 | - | 14 | S01 | NAL |
| 03-10-83 | 1 | 15 | - | 15 | S01 | NAL |
| 03-17-83 | 1 | 16 | - | 16 | S01 | NAL |
| 3/21/83 | | | 16 | 0 | S01 | Shipped 16 Drums Manifest 71807 |
| | | | | | | G. Stanke |

APR 11 1983
WATER MATERIALS BRANCH

STORAGE RECORD AND GENERATION LOG

WASTE: SLUDGE FROM PLATING WASTE WATER TREATMENT

| Waste Code | | DOT Description | Hazardous Material ID Number |
|---|---|---|---|
| State | Federal | Hazardous Waste Solid N.O.S. | NA9189 |
| 664714 | F006 | | |

RECEIVED APR 1 1983 Waste Management Service

| DATE (include year) | QUANTITY (cu. yds.) | TOTAL IN STORAGE | SHIPMENTS (cu.yds.) | BALANCE IN STORAGE | HANDLING CODE | REMARKS AND INITIALS |
|---|---|---|---|---|---|---|
| 01-03-83 | – | 10 | – | 10 | S01 | This was the quantity on hand when this new form of reporting was started |
| 01-21-83 | 1 | 11 | – | 11 | S01 | MKS |
| 01-26-83 | 2 | 13 | – | 13 | S01 | MKS Monthly report filed for quantity on storage |
| 02-07-83 | 2 | 15 | – | 15 | S01 | MKS |
| 02-17-83 | 2 | 17 | – | 17 | S01 | MKS |
| 02-23-83 | 1 | 18 | – | 18 | S01 | MKS No monthly report filed for quantity in storage |
| 03/21/83 | | | 21- | ~~21~~ 0 | S01 | Shipped Container 21 cu yd Manifest # 70498 G. Stanke |
| | | | | | | |
| 3/24/83 | 2 | 2 | | 2 | S01 | MWS |
| | | | | | | |
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| | | | | | | |

Industrial [illegible] Division
Oklahoma [illegible] Department of Health
Box 53551
Oklahoma City, Oklahoma 73152
(405) 271-5338

Manifest OK [illegible]
Uniform Manifest No: /

RECEIVED
APR 1 1983
Waste Management Service

# CONTROLLED INDUSTRIAL WASTE SHIPPING MANIFEST

*See reverse side for instruction* — *Please type or print clearly*

**Generator/Shipper**

EPA I.D. No. [illegible]
Origin State I.D. No. [illegible]
Destination State I.D. No.

Business Name [illegible]
Business Address [illegible]
Pickup Address/Location [illegible]
Authorized Agent [illegible] Title [illegible]

**EMERGENCY TELEPHONE NUMBERS:** ( [illegible] ) 252 – [illegible]
**CHEMTREC:** (800) 424-9300
**NATIONAL EMERGENCY RESPONSE CENTER:** (800) 424-8802

Destination: U.S. POLLUTION CONTROL INC. [illegible] DISPOSAL FACILITY
Waste Receiving Site [illegible]
Site Location [illegible] BOX [illegible] WAYNOKA, OKLAHOMA 73[illegible]

| Proper DOT Shipping Name and Hazard Class | UN/NA Number | Total Quantity | Unit Wt./Vol. | Container No. | Container Typ | Waste Code Federal | Waste Code Okla. | Waste Code Other | Characteristic Notes |
|---|---|---|---|---|---|---|---|---|---|
| Hazardous Waste | NA9189 | [illegible] | cyl | | | | [illegible] | | Toxic |
| Solid N.O.S. | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Special Instructions

Date of Shipment

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, the Environmental Protection Agency, and Oklahoma State Department of Health.

*Signature of Authorized Agent*

RECEIVED APR 11 1983 HAZARDOUS MATERIALS BRANCH

**Hauler No. 1**

EPA I.D. No. [illegible]
Hauler Name U.S. POLLUTION CONTROL INC
Origin State I.D. No. [illegible]
Business Address 2000 CLASSEN CENTER SUITE 320 SOUTH OKC 73106
Destination State I.D. No.
Phone Number ( ) 405 523 5371
Date Received

I hereby certify that the above described waste materials were received for transport to the above designated destination.

*Signature of Authorized Agent*

**Hauler No. 2**

EPA I.D. No.
Hauler Name
Origin State I.D. No.
Business Address
Destination State I.D. No.
Phone Number ( )
Date Received

I hereby certify that the above described waste materials were received for transport to the above designated destination.

*Signature of Authorized Agent*

**Treatment/Storage/Disposal Facility No. 1**

EPA I.D. No. [illegible]
Waste Receiving Site U.S. POLLUTION CONTROL INCORPORATED
Origin State I.D. No.
Business Address [illegible] BOX [illegible] A WAYNOKA, OK 73[illegible]
Destination State I.D. No. [illegible]
Phone Number ( ) 405 697-[illegible]
Date Received
Date Shipped to Final TSDF
Discrepancies Noted:
This site is the (primary ☐) (alternate ☐) facility for (transient storage ☐) (final treatment/disposal ☐)

I certify that the materials described above, in the quantities stated, are hereby received and accepted by me. I further certify that they will be handled, stored, treated and/or disposed of in accordance with the Generator's Disposal Plan and my site permit.

*Signature of Authorized Agent*

**Treatment/Storage/Disposal Facility No. 2**

EPA I.D. No.
Waste Receiving Site
Origin State I.D. No.
Business Address
Destination State I.D. No.
Phone Number ( )
Date Received
Date Shipped to Final TSDF
Discrepancies Noted:
This site is the (primary ☐) (alternate ☐) facility for (transient storage ☐) (final treatment/disposal ☐)

I certify that the materials described above, in the quantities stated, are hereby received and accepted by me. I further certify that they will be handled, stored, treated, and/or disposed of in accordance with the Generator's Disposal Plan and my site permit.

*Signature of Authorized Agent*

OKLAHOMA STATE DEPARTMENT OF HEALTH
INDUSTRIAL WASTE DIVISION

ODH FORM NO. 846
Revised 5/82

U.S. POLLUTION CONTROL, INCORPORATED

USPCI

SUITE 320 SOUTH
2000 CLASSEN CENTE
OKLAHOMA CITY, OK[redacted]106

PHONE: OKLA. CITY - (405) 528-8371
TULSA - (918) 446-2786

OCC: MC-27491 & [illegible]D-167
OSDH: SD 47002 [illegible] & 2004
EPA ID: OKT 410[redacted]74
OKT 410[redacted]66
ICC: MC 153414

No. 08689

# LOAD TICKET

DATE: 3-21-83

OFFICE USE ONLY

CUSTOMER: Thomas & Betts

DISPOSAL PLAN NO.: 72032

CUSTOMER NO.:

P.O. NO.:

SHIP FROM
ADDRESS:
CITY AND STATE: Tulsa Okla.
ZIP CODE:

CHARGES

RECEIVED
APR 1 1983
Waste Management Service

BILL TO
ADDRESS:
CITY AND STATE:
ZIP CODE:
ATTENTION:

☐ Same As Above

| MANIFEST NO. | DISPOSAL SITE | UNIT NO. | USPCI DRIVER |
|---|---|---|---|
| 70498 | Tra Mo | C6/143 | [illegible] |

| AMOUNT | TIME-START | FINISH | TOTAL TIME | DEMURRAGE TIME |
|---|---|---|---|---|
| 21 ☐ Yd³ ☐ Gals. ☐ Bbls. ☐ Lbs. | 0900 | 1000 | 1 Hrs. | 0 Hrs. |

DESCRIPTION

Waste Code No. NA 9189

Waste Code No.

DISBURSEMENT

RECEIVED
APR 11 1983
HAZARDOUS MATERIALS

## AGREEMENT

Customer agrees to indemnify and save harmless United States Pollution Control, Inc. (USPCI), its agents and employees, against any and all liabilities, obligations, claims, losses, and expenses (1) caused or created by Customers, its sub-contractors, or the agents and employees of either, whether negligent or not, arising out of work hereunder, or (2) arising out of injuries (including death) suffered or allegedly suffered by employees of Customer or its sub-contractors (a) in the course of their employment, or (b) in the performance of work hereunder, due to the failure of Customer, or their sub-contractors, or anyone directly or indirectly employed by them or any of them to act with due care while engaged in the performance of work contemplated by this Agreement. Further, in connection with the work hereunder, Customer shall indemnify and save harmless USPCI and the owner of any real property upon which the work is to be performed against any liability to sub-contractors or other third persons under the mechanics, materialmen, labor or other applicable lien laws of the State in which the work is to be performed.

I have read and understand the terms of this Agreement and represent that I am authorized to sign the same as agent of Customer.

Signed By [signature]
CUSTOMER REPRESENTATIVE

USPCI-109

CUSTOMER—NOT AN INVOICE

Industrial Waste Division
Oklahoma State Department of Health
Box 53551
Oklahoma City, Oklahoma 73152
(405) 271-5338

Manifest OK-
Uniform Manifest No:

# CONTROLLED INDUSTRIAL WASTE SHIPPING MANIFEST

*See reverse side for instruction*

*Please type or print clearly*

**Generator/Shipper**

EPA I.D. No. [illegible]
Origin State I.D. No. [illegible]

Business Name: Thomas & Betts, Inc.
Destination State I.D. No.
Business Address: 9932 East 58th St. South Tulsa, Ok 74145
Pickup Address/Location: 9932 East 58th St. South, Tulsa, Ok.
Authorized Agent: Gary Steinke Title: Production Manager

**EMERGENCY TELEPHONE NUMBERS:** ( 918 ) 252 - 0466
**CHEMTREC:** (800) 424-9300
**NATIONAL EMERGENCY RESPONSE CENTER:** (800) 424-8802

Destination:
Waste Receiving Site: Chemical Waste Management, Inc.
Site Location: Hwy 73, 2 miles east of Taylor Bayou, Port Arthur, Tx.

| Proper DOT Shipping Name and Hazard Class | UN/NA Number | Total Quantity | Unit Wt./Vol. | Container No. | Container Typ | Waste Code Federal | Waste Code Okla. | Waste Code Other | Characteristic Notes |
|---|---|---|---|---|---|---|---|---|---|
| Combustible Liquid NOS | NA1270 | 880 | gal | 16 | 17 | F001 | 164601 | 115080 | Degreasing Waste |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Special Instructions

Date of Shipment

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, the Environmental Protection Agency, and Oklahoma State Department of Health.

*Signature of Authorized Agent*

**Hauler No. 1**
EPA I.D. No. OKD041602089
Hauler Name: Ashland Chemical Co.
Origin State I.D. No. 1072
Business Address: 3535 West 21st, Tulsa, Ok. 74107
Destination State I.D. No.
Phone Number: (918) 587-0168 Date Received

I hereby certify that the above described waste materials were received for transport to the above designated destination.

*Signature of Authorized Agent*

**Hauler No. 2**
EPA I.D. No.
Hauler Name
Origin State I.D. No.
Business Address
Destination State I.D. No.
Phone Number ( ) Date Received

I hereby certify that the above described waste materials were received for transport to the above designated destination.

*Signature of Authorized Agent*

**Treatment/Storage/Disposal Facility No. 1**
EPA I.D. No.
Waste Receiving Site
Origin State I.D. No.
Business Address
Destination State I.D. No.
Phone Number ( )
Date Received Date Shipped to Final TSDF
Discrepancies Noted:
This site is the (primary ☐) (alternate ☐) facility for (transient storage ☐) (final treatment/disposal ☐)

I certify that the materials described above, in the quantities stated, are hereby received and accepted by me. I further certify that they will be handled, stored, treated and/or disposed of in accordance with the Generator's Disposal Plan and my site permit.

*Signature of Authorized Agent*

**Treatment/Storage/Disposal Facility No. 2**
EPA I.D. No.
Waste Receiving Site
Origin State I.D. No.
Business Address
Destination State I.D. No.
Phone Number ( )
Date Received Date Shipped to Final TSDF
Discrepancies Noted:
This site is the (primary ☐) (alternate ☐) facility for (transient storage ☐) (final treatment/disposal ☐)

I certify that the materials described above, in the quantities stated, are hereby received and accepted by me. I further certify that they will be handled, stored, treated, and/or disposed of in accordance with the Generator's Disposal Plan and my site permit.

*Signature of Authorized Agent*

Texas Department of Water Resources
P.O. Box 13087, Capitol Station
Austin, Texas 78711

RECEIVED APR 1 1983 Waste Management Service

Ticket No. 00723[illegible]

# TEXAS WASTE SHIPPING—CONTROL TICKET

(Please Type or Print Clearly)

(Satisfies TDWR, TDH, U.S. DOT and U.S. EPA requirements for hazardous or class I waste manifest)

**PART I:** To be completed by Generator (see reverse side for instructions)

Company Name: Thomas & Betts, Inc.

Business Address: 9932 East 58th St. South, Tulsa, Ok. 74112

Address From Which Shipment Originates: 9932 East 58th St. South, Tulsa, Ok. 74112

TDWR/TDH Registration No.: [illegible]

EPA Gen. #: [illegible]

Emergency Phone A/C: 918-252-3466

**DESTINATION:**

Primary TSD Facility Name: Chemical Waste Management, Inc.

Business Address: Hwy 73, 2 miles east of Taylor Bayou

Destination (Site) Address: Port Arthur Tx

TDWR/TDH Permit No.: 39012

EPA TSD Fac. #: [illegible]

Phone A/C: [illegible]

Alternate TSD Facility Name:

Business Address:

Destination (Site) Address:

TDWR/TDH Permit No.:

EPA TSD Fac. #:

Phone A/C:

| 1. US DOT PROPER SHIPPING NAME | 2. US DOT HAZARD CLASS | 3. UN/NA NUMBER | 4. QUANTITY | UNITS* | 5. CONTAINER NO. | TYPE | 6. TEXAS WASTE CODE |
|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | 880 | 1 2 3 4 | 16 | [illegible] | [illegible] |
| | | | | 1 2 3 4 | | | |
| | | | | 1 2 3 4 | | | |
| | | | | 1 2 3 4 | | | |
| | | | | 1 2 3 4 | | | |
| | | | | 1 2 3 4 | | | |
| | | | | 1 2 3 4 | | | |

* Circle one: (1) tons (2) gallons (3) cubic yards (4) drums (55 gal.)

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, TDWR, and TDH.

Date of Shipment:

Sig. of Authorized Agent:

**PART II:** To be completed by the Transporter/Driver (see reverse side for instructions)

Transporter: Ashland Chemical Co.

Business Address: 4505 West 21st Tulsa, Ok. 74107

Phone Number A/C: 918-587-0161

TDWR/TDH Trans. No.: [illegible]

EPA Trans. No.: [illegible]

I certify (or declare) that the materials in the quantities described above are received by me for shipment to the above named destination.

Date Received:

Sig. of Authorized Agent:

**PART III:** To Be completed by Treatment, Storage and Disposal (TSD) Facility Owner/Operator (see reverse side for instructions)

TSD Facility Name:

Phone Number:

Site Address:

TSD Facility Owner/Operator Comments:

TDWR/TDH Permit No.:

EPA TSD Fac. No.:

Date Received:

I certify (or declare) that the materials in the quantities described in Part I are received by me.

Sig. of Authorized Agent:

White - Original Pink - TSD Facility Yellow - Transporter Green - Generator's First Copy

1689-8F

**Ashland Chemical Company**

DIVISION OF ASHLAND OIL, INC.

Ashland

# SALES ORDER

| CO. No. | DIV. | ORG. | ACCOUNT No. | DEST. | SALESMAN | TRUCK No. | DRIVER | TANK No. | ORDER No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 65 | 9431 | RH | | 72064 |

| ROUTE | CAR No. | SHIP FROM (City and State) | OCO | DATE OF ORDER |
|---|---|---|---|---|
| | | Tulsa, Ok (35) | | BC |

| CUSTOMER ORDER & REQ. No. | F.O.B. | Freight | Ship code | Cash | Chrg. | DATE SHIPPED | TERMS | REQUESTED SHIP DATE |
|---|---|---|---|---|---|---|---|---|
| TS-15126-95 | Ship 2 Dest-2 | PPD 1 Coll-2 | TC 2 LTL-2 | | 1 | 3/21/83 | | 3-21 (Mon) 9:00AM |

**SHIP TO:** 5 50 050 8906690

THOMAS / BETTS INC
~~9932 EAST 58TH ST~~
TULSA OK 74145

0 0 70

**"ATTENTION DIRECTOR OF PURCHASING:** All shipments shall be governed by the Terms and Conditions on the reverse side. Acceptance of delivery shall be deemed acceptance of such provisions. No other terms shall have effect unless in writing signed by Seller."

| 1 | 2 | PRODUCT CODE | CONT. CODE | √ | H.M. | DESCRIPTION | QTY. ORDERED (No Conts. or Cap.) | 3 | Temp | NET QUANTITY SHIPPED | PRICE | 4 | AMOUNT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0540000 | 00 | | x | Combustible Liquid NOS NA1270 | 16 | | | 16 | | e | |
| | | | | | | 880 gal | | | 55 gl | dr Degreasing Waste | | | |
| | | | | | | | | | | | | | |
| 07 | | 0540000 | 01 | | | Picked up 16 drums | | | | | | | |
| 07 | | 0540000 | 02 | | | of Hazardous Waste | | | | | | | |
| 07 | | 0540000 | 03 | | | Manifest # 71807 (Ok) | | | | | | | |
| 07 | | 0540000 | 04 | | | Manifest #00723948 (Tx) | | | | | | | |
| 07 | | 0540000 | 05 | | | Profile ASE 50-015 | | | | | | | |

RECEIVED
1 1983
Waste Management Service

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APR 1 1983
Waste Management Service

| 1 | 2 | RETURNABLE CONTAINERS | TYPE CONTAINER | I.D. NO. 5 | MISSING PARTS | SIZE | GAUGE | D.O.T. | QUANTITY RECEIVED | PRICE | 4 | AMOUNT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

| CASH SETTLEMENT | |
|---|---|
| CASH | |
| CHECKS | |
| C/M'S | |
| TOTAL | |

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation.

**TOTAL**

**WARNING:** *Excessive inhaling of solvent vapor or prolonged contact with skin may be harmful.*

NOTE: THE QUANTITY OF CONTAINERS BEING RECEIVED MAY NOT REFLECT THE AMOUNT OF CREDIT THAT WILL BE ISSUED. CREDIT WILL BE ISSUED UPON FURTHER INSPECTION AS TO REUSEABILITY.

5-CONTAINER I.D. NUMBERS
1..POLY CARBOYS
2..GLASS CARBOYS
3..DEL DRUM
4..DEL BOY
5..AL DRUMS
6..POLY/STEEL DRUMS
7..S/S DRUMS
8..STEEL DRUMS
9..GAS CYLINDERS

Subject to correction of clerical errors

DELIVERED BY: Gary W. Steinke 3/31

RECEIVED BY: Reuben Hay

METER READING:

TAXES-Existing taxes or any additional tax levied by any governmental authority on products herein named shall be to account of the buyer.

√ SALES TAX KEY
1=Taxable
2=Exempt
3=Hand Code

1-SPECIAL LINE CODE
2-MULTI-INVOICE CODE

3-DRUM DEPOSIT
0=No drum deposit
1=Drum deposit
2=Manual drum deposit
3=Ashland container incl.

4-HOW BILLED
E=Each H=CWT
G=Gallon T=Tons
P=Pounds

ACKNOWLEDGEMENT

ROBERT L. RORSCHACH, P.E.
*Consulting Chemical Engineer*

SUITE 708, 320 SOUTH BOSTON
TULSA, OKLAHOMA 74103
918 / 587-0352

March 21, 1983

Mr. Gary Steinke
Thomas and Betts, Inc.
9932 E. 58th Street S.
Tulsa, OK 74133

Dear Mr. Steinke:

This letter will certify that on March 21, 1983, between the hours of 9:00 and 10:00 a.m., I witnessed the removal of the following materials from your company's shipping dock at 9932 E. 58th Street South, Tulsa, Oklahoma.

1. 16 - 55 gallon drums containing combustible liquid waste from metal degreasing operations. Carrier: Ashland Chemical Company. Destination: Chemical Waste Management, Inc., Port Arthur, Texas.

2. 1 - 21 cubic yard container of solid sludge waste from a plating waste treatment process. Carrier: U.S. Pollution Control, Inc. Destination: Lone Mountain Disposal Site, Waynoka, OK.

These containers were appropriately labelled, manifested and documented in your records.

Sincerely yours,

Robert L. Rorschach

Robert L. Rorschach

RLR/clk

RECEIVED
APR 11 1983
HAZARDOUS MATERIALS
DIVISION

RECEIVED
APR 1 1983
Waste Management Service

T&B/Thomas & Betts

REPLY TO:
T&B/THOMAS & BETTS
9932 East 58th Street, South
Tulsa, Oklahoma 74145
(918) 252-0466

March 21, 1983

RECEIVED
APR 1 1983
Waste Management Service

Mr. Steve Zambrzuski
U. S. Pollution Control, Inc.
P. O. Box 9674
Tulsa, Ok 74107

Dear Steve:

Per our conversation of March 18, 1983, please arrange to have our Waste Gondola exchanged every 90 days, beginning March 21, 1983. This will continue until we have the results of a delisting petition with the EPA.

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APR 11 1983

REFERENCE MATERIAL
Hazardous Waste Solid N.O.S.
NA9189
664714 - State
Toxic

Sincerely,

Gary W. Steinke

Gary Steinke
Production Manager

GS:ns

T&B / Thomas & Betts

REPLY TO:
T&B/THOMAS & BETTS
9932 East 58th Street, South
Tulsa, Oklahoma 74145
(918) 252-0466

March 21, 1983

RECEIVED
APR 1 1983
Waste Management Service

Mr. Bill Cay
Ashland Chemical Co.
Box 9278
Tulsa, Ok 74107

Dear Bill:

Per the Waste Transportation and Disposal agreement as of March 17, 1983, please arrange to have waste pick-ups made on a 90-day schedule, effective March 21, 1983. Thomas & Betts will notify you if a pick-up will be required prior to 90 days.

REFERENCE MATERIAL

Combustible Liquid N.O.S.
NA 1270
F001 - Federal
164601 - State
Degreasing Waste

Sincerely,

Gary W. Steinke

Gary Steinke
Production Manager

GS:ns

T&B/Thomas & Betts, Division of Thomas & Betts Corporation
920 Route 202 Raritan, New Jersey 08869 (201) 685-1600 TELEX 833190

METLAB Testing Service Inc.

6825 East 38th Street Tulsa, Oklahoma 74145

REPORT NO. 83-503

# LABORATORIES CHEMICAL & MECHANICAL TEST REPORT

| | |
|---|---|
| CUSTOMER T & B/Thomas & Betts | ORDER NUMBER |
| DATE RECEIVED 2/9/83 | SPECIFICATION |
| SHIPPER NUMBER | MATERIAL TYPE Blue Green Solid Sludge |
| FORWARD TEST RESULTS TO: (NAME & ADDRESS) Gary Steinke, 9932 E 58th., Tulsa, OK 74145 | |

EP-Toxicity **CHEMICAL ANALYSIS** in mg/l on extract

| SPECIMEN NUMBER | ELEMENTS TESTED | | | | | | | | | IDENTIFIED AS |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cu | Sn | Fe | Ca | Ni | $NO_3$ | As | Ba | Cd | |
| 1 | 0.71 | <1 | 7.9 | 212 | 0.17 | 8.1 | <.02 | 3.33 | <.006 | |
| | | | | | | | | | | |
| | Cr | Pb | Hg | Se | Ag | | | | | |
| 1 | <.05 | 0.20 | <.0002 | <.02 | <.02 | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

RECEIVED APR 1 1983 Waste Management Service

**MECHANICAL TEST**

| SPECIMEN NUMBER | ELONGATION (%) | REDUCTION OF AREA (%) | YIELD STRENGTH (PSI) | ULTIMATE STRENGTH (PSI) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

RECEIVED APR 11 1983 HAZARDOUS MATERIALS BRANCH

**COMMENTS**

APPROVAL/DATE 4/11/83

METLAB Testing Service Inc.

6825 East 38th Street Tulsa, Oklahoma 74145

REPORT NO. 83-674

# LABORATORIES CHEMICAL & MECHANICAL TEST REPORT

| | |
|---|---|
| CUSTOMER T & E/Thomas and Gatte | ORDER NUMBER |
| DATE RECEIVED 2/22/83 | SPECIFICATION |
| SHIPPER NUMBER | MATERIAL TYPE Green Solid Sludge |
| FORWARD TEST RESULTS TO: (NAME & ADDRESS) Gary Steinke, 9932 E. 58th St., Tulsa, OK 74145 | |

## CHEMICAL ANALYSIS

| SPECIMEN NUMBER | ELEMENTS TESTED | | | | | | | | | IDENTIFIED AS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

RECEIVED APR 1 1983 Waste Management Service

## MECHANICAL TEST

| SPECIMEN NUMBER | ELONGATION (%) | REDUCTION OF AREA (%) | YIELD STRENGTH (PSI) | ULTIMATE STRENGTH (PSI) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

RECEIVED APR 11 1983 HAZARDOUS MATERIALS BRANCH

## COMMENTS

Total Cyanide <0.05 ppm by weight

APPROVAL/DATE Dan M[illegible] 2/24/83

Industrial and Solid Waste Divisio
Oklahoma State Department of Health
P.O. Box 53551
Oklahoma City, Oklahoma 73152

Dis l Plan No. 7 2 0 3 2

Report for Quarter Ending 1 2 (Month) 3 1 (Day), 19 8 2 (Year)

RECEIVED
APR 1 1983
Waste Management Service

# QUARTERLY REPORT
## GENERATORS OF CONTROLLED INDUSTRIAL WASTE

To be completed by generators of controlled industrial waste as defined by 63 O.S. Supp. 1979 Sec. 62751 et seq., as amended by House Bill 1379, and rules and regulations promulgated pursuant thereto, on a quarterly basis. This report is to be received by the Oklahoma State Department of Health, Industrial and Solid Waste Division, no later than thirty (30) days after the end of the quarter.

Business/Plant Name T & B/Thomas and Betts Co Phone NO. (918) 252-0466

Mailing Address 9932 East 58th St. S City Tulsa State Oklahoma Zip 74145

Plant Address/Location 9932 East 58th St. S. City Tulsa County Tulsa State Ok

Authorized Agent and Title Gary W. Steinke, Production Manager

Type or print clearly. Group entries by receiver, or use separate sheets for each.

Page No. 1 of 1

| ① Number of Shpmnts | ② Waste Code | ③ Receivers Permit Number | ④ Hauler License Number | ⑤ Total Quarterly Volume | ⑥ * | ⑦ Remarks - Disposal Methods, Procedures or Problems+ |
|---|---|---|---|---|---|---|
| 1 | 664714 | SD47002 | 2004 | 21 | 5 | Surface Disposal at the Lone Mountain Surface Disposal Site, Waynoka, Oklahoma |

RECEIVED APR 11 1983 HAZARDOUS MATERIALS

*Enter One: (1) Gallons (2) Pounds (3) Tons (4) Drums (55 gal.) (5) Cubic Yards
+Use short descriptions where possible i.e., "neutralization, then lagoon" or "lagoon, then injected" or "volume reduction, then incineration," etc.

I hereby certify that the above record is accurate and correct to the best of my knowledge, and includes all controlled industrial wastes generated by this facility, for the quarter ending Dec. 31, 19 83.

Date Jan 10, 1983

Gary W. Steinke
Signature of Authorized Agent

OKLAHOMA STATE DEPARTMENT OF HEALTH
Ind. & Solid Waste Division

ODH Form No. 847

# Memo

OK file 6/1/83

TO: Merilee Hood
EPA Region VI (6AW-HE)

DATE 21 APR 1983

FROM: A. A. Coulter ( O.S.D.H.)

Please process the enclosed petitions for:

1.) Small quantity generators:

RECEIVED
APR 22 1983
HAZARDOUS MATERIALS BRANCH

2.) Non-handler status:

3.) Amended Notification of hazardous waste activities or Part A:

4. CHANGE IN STATUS TO GENERATOR ONLY
THOMAS BETTIS (CKD 07003.58 23)

ODH Form 50A

# REFERENCE 16

T&B / THOMAS & BETTS KD 07 003 8823

TO EPA REGION IV

DATE AUGUST 6, 1980

FROM MOHAN ASTHANA

SUBJECT DESCRIPTION OF HAZARDOUS WASTE

This notice is being submitted on a photo copy of form 8700-12, as the company has not received a notice from the EPA Region VI office. The photo copy application is to meet the August 18, 1980 deadline date.

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

U.S. ENVIRONMENTAL PROTECTION AGENCY

# NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

| | |
|---|---|
| INSTALLATION'S EPA I.D. NO. | |
| I. NAME OF INSTALLATION | THE THOMAS & BETTS COMPANY |
| II. INSTALLATION MAILING ADDRESS | 9932 E 58TH STREET<br>TULSA, OK 74145 |
| III. LOCATION OF INSTALLATION | 9932 E 58TH STREET<br>TULSA, OK 74145 |

**INSTRUCTIONS:** If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

## FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER: F OKD070038823 (T/A 2, C 1)

APPROVED:

DATE RECEIVED (yr., mo., & day): 800812

000003

## I. NAME OF INSTALLATION

THE THOMAS & BETTS COMPANY

## II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 9932 E 58TH STREET

CITY OR TOWN: 4 TULSA

ST.: OK

ZIP CODE: 74145

## III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 9932 E 58TH STREET

CITY OR TOWN: 6 TULSA

ST.: OK

ZIP CODE: 74145

## IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: 2 GARY W STEINKE PLATING SUPVR

PHONE NO. *(area code & no.)*: 918-252-0466

DETACH

## V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 THE THOMAS & BETTS CORPORATION

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*

F = FEDERAL
M = NON-FEDERAL

M

## VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

## VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

## VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.

AUG 12 1980

## IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

| I.D. – FOR OFFICIAL USE ONLY | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | W | O | H | D | 0 | 7 | 0 | 0 | 3 | 8 | 8 | 2 | 3 | T/A | C |
| 1 | 2 | | | | | | | | | | | | 13 | 14 | 15 |

## IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

**A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES.** Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| F001 | F002 | F006 | F007 | F008 | F009 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | |

**B. HAZARDOUS WASTES FROM SPECIFIC SOURCES.** Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

| 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|
| | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 |
| | | | | | |
| 25 | 26 | 27 | 28 | 29 | 30 |
| | | | | | |

100000

**C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES.** Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

| 31 | 32 | 33 | 34 | 35 | 36 |
|---|---|---|---|---|---|
| P029 | P030 | P104 | P106 | U220 | U226 |
| 37 | 38 | 39 | 40 | 41 | 42 |
| | | | | | |
| 43 | 44 | 45 | 46 | 47 | 48 |
| | | | | | |

**D. LISTED INFECTIOUS WASTES.** Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

| 49 | 50 | 51 | 52 | 53 | 54 |
|---|---|---|---|---|---|
| | | | | | |

**E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES.** Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☐ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

## X. CERTIFICATION

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| SIGNATURE | NAME & OFFICIAL TITLE *(type or print)* | DATE SIGNED |
|---|---|---|
| John R. Weber | JOHN R. WEBER<br>PLANT MANAGER | 8/7/80 |



DETACH

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

7

~~THE THOMAS & BETTS COMPANY~~

~~9932 E. 58th STREET, SOUTH~~
~~TULSA, OKLA. 74145~~

~~9932 E. 58th Street, SOUTH~~
TULSA, OKLA. 74145

Copy

**INSTRUCTIONS:** If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

I. AFFIX LABEL

II. CHANGES TO PRINTED LABEL

III. FOR OFFICIAL USE

DETACH A

FOR

C

| INSTALLATION'S EPA I.D. NUMBER | APPROVED | DATE RECEIVED (yr., mo., & day) |
|---|---|---|
| OKD070038823 (T/A 2, C 1) | | 800808 |

000007

## I. NAME OF INSTALLATION

THE THOMAS & BETTS COMPANY

## II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 9932 E 58TH STREET

CITY OR TOWN: TULSA — ST.: OK — ZIP CODE: 74145

## III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 9932 E 58TH STREET

CITY OR TOWN: TULSA — ST.: OK — ZIP CODE: 74145

## IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: GARY W STEINKE PLATING SUPVR

PHONE NO. *(area code & no.)*: 918-252-0466

## V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: THE THOMAS & BETTS CORPORATION

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*

F = FEDERAL
M = NON-FEDERAL

M

## VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

## VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

## VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.

## IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

**REFERENCE 17**

10.04

Expires 12-31-85

ENVIRONMENTAL PROTECTION AGENCY

# GENERATOR BIENNIAL HAZARDOUS WASTE REPORT FOR 1983

This report is for the calendar year ending December 31, 1983.
Read All Instructions Carefully Before Making Any Entries on Form

## I. NON-REGULATED STATUS

Complete this section only if you did not generate regulated quantities of hazardous waste at any time during the 1983 calendar year. Circle the one code at right that best describes your status during the entire year (see instructions for explanation of codes).

1 Non-handler
2 Small Quantity Generator
4 Exempt
5 Beneficial Use
9 Closed

Please print/type with this type (12 characters per inch)

This Installation's Non-Regulated Status is Expected to Apply:

☐ For 1983 Only ☐ Permanently

☐ Other _____

## II. GENERATOR'S EPA I.D. NUMBER

T/A C

F O K D 0 7 0 0 3 8 2 3 1
1 2 13 14 15

C303 ENTRY (OFFICIAL USE ONLY): ☐

## III. NAME OF INSTALLATION

THOMAS AND BETTS CO
30 69

## IV. INSTALLATION MAILING ADDRESS

3992 EAST 58TH STREET SOUTH
15 16 45
Street or P.O. Box

TULSA OK 74146
15 16 41 42 47 51
City or Town State Zip Code

## V. LOCATION OF INSTALLATION (if different than section IV above)

15 16 45
Street or Route number

15 16 41 42 47 51
City or Town State Zip Code

## VI. INSTALLATION CONTACT

GARY WESTEINKE
15 16 45
Name (last and first)

918-252-0466
46 55
Phone No. (area code & no.)

## VII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| Charles D. Ochinegro, Plant Manager | Charles D. Ochinegro | 4-18-84 |
|---|---|---|
| Print/Type Name Title | Signature of Authorized Representative | Date Signed |

Tear out here

ENVIRONMENTAL PROTECTION AGENCY

# Generator Biennial Hazardous Waste Report for 1983 (cont.)

This report is for the calendar year ending December 31, 1983.

**VIII. GENERATOR'S EPA I.D. NO.**

O K D 0 7 0 0 3 8 8 2 3 T/A C 1 1

**IX. FACILITY NAME** (specify facility to which all wastes on this page were shipped)

LONE MOUNTAIN SURFACE DISPOSAL SITE

**X. FACILITY'S EPA I.D. NO.**

O K D 0 6 5 4 3 8 3 7 6

**XI. FACILITY ADDRESS**

RR #2, BOX 180-A
Waynoka, Okalhoma 73860

APR 19 1984
Waste Management Br.

**XII. TRANSPORTATION SERVICES USED**

U. S. POLLUTION CONTROL, INC.
2000 CLASSEN CENTER, SUITE 320S.
OKLAHOMA CITY, OKLAHOMA 73106

EPA I.D. NO. OKT410010466

001

**XIII. WASTE IDENTIFICATION**

| Sequence # | Line # | A. Description of Waste | B. DOT Hazard code | C. EPA Hazardous Waste No. (see instructions) | | D. Amount of Waste | E. Unit of Measure |
|---|---|---|---|---|---|---|---|
| 0001 | 1 | Sludge generated from Water Treatment System used for treating Electroplating Effluent Plating Waste PL | 15 | F006 | | 47 | T |
| | 2 | | | | | | |
| | 3 | | | | | | |
| | 4 | | | | | | |
| | 5 | | | | | | |
| | 6 | | | | | | |
| | 7 | | | | | | |
| | 8 | | | | | | |
| | 9 | | | | | | |
| | 10 | | | | | | |
| | 11 | | | | | | |
| | 12 | | | | | | |

**XIV. COMMENTS** (enter information by section number—see instructions)

SECTION XIII, E. Please refer to Page 3 of 6

Tear out here

REFERENCE: Section XIV of Page 2 of 6 regarding Section XIII D.

The amount of waste shipped is based on average Density of Material multiplied times the volume of the waste container.

In order to maintain generator status, the sludge container is shipped every 90 days whether it is full or partially filled. As the manifest is listed at 21 CYD per shipment, the 1983 generation stated in tons may be slightly overstated. This situation will be corrected in June of 1984 once arrangements are made with USPCI to weigh each shipment and obtain net weights.

APR 3 0 1984
Waste Management Service

# Generator B[illegible]nial Hazardous Waste [illegible]port for 1983 (cont.)

[illegible]s report is for the calendar year ending Dec[illegible]r 31, 1983.

**VIII. GENERATOR'S EPA I.D. NO.**

T/A C

G O K D 0 7 0 0 3 8 8 2 3 1 1

1 2 13 14 15

**IX. FACILITY NAME** (specify facility to which all wastes on this page were shipped)

CHEMICAL WASTE MANAGEMENT

**X. FACILITY'S EPA I.D. NO.**

T X D 0 0 0 8 3 8 9 6

16 28

**XI. FACILITY ADDRESS**

HWY. 73, 2 MILES EAST OF TAYLOR BAYOU
PORT ARTHUR, TX

**XII. TRANSPORTATION SERVICES USED**

Ashland Chemical Co.
3535 West 21st Street
Tulsa, Oklahoma 74107

EPA I.D. No. OKD041502089

003
0000

APR 19 1984
Waste Management Service

**XIII. WASTE IDENTIFICATION**

| Sequence # | Line # | A. Description of Waste | B. DOT Hazard Code | C. EPA Hazardous Waste No. (see instructions) | D. Amount of Waste | E. Unit of Measure |
|---|---|---|---|---|---|---|
| 0001 | 1 | Degreasing waste composed of 1,1,1 trichloroethane and machine oils combustible liquid NOS | 01 | F001 | 1925 | G |
| | 2 | | | | | |
| | 3 | | | | | |
| | 4 | | | | | |
| | 5 | | | | | |
| | 6 | | | | | |
| | 7 | | | | | |
| | 8 | | | | | |
| | 9 | | | | | |
| | 10 | | | | | |
| | 11 | | | | | |
| | 12 | | | | | |

**XIV. COMMENTS** (enter information by section number—see instructions)

Sec. XIII D, E.

Density of Material = 8.7 lbs./gal.
Amount Shipped as lbs (P) = 8.7 lbs./gal. x 1925 gal.
= 16,747 pounds



Tear out here

ENVIRONMENTAL PROTECTION AGENCY

# Generator Biennial Hazardous Waste Report for 1983 (cont.)

This report is for the calendar year ending December 31, 1983.

**VIII. GENERATOR'S EPA I.D. NO.**

T/A C

C O K D 0 7 0 0 3 8 8 2 3 1

1 2 13 14 15

**IX. FACILITY NAME** (specify facility to which all wastes on this page were shipped)

**X. FACILITY'S EPA I.D. NO.**

O K 0 0 0

16 28

**XI. FACILITY ADDRESS**

**XII. TRANSPORTATION SERVICES USED**

RECEIVED APR 19 1984 Waste Management Service

**XIII. WASTE IDENTIFICATION**

| Sequence # | Line # | A. Description of Waste | B. DOT Hazard code | C. EPA Hazardous Waste No. (see instructions) | | D. Amount of Waste | E. Unit of Measure |
|---|---|---|---|---|---|---|---|
| 0001 | 1 | Sludge generated from Water Treatment System used for treating Electroplating Effluent - Plating Waste | 15 | F006 | | 3 | T |
| | 2 | | | | | | |
| | 3 | | | | | | |
| | 4 | | | | | | |
| | 5 | | | | | | |
| | 6 | | | | | | |
| | 7 | | | | | | |
| | 8 | | | | | | |
| | 9 | | | | | | |
| | 10 | | | | | | |
| | 11 | | | | | | |
| | 12 | | | | | | |

**XIV. COMMENTS** (enter information by section number—see instructions)

1983 Generated -- Stored on-site less than 90 days as of December 31, 1983.

Tear out here

# Generator B[illegible]nnial Hazardous Waste [illegible]port for 1983 (cont.)

[illegible]is report is for the calendar year ending Dec[illegible]er 31, 1983.

**VIII. GENERATOR'S EPA I.D. NO.**

T/A C

0 K D 0 7 0 0 3 8 8 2 3 1

1 2 13 14 15

**IX. FACILITY NAME** (specify facility to which all wastes on this page were shipped)

**X. FACILITY'S EPA I.D. NO.**

16 28

**XI. FACILITY ADDRESS**

APR 19 1984 Hazardous Waste Management Service

**XII. TRANSPORTATION SERVICES USED**

**XIII. WASTE IDENTIFICATION**

| Sequence # | Line # | A. Description of Waste | B. DOT Hazard code | C. EPA Hazardous Waste No. (see instructions) | | D. Amount of Waste | E. Unit of Measure |
|---|---|---|---|---|---|---|---|
| 9902 | 1 | Degreasing waste composed of 1, 1, 1 trichloroethane and machine oils + Combustible Liquid NOS | 0 1 | F 0 0 1 | | 5 5 | G |
| | | | 33 34 | 35 38 43 46 | 39 42 47 50 | 51 59 | 60 |
| | 2 | | | | | | |
| | 3 | | | | | | |
| | 4 | | | | | | |
| | 5 | | | | | | |
| | 6 | | | | | | |
| | 7 | | | | | | |
| | 8 | | | | | | |
| | 9 | | | | | | |
| | 10 | | | | | | |
| | 11 | | | | | | |
| | 12 | | | | | | |

**XIV. COMMENTS** (enter information by section number—see instructions)

1983 Generated -- Stored on-site less than 90 days as of December 31, 1983.

Sec. IXXX D. & E.

Density of Material 8.7 lbs./gal.

Tear out here

# REFERENCE 18

**CITY OF TULSA PUBLIC WORKS DEPARTMENT**

**INDUSTRIAL PRETREATMENT**
**4818 SOUTH ELWOOD**
**TULSA, OK 74107**

**PERMIT NUMBER 6337**

**INDUSTRIAL WASTEWATER DISCHARGE PERMIT FOR:**

Thomas and Betts
9932 East 58th Street
Tulsa, OK 74145

The above stated company at the above stated location has been classified as a Significant Industrial User specifically a metal finishing point source as defined in 40 CFR 433 and is hereby authorized to discharge industrial wastewater into the City of Tulsa Sanitary Sewer System in compliance with the provisions of the City of Tulsa Ordinance 17419, applicable Federal Regulations and the conditions herein.

**DATE PERMIT EFFECTIVE** — **May 1, 1993**

**DATE PERMIT EXPIRES** — **April 30, 1994**

**DOUGLAS E. WILSON, INDUSTRIAL PRETREATMENT MANAGER**

# REFERENCE 19

METLAB Testing Services, Inc.
10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

# METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 93-06-294

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — PO# NOT SPECIFIED

In accordance with your instructions, chemical analysis was performed on samples submitted from your company on the above date. The results of the analysis are listed below.

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| FIRST FLUSH GRAB | TOTAL SILVER | <0.01 | mg/L | DBJ | 06/29/93 | EPA 200.7 |
| . | TOTAL ALUMINUM | 0.22 | mg/L | KEA | 06/28/93 | EPA 200.7 |
| . | TOTAL ARSENIC | <0.50 | mg/L | DBJ | 06/30/93 | EPA 200.7 |
| . | BERYLLIUM | <0.01 | mg/L | DBJ | 07/01/93 | EPA 200.7 |
| . | BOD5 | 33 | mg/L | TNH | 06/22/93 | EPA 405.1 |
| . | TOTAL CADMIUM | <0.01 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | COD | 184 | mg/L | KEA | 06/22/93 | EPA 410.4 |
| . | TOTAL CHROMIUM | <0.01 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | TOTAL COPPER | 0.07 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | TOTAL IRON | 0.98 | mg/L | DBJ | 06/28/93 | EPA 200.7 |
| . | TOTAL MERCURY | <0.0001 | mg/L | DM | 06/22/93 | EPA 245.1 |
| . | TOTAL KJELDAHL NITROGEN | 4 | mg/L | LTN | 06/23/93 | EPA 351.3.4 |
| . | ICP METALS PREPARATION | N/A | N/A | SRP | 06/22/93 | EPA 3010 |
| . | TOTAL NICKEL | <0.02 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | NITRATE/NITRITE-NITROGEN | 1.55 | mg/L | LTN | 06/23/93 | EPA 353.2 |
| . | OIL AND GREASE | 10 | mg/L | JLW | 06/23/93 | EPA 413.1 |
| . | TOTAL LEAD | <0.10 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | TOTAL PHOSPHORUS | 0.16 | mg/L | TNH | 06/23/93 | EPA 365.3 |
| . | TOTAL ANTIMONY | <0.10 | mg/L | KEA | 06/29/93 | EPA 200.7 |
| . | TOTAL SELENIUM | <0.50 | mg/L | DBJ | 07/01/93 | EPA 200.7 |

See the next page for more test results.

Approved by: G. A. Dust
George A. Dust
Vice President

METLAB Testing Services, Inc.
10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 93-06-294

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — PO# NOT SPECIFIED

FIRST FLUSH GRAB CONTINUED FROM THE PREVIOUS PAGE. (PAGE 2 )

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| . | TOTAL TIN | 0.26 | mg/L | DBJ | 06/25/93 | EPA 200.7 |
| . | TOTAL THALLIUM | <0.10 | mg/L | KEA | 06/30/93 | EPA 200.7 |
| . | TOTAL SUSPENDED SOLIDS | 24 | mg/L | JLW | 06/22/93 | EPA 160.2 |
| . | TOTAL ZINC | 0.12 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| 8H COMPOSITE | TOTAL SILVER | <0.01 | mg/L | DBJ | 06/29/93 | EPA 200.7 |
| . | TOTAL ALUMINUM | 0.07 | mg/L | KEA | 06/28/93 | EPA 200.7 |
| . | TOTAL ARSENIC | <0.50 | mg/L | DBJ | 06/30/93 | EPA 200.7 |
| . | BERYLLIUM | <0.01 | mg/L | DBJ | 07/01/93 | EPA 200.7 |
| . | BOD5 | 40 | mg/L | TNH | 06/22/93 | EPA 405.1 |
| . | TOTAL CADMIUM | <0.01 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | TOTAL CYANIDE | 0.003 | mg/L | LTN | 06/25/93 | EPA 335.3 |
| . | COD | 275 | mg/L | KEA | 06/22/93 | EPA 410.4 |
| . | TOTAL CHROMIUM | <0.01 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | TOTAL COPPER | 0.10 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| . | TOTAL IRON | 0.45 | mg/L | DBJ | 06/28/93 | EPA 200.7 |
| . | TOTAL MERCURY | <0.0001 | mg/L | DM | 06/22/93 | EPA 245.1 |
| . | TOTAL KJELDAHL NITROGEN | 11.0 | mg/L | LTN | 06/23/93 | EPA 351.3.4 |
| . | ICP METALS PREPARATION | N/A | N/A | SRP | 06/22/93 | EPA 3010 |
| . | TOTAL NICKEL | <0.02 | mg/L | DBJ | 06/24/93 | EPA 200.7 |

See the next page for more test results.

Approved by: George A. Dust
Vice President

METLAB Testing Services, Inc.
10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 93-06-294

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — PO# NOT SPECIFIED

8H COMPOSITE CONTINUED FROM THE PREVIOUS PAGE. (PAGE 3 )

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| | NITRATE/NITRITE-NITROGEN | 1.88 | mg/L | LTN | 06/23/93 | EPA 353.2 |
| | OIL AND GREASE | 17 | mg/L | JLW | 06/23/93 | EPA 413.1 |
| | TOTAL LEAD | <0.10 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| | PHENOL | 0.028 | mg/L | LTN | 06/22/93 | EPA 420.2 |
| | TOTAL PHOSPHORUS | <0.01 | mg/L | TNH | 06/23/93 | EPA 365.3 |
| | TOTAL ANTIMONY | <0.10 | mg/L | KEA | 06/29/93 | EPA 200.7 |
| | TOTAL SELENIUM | <0.50 | mg/L | DBJ | 07/01/93 | EPA 200.7 |
| | TOTAL TIN | <0.20 | mg/L | DBJ | 06/25/93 | EPA 200.7 |
| | TOTAL DISSOLVED SOLIDS | 6000 | mg/L | JLW | 06/22/93 | EPA 160.1 |
| | TOTAL THALLIUM | <0.10 | mg/L | KEA | 06/30/93 | EPA 200.7 |
| | TOTAL SUSPENDED SOLIDS | 13 | mg/L | JLW | 06/22/93 | EPA 160.2 |
| | TOTAL ZINC | 0.13 | mg/L | DBJ | 06/24/93 | EPA 200.7 |
| | 2,3,7,8-TCDD | 1 | PPB | PNT | 06/29/93 | METHOD 625 |

Should you have any questions, please feel free to call.

Approved by: G. A. Dust
George A. Dust
Vice President

METLAB Testing Services, Inc.

10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 9306294-02B

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — ID 8H COMPOSITE

## ACID EXTRACTABLES FOR TTO BY METHOD 625

| PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|
| BENZOIC ACID | ND* | 2-CHLOROPHENOL | ND |
| 2,4-DICHLOROPHENOL | ND | 2,4-DIMETHYLPHENOL | ND |
| 2,4-DINITROPHENOL | ND* | 2-METHYL-4,6-DINITRO-PHENOL | ND |
| 2-METHYL PHENOL | ND | 4-METHYL PHENOL | ND |
| 2-NITROPHENOL | ND | 4-NITROPHENOL | ND |
| P-CHLORO-M-CRESOL | ND | PENTACHLOROPHENOL | ND* |
| PHENOL | ND | TETRACHLOROPHENOL | ND |
| 2,4,5-TRICHLOROPHENOL | ND | 2,4,6-TRICHLOROPHENOL | ND |

| SURROGATE | %RECOVERY |
|---|---|
| PHENOL-D5 | 34 |
| 2-FLUOROPHENOL | 43 |
| 2,4,6-TRIBROMOPHENOL | 83 |

NOTES:

| | |
|---|---|
| ANALYST | PNT |
| UNITS | ppb |
| MATRIX | Water |
| EXTRACTED | 06/24/93 |
| ANALYZED | 06/25/93 |

ND = Not detected at 10 ppb
ND* = Not detected at 20 ppb

COMMENTS:

Approved by: George A. Dust
Vice President

METLAB Testing Services, Inc.
10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 9306294-02B

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — ID 8H COMPOSITE

BASE/NEUTRAL EXTRACTABLES FOR TTO BY METHOD 625

| PARAMETER | RESULT | PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|---|---|
| ACENAPHTHENE | ND | ACENAPHTHYLENE | ND | ANILINE | ND |
| ANTHRACENE | ND | BENZIDINE | ND | BENZO(A)ANTHRACENE | ND |
| BENZO(A)PYRENE | ND | BENZO(B)FLUORANTHENE | ND | BENZO(GHI)PERYLENE | ND*** |
| BENZO(K)FLUORANTHENE | ND | BENZYL ALCOHOL | ND* | BENZYLBUTYL PHTHALATE | ND |
| BIS(2-CHLORETHOXY)METHANE | ND | BIS(2-CHLOROETHYL)ETHER | ND | BIS(2-CHLORISOPROPYL)ETHER | ND |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 4-BROMOPHENYL PHENYL ETHER | ND | CARBAZOLE | ND* |
| 4-CHLOROANILINE | ND* | 2-CHLORONAPHTHALENE | ND | 4-CHLOROPHENYL PHENYL ETHER | ND |
| CHRYSENE | ND | DIBENZO(A,H)ANTHRACENE | ND | DIBENZOFURAN | ND |
| 1,2-DICHLOROBENZENE | ND | 1,3-DICHLOROBENZENE | ND | 1,4-DICHLOROBENZENE | ND |
| 3,3-DICHLOROBENZIDINE | ND* | DIETHYL PHTHALATE | ND | DIMETHYL PHTHALATE | ND |
| DI-N-BUTYL PHTHALATE | ND | DINITROBENZENE | ND** | 2,4-DINITROTOLUENE | ND |
| 2,6-DINITROTOLUENE | ND | DI-N-OCTYL PHTHALATE | ND | 1,2-DIPHENYLHYDRAZINE | ND* |
| FLUORANTHENE | ND | FLUORENE | ND | HEXACHLOROBENZENE | ND |
| HEXACHLOROBUTADIENE | ND | HEXACHLOROCYCLOPENTADIENE | ND | HEXACHLOROETHANE | ND |
| INDENO(1,2,3-CD)PYRENE | ND | ISOPHORONE | ND | 2-METHYLNAPHTHALENE | ND |
| NAPHTHALENE | ND | 2-NITROANILINE | ND*** | 3-NITROANILINE | ND*** |
| 4-NITROANILINE | ND* | NITROBENZENE | ND | N-NITROSODIPHENYLAMINE | ND |
| N-NITROSODIPROPYLAMINE | ND | PHENANTHRENE | ND | 2-PICOLINE | ND*** |
| PYRENE | ND | PYRIDINE | ND*** | TETRACHLOROBENZENE(S) | ND |
| TOLUENDIAMINE | ND* | 1,2,4-TRICHLOROBENZENE | ND | | |

**Detection Limits:**

ND = NOT DETECTED AT DETECTION LIMIT 10 ppb.
ND* = NOT DETECTED AT DETECTION LIMIT 20 ppb.
ND** = NOT DETECTED AT DETECTION LIMIT 40 ppb.
ND*** = NOT DETECTED AT DETECTION LIMIT 50 ppb.

**Notes and Definitions:**

ANALYST PNT
UNITS ppb
EXTRACTED 06/24/93
ANALYZED 06/25/93

Approved by: George A. Dust
Vice President

METLAB Testing Services, Inc.

10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 9306294-02B

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — ID 8H COMPOSITE

QA/QC FOR BASE/NEUTRAL EXTRACTABLES FOR TTO BY METHOD

| SURROGATE | %RECOVERY |
|---|---|
| 2-FLUOROBIPHENYL | 48 |
| NITROBENZENE-D5 | 48 |
| TERPHENYL-D14 | 54 |

QA/QC RESULTS

| PARAMETER | DUPLICATE DUPA | DUPLICATE DUPB | SPIKE % RECOVERY |
|---|---|---|---|
| ACENAPHTHENE | 47 | 42 | 47 |
| N-NITROSODIPROPYLAMINE | 45 | 36 | 45 |
| PYRENE | 55 | 64 | 64 |
| 1,2,4-TRICHLOROBENZENE | 58 | 40 | 58 |
| 1,4-DICHLORBENZENE | 40 | 27 | 40 |
| 2,4-DINITROTOLUENE | 48 | 62 | 62 |

Results obtained from a sample in the same batch.

All units are in ppb

COMMENTS:

Approved by: George A. Dust
Vice President

METLAB Testing Services, Inc.

10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-3870 — SAM# 9306294-02B

ATTN: MOHAN ASTHANA — DATE RECEIVED: 06/21/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 06/19/93 — ID 8H COMPOSITE

## VOLATILES FOR TTO BY METHOD 624

| PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|
| ACROLEIN | ND** | ACRYLONITRILE | ND** |
| BENZENE | ND | CARBON TETRACHLORIDE | ND |
| CHLOROBENZENE | ND | 1,2-DICHLOROETHANE | ND |
| 1,1,1-TRICHLOROETHANE | ND | 1,1-DICHLOROETHANE | ND |
| 1,1,2-TRICHLOROETHANE | ND | 1,1,2,2-TETRACHLOROETHANE | ND |
| CHLOROETHANE | ND* | 2-CHLOROETHYLVINYL ETHER | ND* |
| CHLOROFORM | ND | 1,1-DICHLOROETHYLENE | ND |
| 1,2-TRANS-DICHLOROETHYLENE | ND | 1,2-DICHLOROPROPANE | ND |
| CIS-1,3-DICHLOROPROPYLENE | ND | TRANS-1,3-DICHLOROPROPYLENE | ND |
| ETHYLBENZENE | ND | METHYLENE CHLORIDE | ND |
| METHYL CHLORIDE | ND* | METHYL BROMIDE | ND* |
| BROMOFORM | ND | DICHLOROBROMOMETHANE | ND |
| CHLORODIBROMOMETHANE | ND | TETRACHLOROETHYLENE | ND |
| TOLUENE | ND | TRICHLOROETHYLENE | ND |
| VINYL CHLORIDE | ND* | | |

**DETECTION LIMITS:**

ND = NOT DETECTED AT DETECTION LIMIT 10
ND* = NOT DETECTED AT DETECTION LIMIT 20
ND** = NOT DETECTED AT DETECTION LIMIT 50

| SURROGATE | %RECOVERY |
|---|---|
| 1,2-DICHLOROETHANE-D4 | 103 |
| TOLUENE-D8 | 106 |
| BROMOFLUOROBENZENE | 100 |

All results reported in PPB unless otherwise specified.
Should you have any questions, please feel free to call.

COMMENTS:

Approved by: G. A. Dust
George A. Dust
Vice President

ME.LAB Testing Services, Inc.
10835 East Independence Suite 102, Tulsa, Oklahoma 74116-5(
(918) 234-7111 Fax (918) 234-7152

# CHAIN OF CUSTODY RECORD - SAMPLE ANALYSIS REQUEST

MTS

CLIENT: THOMAS & BETTS CORPORATION
CONTACT NAME: MOHAN ASTHANA
ADDRESS: 9932 E. 58th St., Tulsa, OK 74146
PHONE #: (918) 252-0466
FAX: (918) 250-8201

LAB #: 93-06-294 93-3870
P.O. #:
BILLING ADDRESS:
FAX #:

SAMPLERS SIGNATURE: [signature]

ANALYSES REQUESTED

| NO. | SAMPLE IDENTIFICATION | DATE | TIME | SAMPLE TYPE | NUMBER OF CONTAINERS | BOD5 | COD | TSS | TOTAL Kjeldahl NITROGEN | NITRATE + NITRITE | TOTAL PHOSPHORUS | TTO | METAL | OIL & GREASE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | POINT SOURCE #1 (D) | 6/19 | 12:10 PM | 30 MTS. GRAB. | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | FOLLOW STORM WATER TESTING SCHEDULE |
| 02 | POINT SOURCE #1 (D) | 6/19 | 12:22 1 Pm 1:10 | COMPOSITE | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | FOLLOW STORM WATER TESTING SCHEDULE |
| | | | | | | | | | | | | | | | CHECK TTO @ 10 PPB OR LESS. |

| Relinquished by: | Date | Time | Received by: | Date | Time | Comments: |
|---|---|---|---|---|---|---|
| Phil Pace | 6/21/93 | 10:13AM | | | | |
| Relinquished by: | | | Received by: | | | |
| Relinquished by: | | | Received by: | | | |
| Relinquished by: | | | Received for lab by: Charlene Lawrence | 06/21/93 | 1010 | |

METHOD OF SHIPMENT (Circle one): FED EX UPS COURIER HAND-DELIVERY OTHER (Specify):

METLAB Testing Services, Inc.
10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

# METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5696 — SAM# 93-09-077

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/03/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/02/93 — PO# NOT SPECIFIED

In accordance with your instructions, chemical analysis was performed on samples submitted from your company on the above date. The results of the analysis are listed below.

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| SOURCE D STORMWATER COMP | TOTAL ARSENIC | <0.50 | mg/L | KEA | 09/13/93 | EPA 200.7 |
| . | BOD5 | 6 | mg/L | TNH | 09/03/93 | EPA 405.1 |
| . | TOTAL CADMIUM | <0.01 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | COD | 13.2 | mg/L | KEA | 09/07/93 | EPA 410.4 |
| . | TOTAL CHROMIUM | <0.01 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | TOTAL COPPER | 0.01 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | TOTAL KJELDAHL NITROGEN | <0.2 | mg/L | LTN | 09/08/93 | EPA 351.3.4 |
| . | ICP METALS PREPARATION | N/A | N/A | DM | 09/08/93 | EPA 3010 |
| . | TOTAL NICKEL | <0.02 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | NITRATE/NITRITE-NITROGEN | 0.367 | mg/L | LTN | 09/07/93 | EPA 353.2 |
| . | TOTAL LEAD | <0.10 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | TOTAL PHOSPHORUS | 0.02 | mg/L | TNH | 09/09/93 | EPA 365.3 |
| . | TOTAL SUSPENDED SOLIDS | 8 | mg/L | TNH | 09/08/93 | EPA 160.2 |
| SOURCE D STORMWATER GRAB | TOTAL ARSENIC | <0.50 | mg/L | KEA | 09/13/93 | EPA 200.7 |
| . | BOD5 | 10 | mg/L | TNH | 09/03/93 | EPA 405.1 |
| . | TOTAL CADMIUM | <0.01 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | COD | 68.8 | mg/L | KEA | 09/07/93 | EPA 410.4 |
| . | TOTAL CHROMIUM | <0.01 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| . | TOTAL COPPER | 0.06 | mg/L | DBJ | 09/14/93 | EPA 200.7 |

See the next page for more test results.

Approved by: Vernon Seaman — Dated: 09/15/93
George A. Dust
Vice President

METLAB Testing Services, Inc.
10835 E. Independence, Suite 102 • Tulsa, Oklahoma 74116-5673
918-234-7111 • 800-324-5757 • Fax 918-234-7152

MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5696 — SAM# 93-09-077

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/03/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/02/93 — PO# NOT SPECIFIED

SOURCE D STORMWATER GRAB CONTINUED FROM THE PREVIOUS PAGE. (PAGE 2 )

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| | TOTAL KJELDAHL NITROGEN | 0.83 | mg/L | LTN | 09/08/93 | EPA 351.3.4 |
| | ICP METALS PREPARATION | N/A | N/A | DM | 09/08/93 | EPA 3010 |
| | TOTAL NICKEL | <0.02 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| | NITRATE/NITRITE-NITROGEN | 0.764 | mg/L | LTN | 09/07/93 | EPA 353.2 |
| | OIL AND GREASE | 4 | mg/L | LTN | 09/10/93 | EPA 413.1 |
| | TOTAL LEAD | <0.10 | mg/L | DBJ | 09/14/93 | EPA 200.7 |
| | pH | 6.35 | Std. | LTN | 09/03/93 | EPA 150.1 |
| | TOTAL PHOSPHORUS | 0.11 | mg/L | TNH | 09/09/93 | EPA 365.3 |
| | TOTAL SUSPENDED SOLIDS | 19 | mg/L | TNH | 09/08/93 | EPA 160.2 |

Should you have any questions, please feel free to call.

Approved by: Vernon Seaman — Dated: 09/15/93
George A. Dust
Vice President

MELAB Testing Services, Inc.
10835 East Independence Suite 102, Tulsa, Oklahoma 74116-56
(918) 234-7111 Fax (918) 234-7152

# CHAIN OF CUSTODY RECORD - SAMPLE ANALYSIS REQUEST

CLIENT: THOMAS & BETTS CORP.
CONTACT NAME: MOHAN ASTHANA.
ADDRESS: 9932 E. 58th St. SOUTH
TULSA OK - 74146
PHONE: (918) 252-0466.

LAB #: 93-5696 93-09-077
P.O. #:
BILLING ADDRESS:
FAX #: (918) 250-8201

POINT SOURCE "D" (1)

SAMPLERS SIGNATURE: [signature]

ANALYSES REQUESTED: AS, Cr, Cu, Pb, Cd, Ni

| NO. | SAMPLE IDENTIFICATION | DATE | TIME | SAMPLE TYPE | NUMBER OF CONTAINERS | REMARKS |
|---|---|---|---|---|---|---|
| 01 | Grab METAL | 9/2 | 8:50 | Grab 1st 30 Min | 1 | STORMWATER SAMPLES. |
| 02 | Grab pH BOD5, TSS | 9/2 | 8:50 | Grab 1st 30 Min | 1 | |
| 03 | Grab COD, T-PHOSP. NO2/NO3, TKN | 9/2 | 8:50 | Grab 1st 30 Min | 1 | |
| 04 | Grab OIL & Grease | 9/2 | 8:50 | Grab 1st 30 Min | 1 | |
| 05 | COMPOSITE METAL | 9/2 | 8:50 11:50 | COMPOSITE | 1 | |
| 06 | COMPOSITE pH, BOD5, TSS | 9/2 | 8:50 11:50 | COMPOSITE | 1 | |
| 07 | COMPOSITE COD, T. PHOSP, NO2/NO3 TKN | 9/2 | 8:50 11:50 | COMPOSITE | 1 | |

| | Date | Time | | Date | Time | Comments: |
|---|---|---|---|---|---|---|
| Relinquished by: Phil Pace | 9/3/93 | 1135AM | Received by: | | | |
| Relinquished by: | | | Received by: | | | |
| Relinquished by: | | | Received by: | | | |
| Relinquished by: | | | Received for lab by: Charlene Laurence | 09/03/93 | 1135 | |

METHOD OF SHIPMENT (Circle one): FED EX UPS COURIER HAND-DELIVERY OTHER (Specify):

# REFERENCE 20

Form Approved. OMB No. 2050-0039. Expires 9-30-91

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. 0 K D 0 7 0 0 3 8 8 2 3 Manifest Document P E 2

2. Page 1 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address THOMAS & BETTS CORPORATION
9932 E. 58th STREET. SOUTH, TULSA, OK 74146

4. Generator's Phone ( 918 ) 252-0466

A. State Manifest Document Number

B. State Generator's ID 72023

5. Transporter 1 Company Name CKC, INCORPORATED

6. US EPA ID Number CAD 980584510

C. State Transporter's ID T-008090

D. Transporter's Phone 408-627-2595

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
WORLD RESOURCES COMPANY
8113 WEST SHERMAN STREET.
PHOENIX, AZ 85043

10. US EPA ID Number AZD 980735500

G. State Facility's ID RR 72002

H. Facility's Phone 602-233-9166

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ, HAZARDOUS WASTE SOLID, N.O.S., (F006), 9, NA3077, III | X | 002 | BA | 02593 | P | SN4542 F006 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
PLATING SLUDGE FROM WASTE WATER PRETREATMENT OPERATION

K. Handling Codes for Wastes Listed Above
01

15. Special Handling Instructions and Additional Information WEAR GOGGLES & GLOVES.
24 HOURS EMERGENCY RESPONSE 1-800-424-9300 CHEMTREC.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name MOHAN R. ASTHANA | Signature [signature] | Month Day Year 09 22 93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Dennis Portney | Signature [signature] | Month Day Year 09 22 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name NATIVIDAD DIAZ | Signature [signature] | Month Day Year 09 28 93

GENERATOR

TRANSPORTER

FACILITY

Style F15 REV-6 LABELMASTER, Div. of AMERICAN LABELMARK CO., CHICAGO, IL 60646

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

ORIGINAL — RETURN TO GENERATOR

...nt or type. (Form designed for use on elite (12 pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

# UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No. 0 K D 0 7 0 0 3 8 8 2 3

Manifest Document No. T P B 0 1

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS CORPORATION
9932 E. 58th Street South, Tulsa, OK 74146

4. Generator's Phone ( 918 ) 252-0466

A. State Manifest Document Number

B. State Generator's ID 72023

5. Transporter 1 Company Name
TRI STATE MOTOR TRANSIT

6. US EPA ID Number M O D 0 9 5 0 3 8 9 9 8

C. State Transporter's ID 3088

D. Transporter's Phone 1-800-641-7580

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
WORLD RESOURCES COMPANY
8113 West Sherman Street
Phoenix, AZ 85043

10. US EPA ID Number A Z D 9 8 0 7 3 5 5 0 0

G. State Facility's ID RR96002

H. Facility's Phone (602) 233-9166

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ,Hazardous waste, solid,N.O.S. (F006),9.NA 3077,III | X | 001 | BA | 0275 | P | SN4542 F006 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
PLATING SLUDGE

K. Handling Codes for Wastes Listed Above
01

15. Special Handling Instructions and Additional Information
***24 HOUR EMERGENCY RESPONSE: 1-800-424-9300 CHEMTREC***
WEAR GOGGLES AND GLOVES

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: MOHAN R. ASTHANA — Signature: [signature] — Month Day Year: 07 07 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: HUGH A. ELLIS — Signature: [signature] — Month Day Year: 12 07 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Natividad Diaz — Signature: [signature] — Month Day Year: 07 12 93

Style F15 REV-6 LABELMASTER, Div. of AMERICAN LABELMARK CO., CHICAGO, IL 60646

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

ORIGINAL — RETURN TO GENERATOR

print or type. (Form designed for use on eli[illegible]pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. 0 K D 0 7 0 0 3 8 8 2 3 — Manifest Document No. T N X 0 1

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS CORPORATION
9932 E. 58th Street, Tulsa, OK 74146

4. Generator's Phone ( 918 ) 252-0466

A. State Manifest Document Number

B. State Generator's ID 72023

5. Transporter 1 Company Name: TRI STATE MOTOR TRANSIT

6. US EPA ID Number: M O D 0 9 5 0 3 8 9 9 8

C. State Transporter's ID 3088

D. Transporter's Phone 800-641-7580

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
WORLD RESOURCES COMPANY
8113 W. Sherman Street, Phoenix, AZ 85043

10. US EPA ID Number: A Z D 9 8 0 7 3 5 5 0 0

G. State Facility's ID RR96002

H. Facility's Phone 602-233-9166

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ, HAZARDOUS WASTE, SOLID, N.O.S., ORM-E, NA 9189, F006 | X | 002 | BA | 02357 | P | F006 SN4542 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
Plating Sludge from Wastewater pretreatment system

K. Handling Codes for Wastes Listed Above
01
Wear goggles & Gloves

15. Special Handling Instructions and Additional Information
*** 24 HOUR EMERGENCY RESPONSE: 1-(800)-424-9300 CHEMTREC ***
Wear Goggles and Gloves

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed/Typed Name: DAVID B MORRISON — Signature: David B. Morrison — Month Day Year: 05 03 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: STEPHEN W DELL — Signature: Stephen W Dell — Month Day Year: 05 03 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: HAROLD E HENRY — Signature: Harold E Henry — Month Day Year: 05 10 93

Style F15 REV-6 LABELMASTER, Div. of AMERICAN LABELMARK CO., CHICAGO, IL 60646

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

ORIGINAL — RETURN TO GENERATOR

Print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OKD070038823 Manifest Document No. TNV01

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS CORPORATION
9932 East 58th St South Tulsa OK 74146

4. Generator's Phone (918) 252-0466

A. State Manifest Document Number

B. State Generator's ID 72023

5. Transporter 1 Company Name
CKC INCORPORATED

6. US EPA ID Number CAD980584510

C. State Transporter's ID T-001090

D. Transporter's Phone 408-627-2595

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
World Resources Company
8113 West Sherman Street
Phoenix, Arizona 85043

10. US EPA ID Number AZD980735500

G. State Facility's ID RR96002

H. Facility's Phone (602) 233-9166

GENERATOR

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ. HAZARDOUS WASTE SOLID, N.O.S. ORM-E, NA9189 (F006) | X | 002 | BA | 02498 | P | F006 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above
01

15. Special Handling Instructions and Additional Information
*** 24 HOUR EMERGENCY RESPONSE: 1-(800) 424-9300 CHEMTREC ***
WEAR GOGGLES AND GLOVES

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MOHAN R. ASTHANA | Signature: [signature] | Month Day Year: 02 08 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: David D Bearce | Signature: [signature] | Month Day Year: 02 08 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: NATIVIDAD DIAZ | Signature: [signature] | Month Day Year: 02 16 93

# REFERENCE 21

TEXAS WATER COMMISSION
P.O. Box 13087, Capitol Station
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-92

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD070038823
Manifest Document No.: 20744
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Thomas & Betts
9932 E. 58th St.
Tulsa, OK 74146

4. Generator's Phone (918) 252-0466

A. State Manifest Document Number: 492171
B. State Generator's ID: 72023

5. Transporter 1 Company Name: Safety-Kleen Corp.
6. US EPA ID Number: ILD051060408
C. State Transporter's ID: 3190
D. Transporter's Phone: 918-234-5185

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Corp.
1722 Cooper Creek Rd.
Denton, TX 76208
10. US EPA ID Number: TXD077603371
G. State Facility's ID: 65124
H. Facility's Phone: 817-383-2611

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ WASTE PAINT RELATED MATERIAL 3 UN1263 PG III (D001)(ERG#26) | X | 1 | DM | 164 | P | SN 4544 OUTS209H |
| b. | WASTE OIL AND WATER MIXTURE (NOT USDOT HAZARDOUS MATERIAL) | X | 1 | DM | 388 | P | SN 4543 OUTS2051 |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
11a. Control#0181899-7 Sample#249182 D001,D035
11b. Control#0181950-5 Sample#249181

K. Handling Codes for Wastes Listed Above: S01/S02/T50

15. Special Handling Instructions and Additional Information: Customer#6-193-01-9013 Preprint#
For all Safety-Kleen Shipments. Emerg Resp#708-888-4660 (24HR)
SK DOT #A: 1152 B: 1082 C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MOHAN R. ASTHANA
Signature: [signature]
Date: Month 10 Day 7 Year 93

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Scott Denton
Signature: Scott Denton
Date: Month 10 Day 7 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9—88) Previous edition is obsolete. White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy
TWC-0311 (Rev. 01/01/89)

6-193-01

Please print or type. (Form designed for use on e[illegible]2-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD 070038625
Manifest Document No.: 60052
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
5931 E 56TH ST
TULSA OK 74146
4. Generator's Phone ( 918 )252-0460

A. State Manifest Document Number
B. State Generator's ID: 72023

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: [illegible]
C. State Transporter's ID: 3190
D. Transporter's Phone: 918 234-5185

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP. 6-193-01
16315 E MARSHALL ST
TULSA OK 74116
10. US EPA ID Number: OKD 000763821
G. State Facility's ID: RR72002
H. Facility's Phone: 918 234-5185

GENERATOR

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)NA1993 PGIII(D001) (ERG#27) 6.7 LBS/GAL | X | 2 | DM | 25 | G | D001 D035 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
I(A) D018

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
9337 58998899 560092 6-193-01-9013 9301
IF UNDELIVERABLE,RETURN TO GENERATOR.FOR RECYCLE
EMERGENCY RESPONSE#708-886-4660 24HR.
SKDCT# A: 565 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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| Printed/Typed Name | Signature | Date Month Day Year |
|---|---|---|
| TONY LECHTEN BERG | Tony Lechtenberg | 9 16 93 |

TRANSPORTER

| 17. Transporter 1 Acknowledgement of Receipt of Materials | | Date |
|---|---|---|
| Printed/Typed Name | Signature | Month Day Year |
| SCOTT DENTON | Scott Denton | 9 16 93 |

| 18. Transporter 2 Acknowledgement of Receipt of Materials | | Date |
|---|---|---|
| Printed/Typed Name | Signature | Month Day Year |
| | | |

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Month Day Year |
|---|---|---|
| [illegible] | [illegible] | [illegible] |

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities, including reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

6-193-01

Please print or type. (Form designed for use on [illegible]2-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.: OKD 070[illegible]38823
Manifest Document [illegible]: 50906
2. Page 1 of -
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
9931 E 58TH ST
TULSA OK 74146
4. Generator's Phone ( 918 )252-0466

A. State Manifest Document Number
B. State Generator's ID: 72023

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 984908202
C. State Transporter's ID: 3190
D. Transporter's Phone: 918 234-5185

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP. 6-193-01
16319 E MARSHALL ST
TULSA OK 74116
10. US EPA ID Number: OKD 000763821
G. State Facility's ID: RR72002
H. Facility's Phone: 918 234-5185

GENERATOR

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)NA1993 PGIII(D001) (ERG#27) 6.7 LBS/GAL | X | 3 | DM | 48 | G | D001 D039 |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above
I(A) D018

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
9332 57586257 150908 6-193-01-9013 9301
IF UNDELIVERABLE,RETURN TO GENERATOR.FOR RECYCLE
EMERGENCY RESPONSE#708-888-4660 24HR.
SKDOT# A: 585 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| MOHAN R. ASTHANA | [signature] | 8 13 93 |

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| Scott DENTON | Scott Denton | 8 13 93 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| | | |

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| John Newman | John Newman | 8 13 93 |

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290 6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

TEXAS WATER COMMISSION 6-193-01
P.O. Box 13087, Capitol Station
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-92

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OKD070038823
Manifest Document No. 88504
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address THOMAS & BETTS
9932 E 56TH ST
TULSA OK 74146
4. Generator's Phone ( 918 ) 252-0466

A. State Manifest Document Number 588504
B. State Generator's ID 99940

5. Transporter 1 Company Name SAFETY-KLEEN CORP.
6. US EPA ID Number ILD 051060408
C. State Transporter's ID 40823
D. Transporter's Phone 918 234-5185

7. Transporter 2 Company Name Coc/City Cab
8. US EPA ID Number TXD 981145220
E. State Transporter's ID
F. Transporter's Phone 817 882-5412

9. Designated Facility Name and Site Address SAFETY-KLEEN CORP.
1722 COOPER CREEK ROAD
DENTON, TX 76208
10. US EPA ID Number 0-006-18 TXD 077603371
G. State Facility's ID 65124
H. Facility's Phone 817 383-2611

GENERATOR

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | RQ WASTE COMBUSTIBLE LIQUID, N.O.S. (ALIPHATIC AND AROMATIC HYDROCARBONS) NA1993 (D018) (ERG #27) | 1 | DM | 187 | P | SN4543 919270 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
11A.Control#0078867-4 Sample#107028

K. Handling Codes for Wastes Listed Above
M141 M061

15. Special Handling Instructions and Additional Information 0000 46436341 000000 6-193-01-9013
EMERGENCY RESP#708-888-4660 24HR IF UNDELIVERABLE RETURN TO GENERATOR
SKDOT# A: 3097 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: MOHAN R. ASTHANA
Signature: MRAsthana
Date: Month 06 Day 28 Year 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: J.M. LAWSON
Signature: J.M. Lawson
Date: Month 06 Day 28 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tim Johnson
Signature: Tim Johnson
Date: Month 07 Day 01 Year 93

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: RANDALL ANDERSON
Signature: Randall Anderson
Date: Month 7 Day 1 Year 93

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete. White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy
TWC-0311 (Rev. 01/01/89)

TEXAS WATER COMMISSION 6-193-01
P.O. Box 13087, Capitol Station
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD070038825
Manifest Document No.: 61113
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: THOMAS G BETTS
9932 E 58TH ST
TULSA OK 74146
4. Generator's Phone (918) 252-0466

A. State Manifest Document Number: 661113
B. State Generator's ID: 99940

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 051060408
C. State Transporter's ID: 40823
D. Transporter's Phone: 918 234-5185

7. Transporter 2 Company Name: Coal City Cob
8. US EPA ID Number: IRD 981195720
E. State Transporter's ID: 40010
F. Transporter's Phone: 800 872-5412

9. Designated Facility Name and Site Address: SAFETY-KLEEN CORP.
1722 COOPER CREEK ROAD
DENTON, TX 76208
10. US EPA ID Number: 0-006-18
TXD 077603371
G. State Facility's ID: 65124
H. Facility's Phone: 817 383-2611

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. RQ WASTE PAINT REALTED MATERIAL 3 UN1263 PG II (F003)(ERG#26) | X | 1 | DM | 178 | P | SN4544 910650 |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above: 11a. Control#0078892-6 Sample#107029 F003, D001

K. Handling Codes for Wastes Listed Above: P=Pounds
TN141 TN061

15. Special Handling Instructions and Additional Information: 0000 53143327 000000 6-193-01-9013
EMERGENCY RESP#708-888-4660 24HR IF UNDELIVERABLE RETURN TO GENERATOR
SKDOT# A: 1166 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: MOHAN R- ASTHANA
Signature: [signature]
Date: Month 06 Day 28 Year 93

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: J.M. LAWSON
Signature: J. M. Lawson
Date: Month 06 Day 28 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tim Johnson
Signature: Tim Johnson
Date: Month 07 Day 01 Year 93

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: RANDALL ANDERSON
Signature: Randall Anderson
Month 7 Day 1 Year 93

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9—88) Previous edition is obsolete. White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy
TWC-0311 (Rev. 01/01/89)

6-193-01

Please print or type. (Form designed for use on 12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD 070038823
Manifest Document No.: 77428
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
9931 E 58TH ST
TULSA OK 74146
4. Generator's Phone ( 918 )252-0466

A. State Manifest Document Number
B. State Generator's ID: 72023

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 051060408
C. State Transporter's ID: 3190
D. Transporter's Phone: 918 234-5185

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP. 6-193-01
16319 E MARSHALL ST
TULSA OK 74116
10. US EPA ID Number: OKD 000763821
G. State Facility's ID: RR72002
H. Facility's Phone: 918 234-5185

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. RQ WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001) (ERG#27) 6.7 LBS./GAL | X | 1 | DM | 28 | G | D001 SW4541 D039 |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above
I(A) D018
187.6

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information 9325 55552921 577428 6-193-01-9013 9401
IF UNDELIVERABLE, RETURN TO GENERATOR. FOR RECYCLE
EMERGENCY RESPONSE#708-888-4660 24HR.
SKDOI# A: 501 B: C: D:

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| MOHAN R. ASTHANA | MR Asthana | 06 25 93 |

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| J.M. LAWSON | J.M. Lawson | 06 25 93 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| | | |

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| Brian Hoffman | [illegible] | 06 28 93 |

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290 6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40 PART 262 20

6-193-01

Please print or type. (Form designed for use on [illegible] 12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD 070038823
Manifest Document No.: 66301
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
9931 E 58TH ST
TULSA OK 74146
4. Generator's Phone ( 918 ) 252-0466

A. State Manifest Document Number
B. State Generator's ID: 72023

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 051060408
C. State Transporter's ID: 3190
D. Transporter's Phone: 918 234-5185

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP.
16319 E MARSHALL ST
TULSA OK 74116
10. US EPA ID Number: 6-193-01 OKD 000763821
G. State Facility's ID: RR72002
H. Facility's Phone: 918 234-5185

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. RQ WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001) (ERG#27) 6.7 LBS./GAL | X | 3 | DM | 47 | G | D001 SN4541 D039 |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above: I(A) D018

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information 9320 54163761 166301 6-193-01-9013 9401
IF UNDELIVERABLE, RETURN TO GENERATOR, FOR RECYCLE
EMERGENCY RESPONSE#708-888-4660 24HR.
SKDOT# A: 501 B: C: D:

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MOHAN R. ASTHANA
Signature: [signature]
Date: Month 05 Day 20 Year 93

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: J. M. LAWSON
Signature: [signature]
Date: Month 05 Day 20 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Dean Hoffender
Signature: [signature]
Date: Month 05 Day 21 Year 93

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average 30 minutes for generators, 15 minutes for transporters, and 15 minutes for treatment, storage and disposal facilities. Time includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM. REFER CODE OF FEDERAL REGULATIONS. 40. PART 262.20.

6-193-01

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# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD 070038823
Manifest Document No.: 90287
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
9931 E 58TH ST
TULSA OK 74146

4. Generator's Phone ( 918 ) 252-0466

A. State Manifest Document Number

B. State Generator's ID: 72023

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 051060408

C. State Transporter's ID: 3190
D. Transporter's Phone: 918 234-5185

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP.
16319 E MARSHALL ST
TULSA OK 74116

10. US EPA ID Number: 6-193-01
OKD 000763821

G. State Facility's ID: RR72002
H. Facility's Phone: 918 234-5185

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)NA1993 PGIII(D001) (ERG#27) | X | 2 | DM | 30 | G | D001 D039 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
I(A) D018

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information 9313 52152055 590287 6-193-01-9013 9401
IF UNDELIVERABLE,RETURN TO GENERATOR.FOR RECYCLE
EMERGENCY RESPONSE#708-888-4660 24HR.
SKDOT# A: 501 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MOHAN R. ASTHANA
Signature: [signature]
Date: Month 03 Day 30 Year 93

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: J.M. LAWSON
Signature: J. M. Lawson
Date: Month 03 Day 30 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: John Norman
Signature: [signature]
Month 04 Day 01 Year 93

SAFETY-KLEEN CORP.

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

90290

6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 15 minutes for treatment, storage and disposal facilities, and 10 minutes for recycling facilities, including the time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS 40, PART 262-20

6-193-01

Please print or type. (Form designed for use on [redacted] 2-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OKD 070038823
Manifest Document [redacted] 78798
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
9931 E 58TH ST
TULSA OK 74146
4. Generator's Phone ( 918 )252-0466

A. State Manifest Document Number
B. State Generator's ID 72023

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 051060408
C. State Transporter's ID 3190
D. Transporter's Phone 918 234-5185

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP. 6-193-01
16319 E MARSHALL ST
TULSA OK 74116
10. US EPA ID Number: OKD 000763821
G. State Facility's ID RR72002
H. Facility's Phone 918 234-5185

GENERATOR

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)NA1993 PGIII(D001) (ERG#27) | X | 03 | DM | 268 | P | D001 D039 |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above
I(A) D018

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information 9308 50754472 178798 6-193-01-9013 9301
IF UNDELIVERABLE,RETURN TO GENERATOR.FOR RECYCLE
EMERGENCY RESPONSE#708-888-4660 24HR.
SKDOT# A: 501 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: ANTHONY E. LECHTENBERG
Signature: Anthony E. Lechtenberg
Date (Month Day Year): 02 25 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: BOB CLEMENTS
Signature: Bob Clements
Date (Month Day Year): 02 25 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: BRIAN HOFFENDER
Signature
Date (Month Day Year): 02 26 93

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

6-193-01

Please print or type. (Form designed for use on (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-94

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: OKD 070038823
Manifest Document No.: 27748
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
THOMAS & BETTS
9931 E 58TH ST
TULSA OK 74146
4. Generator's Phone ( 918 )252-0466

A. State Manifest Document Number
B. State Generator's ID: 72023
C. State Transporter's ID: 3190
D. Transporter's Phone: 918 234-5185
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID: RR72002
H. Facility's Phone: 918 234-5185

5. Transporter 1 Company Name: SAFETY-KLEEN CORP.
6. US EPA ID Number: ILD 051060408
7. Transporter 2 Company Name
8. US EPA ID Number
9. Designated Facility Name and Site Address
SAFETY-KLEEN CORP.
16319 E MARSHALL ST
TULSA OK 74116
10. US EPA ID Number: 6-193-01 OKD 000763821

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | WASTE COMBUSTIBLE LIQUID,N.O.S. (MINERAL SPIRITS) NA1993 PGIII (D001) (ERG#27) | 002 | DM | 00033 | G | D001 D039 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above: I(A) D018
K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
9301 48768725 627748 6-193-01-9013 9301
IF UNDELIVERABLE,RETURN TO GENERATOR.FOR RECYCLE
EMERGENCY RESPONSE#708-888-4660 24HR.
SKDOT# A: 501 B: C: D:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: MOHAN R. ASTHANA
Signature: [signature]
Date: Month 01 Day 04 Year 93

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Bob CLEMENTS
Signature: [signature]
Date: Month 01 Day 04 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Brian [signature]
Signature: [signature]
Month 01 Day 05 Year 93

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 9-88) previous editions obsolete

SAFETY-KLEEN CORP.

90290

6

ORIGINAL-RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM. REFER CODE OF FEDERAL REGULATIONS 40, PART 262.20

# REFERENCE 22

# World Resources Company
# Recyclable Material Profile

**Exhibit A**

## A. Generator Information:

Acct. #: W243C

1. Generator: Thomas & Betts Corporation
2. Address: 9932 East 58th Street South, Tulsa, Oklahoma 74146
3. Contact: Mr. Mohan Raj, Asthana
Title: Sup. Environmental & Manufact.
Phone: 918/252-0466

4. Description of Recyclable Material and EPA Code Number: F006
5. Generator's U.S. EPA ID Number: OKD070038823
6. Generator's State ID Number: 72023

## B. Recyclable Material Characteristics:

1. COLOR(s): Brown, Green

2. ODOR: None [X] Mild [ ] Strong [ ]
Description of Odor:

3. PHYSICAL STATE (Ambient): [X] Solid [ ] Liquid
Consistency similar to: [ ] Sand [X] Wet Clay [ ] Other
Viscosity similar to: [ ] Water [ ] Oil [ ] Honey
% Solids: 93.50%

4. PHYSICAL COMPOSITION: [ ] Multi-layered [ ] Bi-layered [X] Homogeneous

5. FREE LIQUIDS PRESENT: (EPA SW 846, Method 9095) [ ] Yes [X] No

6. pH TEST: (EPA SW 846, Method 9040)
pH: 7.71

7. SELECTED ORGANIC SOLVENTS: [X] Not Detected [ ] Detected ____ ppm
Type

8. IGNITIBILITY (40 CFR §261.21(a)(2)) [ ] Ignitable [X] Not Ignitable

## C. Recyclable Material Composition:

| SELECTED CONSTITUENTS | EPA Approved Analytical Methods in SW 846 * | | Specify Total PPM or % on Dry Basis |
|---|---|---|---|
| 1. Cadmium | 6010 or 7130 | 10,000 | 4.3 ppm |
| 2. Chromium, Total | 6010 or 7090 | 10,000 | 1280 ppm |
| 3. Chromium, Hexavalent | 7195, 7196 or 7197 | 10,000 | 0 ppm |
| 4. Cyanide, Total | 9010 | 100 | 0 ppm |
| 5. Cyanide, Amenable | 9010 | | 0 ppm |
| 6. Nickel | 6010 or 7520 | 10K | 10053 ppm |

**METALS** (Total PPM or %, on dry basis. Determinations made by quantitative analysis.)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1. Aluminum | (Al) | 6035 ppm | n/a | 6. Bismuth | (Bi) | 81 ppm | 100 | 11. Selenium | (Se) | 19 ppm |
| 10,000 | 2. Antimony | (Sb) | 169 ppm | — | 7. Copper | (Cu) | 56898 ppm | 100 | 12. Silver | (Ag) | 2967 ppm |
| 10,000 | 3. Arsenic | (As) | 6.9 ppm | — | 8. Iron | (Fe) | 119291 ppm | n/A | 13. Tin | (Sn) | 100500 ppm |
| 1,0 | 4. Barium | (Ba) | 130 ppm | 10K | 9. Lead | (Pb) | 487 ppm | 10 | 14. Zinc | (Zn) | 19492 ppm |
| 10,000 | 5. Beryllium | (Be) | 1.1 ppm | 10K | 10. Mercury | (Hg) | 0.6 ppm | | | | |

**HALOGENS** (Total PPM or %, on dry basis. Determinations made by quantitative analysis.)

1. Chloride (Cl) 0.36 %
2. Fluoride (F) 0.12 %

* Test Methods for Evaluating Solid Waste, EPA Publication SW 846, 2nd Edition (e.g. Inductively Coupled Argon Plasma Emission Spectrometer or Atomic Absorption Spectrophotometer).

I hereby certify that all information submitted in this profile is complete and accurate to the best of my knowledge and belief.

Signed: Patricia P. Nelson
Company: WORLD RESOURCES COMPANY
Date: 08/11/93
Title: Technical Manager

Copyright ©1989 World Resources Company Rev. 8/5/93

# REFERENCE 23

# RECORD OF COMMUNICATION

**Reference 23**

**TYPE:** Phone Call **DATE:** 11/9/93 **TIME:** 9:26 a.m.

**TO:** Stephanie
U.S. Army Corp. of
Engineers, Tulsa, OK

**FROM:** Gregory Hoffmann, ARCS Task
Manager, ICF Technology, Inc.
(214) 979-3931

**SUBJECT:** Flood Plain Information for Thomas & Betts Corporation.

**SUMMARY OF COMMUNICATION:**

The site is list as being Zone C, outside of any flood zone. It is listed on the November 20, 1991 Flood Map, Community 405381, Panel 0070F.

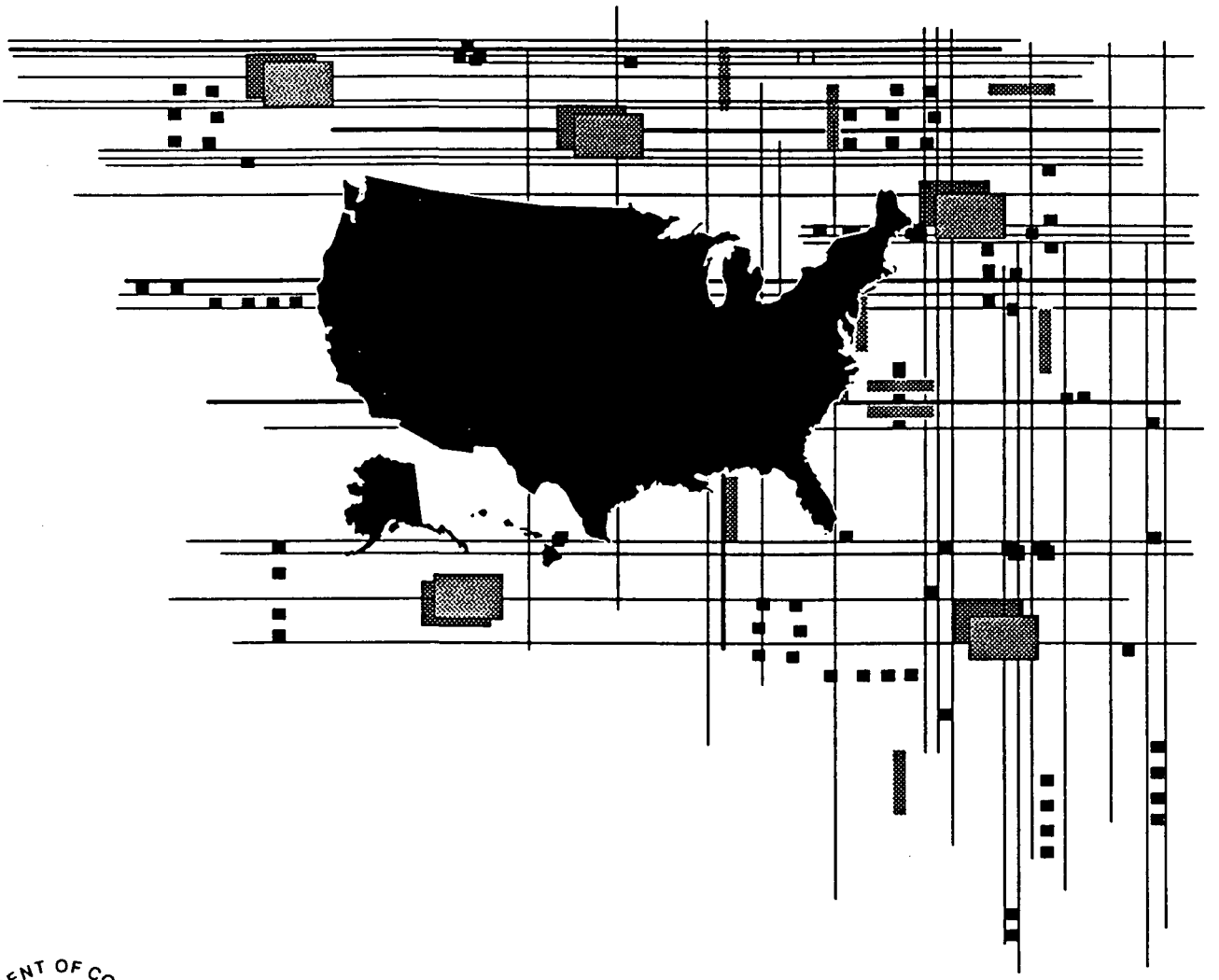
# REFERENCE 24

CURRENT POPULATION REPORTS

**Special Studies**

Series P-23, No. 156

# Estimates of Households, for Counties: July 1,1985



U.S. Department of Commerce
BUREAU OF THE CENSUS

## Table 1. Estimates of Households, for Counties: July 1, 1985—Continued

(A dash (-) represents zero or rounds to zero. Estimates are consistent with special censuses since 1980. Corrections to 1980 census counts are not included. See text concerning rounding and average population per household)

| State and county | Households | | | | Average population per household | | Population | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | July 1, 1985 (estimate) | April 1, 1980 (census) | Change, 1980-85 Number | Change, 1980-85 Percent | July 1, 1985 (estimate) | April 1, 1980 (census) | July 1, 1985 (estimate) | April 1, 1980 (census) | Change, 1980-85 Number | Change, 1980-85 Percent |
| **Oklahoma—Continued** | | | | | | | | | | |
| Garvin | 11,400 | 10,511 | 900 | 8.9 | 2.53 | 2.55 | 30,000 | 27,856 | 2,200 | 7.7 |
| Grady | 16,300 | 14,302 | 2,000 | 13.8 | 2.72 | 2.71 | 45,000 | 39,490 | 5,500 | 14.0 |
| Grant | 2,600 | 2,656 | - | -0.8 | 2.48 | 2.41 | 6,600 | 6,518 | 100 | 2.0 |
| Greer | 2,900 | 2,868 | - | 1.2 | 2.26 | 2.28 | 7,000 | 7,028 | - | 0.3 |
| Harmon | 1,800 | 1,758 | - | 1.4 | 2.43 | 2.47 | 4,500 | 4,519 | - | -0.3 |
| Harper | 2,000 | 1,905 | 100 | 3.2 | 2.39 | 2.44 | 4,800 | 4,715 | - | 0.9 |
| Haskell | 4,700 | 4,191 | 500 | 12.5 | 2.51 | 2.61 | 11,900 | 11,010 | 900 | 8.5 |
| Hughes | 5,700 | 5,588 | 100 | 1.9 | 2.54 | 2.53 | 14,700 | 14,338 | 400 | 2.7 |
| Jackson | 11,600 | 10,543 | 1,000 | 9.7 | 2.61 | 2.77 | 31,200 | 30,356 | 800 | 2.8 |
| Jefferson | 3,200 | 3,174 | - | 0.9 | 2.48 | 2.53 | 8,100 | 8,183 | -100 | -0.7 |
| Johnston | 4,200 | 3,831 | 400 | 10.2 | 2.50 | 2.61 | 10,900 | 10,356 | 500 | 5.2 |
| Kay | 20,800 | 19,431 | 1,400 | 7.0 | 2.48 | 2.51 | 52,800 | 49,852 | 2,900 | 5.8 |
| Kingfisher | 5,900 | 5,161 | 700 | 13.5 | 2.73 | 2.72 | 16,100 | 14,187 | 1,900 | 13.6 |
| Kiowa | 5,200 | 5,042 | 100 | 2.4 | 2.41 | 2.48 | 12,700 | 12,711 | - | -0.3 |
| Latimer | 3,700 | 3,398 | 300 | 7.8 | 2.69 | 2.71 | 10,400 | 9,840 | 600 | 5.6 |
| Le Flore | 16,100 | 14,484 | 1,600 | 11.0 | 2.68 | 2.75 | 44,000 | 40,698 | 3,300 | 8.0 |
| Lincoln | 11,000 | 9,649 | 1,400 | 14.4 | 2.70 | 2.73 | 30,100 | 26,601 | 3,500 | 13.2 |
| Logan | 10,700 | 9,414 | 1,300 | 14.2 | 2.72 | 2.70 | 31,100 | 26,881 | 4,200 | 15.6 |
| Love | 3,100 | 2,834 | 300 | 10.7 | 2.54 | 2.64 | 8,000 | 7,469 | 500 | 6.7 |
| McClain | 8,800 | 7,066 | 1,700 | 23.9 | 2.79 | 2.84 | 24,700 | 20,291 | 4,400 | 21.5 |
| McCurtain | 12,800 | 12,366 | 400 | 3.2 | 2.82 | 2.89 | 36,500 | 36,151 | 300 | 0.9 |
| McIntosh | 7,000 | 5,935 | 1,100 | 17.9 | 2.45 | 2.57 | 17,500 | 15,562 | 2,000 | 12.5 |
| Major | 3,500 | 3,272 | 200 | 6.4 | 2.64 | 2.65 | 9,300 | 8,772 | 500 | 6.0 |
| Marshall | 4,600 | 4,158 | 400 | 10.8 | 2.46 | 2.49 | 11,500 | 10,550 | 1,000 | 9.3 |
| Mayes | 12,600 | 11,622 | 1,000 | 8.6 | 2.73 | 2.72 | 35,200 | 32,261 | 2,900 | 9.0 |
| Murray | 4,900 | 4,537 | 400 | 8.2 | 2.55 | 2.57 | 13,100 | 12,147 | 900 | 7.7 |
| Muskogee | 26,500 | 24,736 | 1,700 | 7.1 | 2.60 | 2.64 | 70,600 | 66,939 | 3,700 | 5.5 |
| Noble | 4,500 | 4,348 | 200 | 3.7 | 2.57 | 2.60 | 11,900 | 11,573 | 300 | 2.6 |
| Nowata | 4,300 | 4,327 | -100 | -1.6 | 2.59 | 2.61 | 11,200 | 11,486 | -300 | -2.5 |
| Okfuskee | 4,300 | 4,127 | 200 | 4.3 | 2.63 | 2.62 | 11,700 | 11,125 | 500 | 4.8 |
| Oklahoma | 253,200 | 220,580 | 32,600 | 14.8 | 2.45 | 2.54 | 631,200 | 568,933 | 62,300 | 11.0 |
| Okmulgee | 15,000 | 14,314 | 700 | 4.6 | 2.55 | 2.61 | 40,000 | 39,169 | 800 | 2.1 |
| Osage | 15,100 | 14,382 | 700 | 4.7 | 2.69 | 2.68 | 41,300 | 39,327 | 1,900 | 4.9 |
| Ottawa | 13,100 | 12,244 | 800 | 6.7 | 2.50 | 2.57 | 34,100 | 32,870 | 1,200 | 3.7 |
| Pawnee | 6,400 | 5,745 | 700 | 11.4 | 2.63 | 2.65 | 16,900 | 15,310 | 1,600 | 10.7 |
| Payne | 23,700 | 22,119 | 1,600 | 7.1 | 2.35 | 2.40 | 65,100 | 62,435 | 2,700 | 4.3 |
| Pittsburg | 16,200 | 15,036 | 1,200 | 7.9 | 2.53 | 2.57 | 43,500 | 40,524 | 3,000 | 7.4 |
| Pontotoc | 13,500 | 12,268 | 1,200 | 10.1 | 2.48 | 2.54 | 35,000 | 32,598 | 2,400 | 7.5 |
| Pottawatomie | 22,900 | 20,062 | 2,800 | 14.0 | 2.65 | 2.67 | 62,200 | 55,239 | 6,900 | 12.5 |
| Pushataha | 4,700 | 4,355 | 300 | 7.6 | 2.58 | 2.67 | 12,300 | 11,773 | 500 | 4.1 |
| Roger Mills | 2,000 | 1,769 | 300 | 14.8 | 2.77 | 2.69 | 5,700 | 4,799 | 900 | 18.1 |
| Rogers | 18,900 | 15,650 | 3,300 | 21.0 | 2.88 | 2.94 | 55,200 | 46,436 | 8,700 | 18.8 |
| Seminole | 10,700 | 10,158 | 600 | 5.7 | 2.65 | 2.65 | 29,100 | 27,473 | 1,600 | 6.0 |
| Sequoyah | 12,100 | 10,473 | 1,600 | 15.1 | 2.81 | 2.90 | 34,300 | 30,749 | 3,500 | 11.4 |
| Stephens | 17,200 | 16,512 | 700 | 4.1 | 2.58 | 2.59 | 45,000 | 43,419 | 1,500 | 3.5 |
| Texas | 6,800 | 6,332 | 400 | 6.8 | 2.63 | 2.74 | 18,200 | 17,727 | 500 | 2.7 |
| Tillman | 4,500 | 4,681 | -200 | -3.5 | 2.49 | 2.58 | 11,600 | 12,398 | -800 | -6.5 |
| Tulsa | 205,000 | 181,620 | 23,400 | 12.9 | 2.45 | 2.54 | 512,000 | 470,593 | 41,400 | 8.8 |
| Wagoner | 16,900 | 13,768 | 3,100 | 22.7 | 2.95 | 3.02 | 50,100 | 41,801 | 8,300 | 19.9 |
| Washington | 18,500 | 18,750 | -200 | -1.3 | 2.47 | 2.53 | 46,400 | 48,113 | -1,700 | -3.6 |
| Washita | 5,300 | 5,138 | 200 | 2.9 | 2.63 | 2.64 | 14,200 | 13,798 | 400 | 2.6 |
| Woods | 4,300 | 4,425 | -100 | -2.0 | 2.31 | 2.33 | 10,600 | 10,923 | -300 | -3.0 |
| Woodward | 8,000 | 7,582 | 400 | 5.0 | 2.75 | 2.73 | 22,400 | 21,172 | 1,200 | 5.9 |
| **Oregon** | 1,044,000 | 991,593 | 53,000 | 5.3 | 2.52 | 2.60 | 2,686,000 | 2,633,105 | 53,000 | 2.0 |
| Baker | 6,400 | 6,169 | 200 | 3.6 | 2.45 | 2.58 | 15,900 | 16,134 | -300 | -1.8 |

# REFERENCE 25

0S523

# TULSA'S PHYSICAL ENVIRONMENT

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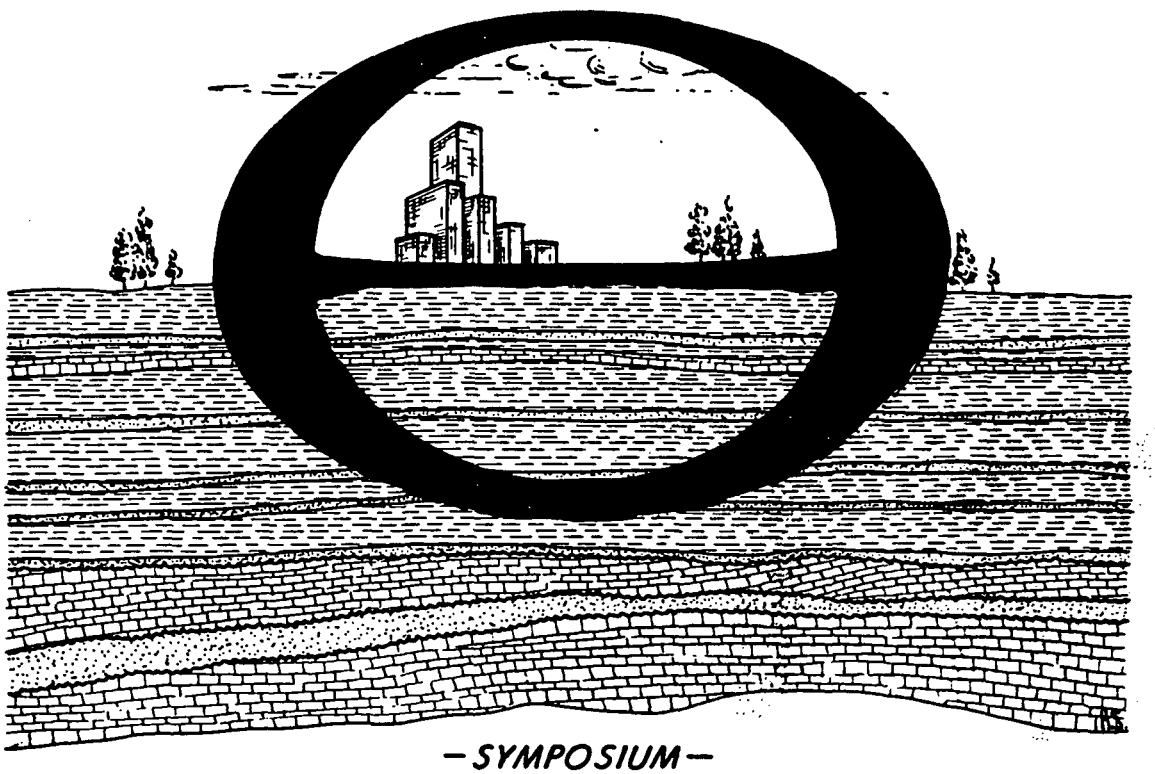

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# TULSA'S PHYSICAL ENVIRONMENT

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## SEMINOLE FORMATION

by A. P. Bennison

### ORIGIN OF NAME AND DISTINCTIVE CHARACTER

Members of an Indian tribe, the Seminoles, displaced from their Florida homeland to an Oklahoma reserve, provided the name for this formation. Its type area, as designated by Taff in 1901, is the southeast part of the Seminole Nation, now a county. He named the unit "Seminole conglomerate."

Its probable correlative in Tulsa County lacks its conglomerates and contains coals not reported in Seminole County. These differences are attributed to environmental facies changes. The Seminole Formation (basal Missourian and possibly latest Desmoinesian) of Tulsa County contains three distinct coal cycles with the lower (Dawson) coal the youngest commercial coal in this part of Oklahoma. It overlies the Holdenville Shale of Desmoinesian age, and is succeeded by the Checkerboard Limestone.

### AREAL EXTENT AND FORMATIONAL GEOMETRY

East of the Tulsa Civic Center the Crosstown Expressway cuts through three sandstone cuestas, that have their high points respectively near Utica, Pittsburg, and Sheridan Avenues. These are the three main sandstone members, upper, middle, and lower, of the Seminole Formation and each is succeeded upwards by clayey to sandy shale making up the sixfold division of the formation. Shales and sandstones almost equally compose the overall thickness of 180 to 220 feet.

South of the Crosstown Expressway the Seminole Formation becomes increasingly concealed by the spread of terrace sands that flank the Arkansas River Valley. Builders in downtown Tulsa have excavated or set concrete pillars through 20 to 50 feet of these soft Quaternary river and windblown sands and silts into the firm bedrock of the upper Seminole sandstone. The same sandstone has been exposed in the Arkansas River bed near Eleventh Street by downcutting of the river between Tenth and Twelfth Streets South in the last few thousand years. The thick middle sandstone, up to 85 feet thick, forms the main rock ledges in the heart of Tulsa and underlies both campuses of the University of Tulsa, part of the Tulsa Fairgrounds, Utica Square and the Philbrook Art Center. Small picturesque gorges are developed in it between Cascia Hall and Holland Hall and east of the Monte Cassino School. The lower sandstone apparently merges with the middle sandstone in the Southern Hills suburb to form a series of low rocky mesas, the site of many luxury homes. On the west bank of the Arkansas River, south of the Carbondale district, the various sandstone members are progressively revealed and together they form the conspicious steep east front of Turkey Mountain near Seventy-First Street. From here they continue south and southwestward through Glenpool to Mounds.

Although all the Seminole members vary considerably in thickness throughout Tulsa County, the cumulative thickness is generally within 20 feet of a 200-foot thickness. The upper sandstone is so thin in places that some stratigraphers include it and the adjacent shales in an upper sand shale section. The basal sandstone is extremely variable in thickness, ranging up to 100 feet west of Glenpool. It appears absent in an area northeast of Mounds. Northeast into Nowata County also, the basal sandstone disappears and the Lenapah Limestone occupies its position below the Dawson coal. The middle Seminole sandstone there becomes the lowest Seminole sandstone and probably is the Hepler Sandstone of Kansas.

### PALEOENVIRONMENTAL INTERPRETATION

Readers are referred to the excellent discussion on the depositional environment of the Seminole Formation by Krumme and Visher elsewhere in this volume. Decrease in thickness of the Seminole Formation and the disappearance of its basal sandstone northeastward into Nowata County and southeastern Kansas support their contention of a southern source for the Seminole sediments in Tulsa County.

If the Hepler is considered basal Missourian in Kansas and the shale underlying it is Desmoinesian then the lower Seminole shale, the probable correlation of the latter, may

# THE SEMINOLE FORMATION IN TULSA COUNTY

George W. Krumme [1] and Glenn S. Visher[2]

## Tulsa 300 Million Years Ago

Suddenly, on a previously uneventful morning, the towering lepidodendron trees along the north shore of the island shook and swayed. A sustained quivering of the sea carried succeeding tremors northward hundreds of miles across the shallows to the very southern shores of the continent. Several of the giant trees crashed to the ground, crushing the undergrowth of fern.

Despite the severity of the shock, all lay quiet when the quaking ceased. No forest creatures scurried in the undergrowth. No startled birds rose to escape the thrashing fronds. Only a few sluggish amphibians took quizzical note of the earthquake or of the swarm of giant dragonflies which rose briefly from the ferns. There were no others to notice. The event occurred some 300 million years ago; the precise date cannot be fixed.

The details are conjectural. We know, however, that some such event must have occurred, a harbinger of continued movements of the earth that initiated new mountain building in the island chain which then extended across southern Oklahoma. The only record available to us remains in the sediments washed from the north shore of the islands by the millions of tons in succeeding millenniums. (Whatever sediments may lie southward are buried too profoundly for even the deepest oil wells to reach.) The record is necessarily fragmentary and cryptic. Much of the sediment has been subsequently exposed and washed away to new resting places, and most of what remains lies buried under succeeding layers of sand and mud, now hardened into rock. All the available evidence is indirect, circumstantial, obscure. Nevertheless, even from a distance of 300 million years, eyes sharpened by study and imagination can envisage the sea that covered most of Oklahoma at that time, separating the chain of islands from the western arm of the infant North American continent which lay hundreds of miles to the north. Looking southward from Tulsa, they can visualize mountain crests extending along the horizon. The evidence is indirect, but convincing. The mountains were there. Storms came. The sea was filled.

The geographical features were not new. The islands were old. They had fed sand and mud northward for short distances in earlier ages of the Pennsylvanian Period (Tomlinson, 1959). However, the growth of the mountains which produced the Seminole sediments marked an epoch of new dimensions, one in which, for the first time, sediments were carried far north of Tulsa. Geologists have called this new span of time the Missourian Epoch because contemporaneous deposits were first identified in Missouri. The Seminole Formation, whose sandstones and shales underlie much of Tulsa, contains the first sedimentary layers of the Missourian strata.

## Bedrock Outcrops

During succeeding ages, all the Missourian layers were buried, compressed and hardened under several thousand feet of Upper Pennsylvanian and Permian sediments. During the general uplift which later exposed the southwestern portions of the United States, the Pennsylvanian and Permian beds were lifted and tilted downward to the west. It is on the beveled, irregular outcrop of the Seminole Formation, running almost north-south, that most of Tulsa has been built (see geologic map of Tulsa County). (The nature of the surface rocks had no direct influence on the choice of the townsite; it was located at the point where the Frisco railroad crossed the Arkansas River.)

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[2]Associate Professor of Geology, The University of Tulsa, Tulsa, Oklahoma

The outcrop of the Checkerboard limestone, which immediately overlies the Seminole, forms part of the caprock on Turkey Mountain southwest of the city, runs along the west side of the Arkansas River valley through West Tulsa, and, during periods of low water, extends like a strip of pavement across the river a short distance upstream from the Eleventh Street bridge. At the eastern edge of the Seminole outcrop, sandstones at the base of the Seminole form the resistant layers which cap the low hills along Sheridan Avenue. In the six mile interval between, the city lies on the outcrop of the Seminole, except where it is covered by alluvium along the river and by a veneer of older river deposits and wind-blown silt to the north and east of the river.

The Seminole Formation in Tulsa County consists of a basal sandstone, a lower shale zone, a middle sandstone, and an upper shale containing one or more sandstones. The sandstones vary in thickness and locally contain much shale. The lower shale zone contains a few streaks of limy sandstone, some minor limestone, and the Dawson coal. All shaly divisions of the Seminole contain thin layers of coal of restricted extent. The Seminole members vary considerably in thickness, but total thickness usually approximates 210 feet.

The Dawson coal is the only coal of commercial importance in the Missourian rocks in Oklahoma. Its maximum thickness is about 30 inches. It was formerly strip mined at several locations along the outcrop from Glenpool northward to a few miles past the county line. (The trash dumps along Yale Avenue west of the old Dawson townsite are filling some of the largest strip mines of the Dawson coal.) In addition, a few shaft and slope (drift) mines were dug, principally along Yale Avenue north of 21st Street (see paper on coal and coal mines elsewhere in this volume). The Dawson coal outcrop is mostly confined to Tulsa County, as are the thin coal stringers appearing at other levels in the Seminole. Richard L. Wilson describes these coals and their floras in an accompanying section of this symposium.

## Paleogeography

The presence of coal indicates that this area was a swamp forest during part of Seminole time. The shoreline must have retreated to the north of Tulsa during the times that the coal swamps flourished. On the other hand, the presence of marine fossils in shale portions of the Seminole as far south as Seminole County (Tanner, 1956) shows that the shoreline moved far south of Tulsa on other occasions.

## Maximum Grain Size

Several other lines of evidence help geologists piece together the story of the deposition of the Seminole. Maximum grain size in the sandstones is an interesting feature. In random samples taken in Tulsa County for this report, the average size of sand grains was found to be about 1/200 inch (1/8 mm.), and no individual grains were observed as large as 1/16". In Okfuskee County, 40 miles south of Tulsa, conglomeratic sandstones contain pebbles as large as 1" in diameter. Forty miles farther south, cobbles as large as 3" in diameter have been found at the type section east of Seminole, where the formation was initially described and named (Taff, 1901). The cobbles and pebbles are composed of weathered chert, an extremely hard form of precipitated quartz. No such pebbles are found in the Seminole north of Okmulgee County, but whitish flecks in some Tulsa County sandstones are believed to be smaller, deeply weathered particles of this chert (Oakes, 1952).

It is axiomatic that the largest particles carried by a stream are deposited nearest the source of the sediments. As the stream loses competence, it is unable to transport the larger particles, and an imperfect size grading of the largest particles is performed down the length of the water course. The size gradient observed in the Seminole outcrop indicates that the depositing currents flowed in a direction with a northerly component.

## Current Features

A characteristic which reveals the direction of stream transport is called a directional feature. The gradient of largest particles is therefore a directional feature. A review of other directional features is helpful in understanding how geologists have established from several lines of evidence that the Seminole sediments came from the south.

One directional feature commonly found in sandstone is current ripple marks. Ripple marks are formed much as large-scale sand waves and dunes are formed and moved by desert winds. The process is continuous, and, as the wave progresses steadily downstream, the ripple soon is composed completely of truncated layers (Fig. 1). The downstream side of ripples can be identified because it is steeper than the upstream side of the wave, and the downstream side is evident, for the laminations dip in the downstream direction. Current ripple marks are common in most sandstones, including the Seminole sandstones, and indicate the overall current flow.

The most commonly used directional feature is cross-bedding (Potter, 1963). There are two principal types of crossbedding, tabular and trough-shaped. A sandstone with tabular cross-bedding is composed of a series of inclined planes sandwiched between successive surfaces of accumulation (Fig. 2a). Trough cross-bedded bodies are composed of similar sets of laminations, but the laminations are curved (Fig. 2b). Trough cross-beds result from the filling of scour pits on the bottom of the stream by thin layers of sediment. The inclined beds of both types of cross-bedding slope downstream.

When viewed at the outcrop, the appearance of trough cross-beds depends on the structure of the individual trough and on the orientation of the trough at its exposure. (Fig. 2b).

All three aspects of trough cross-bedding (tabular, festoon and rib-and-furrow) can occasionally be seen in one outcrop where a block is exposed in three dimensions. The size of the individual troughs ranges from small scale of only a few inches to large troughs many feet across.

Trough cross-bedding in the Seminole Formation is more common and on a larger scale south of Okmulgee County (Fig. 3) where the beds were probably deposited by rivers. Examples of cross-bedding in Tulsa County are visible in exposures of sandstone near the intersection of 151st Street South and Peoria Avenue. At this point in the basal Seminole, the currents were flowing slightly north of west.

## Transport Directional Features

A map of directional features observed in a brief survey along the Seminole outcrop of Tulsa is shown in Fig. 4, while Fig. 5 shows the average of all the observations, which have been roughly weighted according to the certainty of the determination and the number of measurements. If the observations are sufficiently numerous to be statistically valid, the currents which deposited the Seminole south of Tulsa flowed generally north-northwest.

## Fossil Flora Distribution

Palynology, the study of pollen and other spores and their dispersal, is another useful tool in the investigation of sediments. Spores are minute reproductive bodies produced by many primitive land plants in various shapes and sizes, each characteristic of a particular species at a certain stage of its development. Virtually indestructible, spores are present in most ancient deposits. Since the shape of the spores of each species changed progressively with time in the evolutionary history of the species, identification and comparison of spores is an important means of correlation from well to well in areas of complex stratigraphy like the Gulf Coast.

Studies of spores can also help determine the position of shorelines in ancient sediments. Like modern seeds, the spores of primitive plants evolved differing characteristics to aid in their dissemination. Small, light spores and those with air sacs or feathery surfaces were more likely to be carried far from the parent plants by wind and water than were large, dense spores. A large concentration of heavy spores indicates that the deposits in which they are found were terrestrial or near-shore sediments.

Palynological studies show that the Seminole shoreline moved across Tulsa several times. (The presence of coal alternating with marine beds in the Tulsa area confirms this determination.) A study by Simpson (1969), for example, showed that the shoreline advanced twice across the area southwest of 51st and Union during the deposition of the top 23 feet of the Seminole. Although he did not attempt to determine the direction of the sediment sources, Simpson charted variations of environment from offshore marine to marsh and coal swamp (Fig. 6).

## Texture As An Indicator of Sediment Transport

Another tool useful in sedimentology is the analysis of the grain size distribution of sandstones (Visher, 1969). Different sedimentary processes evoke different responses, and the distribution and proportions of certain grain sizes in the sample of a sediment are functions of the process which formed the deposit.

The probable distribution of grain sizes in a single sample of sediment seems to follow certain relationships. A graph can be constructed by plotting cumulative percentage by weight of each group against the size of the group. The curve representing the texture can then be studied and compared to similar curves of modern sands, thus determining the method of transportation and deposition.

Grain size distribution analyses made of nine Seminole sand samples from Tulsa County indicate that the sands examined were fluvial or deltaic in origin (Fig. 7).

## Mapping of the Seminole Sandstone

As shown in Fig. 8, the Seminole zone can be traced westward downdip by electric log cross-sections. One feature of the cross-section is the shape of the spontaneous potential (SP) curves (on the left side of the electric log). The SP curve usually measures the relative sandiness of the sediment; the greater the departure of the SP curve from the center of the log, the more sandy is the sediment at that level. Furthermore, the abruptness with which the SP curve leaves the "shale line" at the center of the log is a reflection of the sharpness of the change in sand content vertically in the well. Thus a sharp angle in the SP curve indicates an abrupt lithological change in the formation (Visher, 1971).

It has been observed that fluvial and deltaic sandstones are more likely to exhibit abrupt changes in lithology at the base of the deposit than are marine sandstones. Rivers characteristically scour their beds before depositing clean, coarse sands. As the loops and meanders slowly cut their way downstream, the entire valley floor may become covered by these coarse basal sands. Finer sands deposited at the inside banks of the loops in the river cover the basal sand. These finer sands are eventually topped by fine floodplain silts. Thus, grain size and sandiness usually decrease upward from a sharp basal contact throughout the valley. The SP in the Seminole in well #4 and well #5 show abrupt bases characteristic of channel fill.

Marine sand sediments are not usually deposited on scour surfaces, as fluvial deposits are. For this reason, marine sands usually lack the sharp basal contacts that fluvial sands have. Furthermore, since the top of a marine sand is more exposed to winnowing and washing by waves than is the lower section, the top of a marine sand is usually coarser and less shaly than the bottom. Therefore, SP curves through marine sand bodies often exhibit a gradual departure from the shale line at the base of the sand and an abrupt, angular return at the top. Sandstones in well #1 and well #2 show SP curves characteristic of marine sands.

**REFERENCE 26**

PANDAK

# Protection of Environment

# 40

PARTS 260 TO 299

**Revised as of July 1, 1990**

# code of federal regulations

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

1985

| | |
|---|---|
| Acute Hazardous Waste | (H) |
| Toxic Waste | (T) |

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

* * * * *

### § 261.31 Hazardous wastes from non-specific sources.

The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

| Industry and EPA hazardous waste No. | Hazardous waste | Hazard code |
|---|---|---|
| Generic: | | |
| F001 | The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (T) |
| F002 | The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (T) |
| F003 | The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (I)* |
| F004 | The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (T) |
| F005 | The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. | (I,T) |
| F006 | Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. | (T) |
| F007 | Spent cyanide plating bath solutions from electroplating operations | (R, T) |
| F008 | Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. | (R, T) |
| F009 | Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. | (R, T) |
| F010 | Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. | (R, T) |
| F011 | Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations. | (R, T) |
| F012 | Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process. | (T) |
| F019 | Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. | (T) |





| Industry and EPA hazardous waste No. | |
|---|---|
| F020 | Wastes (except wastewater from the production or ma component in a formulati diates used to produce th wastes from the produc trichlorophenol.). |
| F021 | Wastes (except wastewater from the production or ma component in a formulati used to produce its derivat |
| F022 | Wastes (except wastewater from the manufacturing us a formulating process) of conditions. |
| F023 | Wastes (except wastewater from the production of ma or manufacturing use (as formulating process) of tr wastes from equipment us from highly purified 2,4,5-tri |
| F024 | Process wastes, including b and reactor clean-out was hydrocarbons by free rad hydrocarbons are those including five, with varyin listing does not include w lysts, and wastes listed in |
| F025 | Condensed light ends, spent the production of certai catalyzed processes. The carbon chain lengths rang and positions of chlorine s |
| F026 | Wastes (except wastewater from the production of ma ing use (as a reactant, process) of tetra-, penta-, |
| F027 | Discarded unused formulati carded unused formulation ols. (This listing does not sized from prepurified 2,4, |
| F028 | Residues resulting from the with EPA Hazardous Wast |
| F039 | Leachate resulting from the more than one waste c classified under Subparts management of one or n other hazardous wastes F023, F026, F027, and/or |

*(I,T) should be used to specify mixtures containing ignit

[46 FR 4617, Jan. 16, 1981]

EDITORIAL NOTE: For FEDERAL REGISTER Sections Affected in the Finding Aids secti

### § 261.32 Hazardous wastes from specific

The following solid wastes are list unless they are excluded under §§ 26

| Industry and EPA hazardous waste No. | |
|---|---|
| Wood preservation: K001 | Bottom sediment sludge fr processes that use creos |
| Inorganic pigments: | |
| K002 | Wastewater treatment slu pigments. |
| K003 | Wastewater treatment slud |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| P021 | 592-01-8 | Calcium cyanide |
| P021 | 592-01-8 | Calcium cyanide $Ca(CN)_2$ |
| P022 | 75-15-0 | Carbon disulfide |
| P095 | 75-44-5 | Carbonic dichloride |
| P023 | 107-20-0 | Chloroacetaldehyde |
| P024 | 106-47-8 | p-Chloroaniline |
| P026 | 5344-82-1 | 1-(o-Chlorophenyl)thiourea |
| P027 | 542-76-7 | 3-Chloropropionitrile |
| P029 | 544-92-3 | Copper cyanide |
| P029 | 544-92-3 | Copper cyanide Cu(CN) |
| P030 | ..... | Cyanides (soluble cyanide salts), not otherwise specified |
| P031 | 460-19-5 | Cyanogen |
| P033 | 506-77-4 | Cyanogen chloride |
| P033 | 506-77-4 | Cyanogen chloride (CN)Cl |
| P034 | 131-89-5 | 2-Cyclohexyl-4,6-dinitrophenol |
| P016 | 542-88-1 | Dichloromethyl ether |
| P036 | 696-28-6 | Dichlorophenylarsine |
| P037 | 60-57-1 | Dieldrin |
| P038 | 692-42-2 | Diethylarsine |
| P041 | 311-45-5 | Diethyl-p-nitrophenyl phosphate |
| P040 | 297-97-2 | O,O-Diethyl O-pyrazinyl phosphorothioate |
| P043 | 55-91-4 | Diisopropylfluorophosphate (DFP) |
| P004 | 309-00-2 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- |
| P060 | 465-73-6 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)- |
| P037 | 60-57-1 | 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)- |
| P051 | [1] 72-20-8 | 2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites |
| P044 | 60-51-5 | Dimethoate |
| P046 | 122-09-8 | alpha,alpha-Dimethylphenethylamine |
| P047 | [1] 534-52-1 | 4,6-Dinitro-o-cresol, & salts |
| P048 | 51-28-5 | 2,4-Dinitrophenol |
| P020 | 88-85-7 | Dinoseb |
| P085 | 152-16-9 | Diphosphoramide, octamethyl- |
| P111 | 107-49-3 | Diphosphoric acid, tetraethyl ester |
| P039 | 298-04-4 | Disulfoton |
| P049 | 541-53-7 | Dithiobiuret |
| P050 | 115-29-7 | Endosulfan |
| P088 | 145-73-3 | Endothall |
| P051 | 72-20-8 | Endrin |
| P051 | 72-20-8 | Endrin, & metabolites |
| P042 | 51-43-4 | Epinephrine |
| P031 | 460-19-5 | Ethanedinitrile |
| P066 | 16752-77-5 | Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester |
| P101 | 107-12-0 | Ethyl cyanide |
| P054 | 151-56-4 | Ethyleneimine |
| P097 | 52-85-7 | Famphur |
| P056 | 7782-41-4 | Fluorine |
| P057 | 640-19-7 | Fluoroacetamide |
| P058 | 62-74-8 | Fluoroacetic acid, sodium salt |
| P065 | 628-86-4 | Fulminic acid, mercury(2+) salt (R,T) |
| P059 | 76-44-8 | Heptachlor |
| P062 | 757-58-4 | Hexaethyl tetraphosphate |
| P116 | 79-19-6 | Hydrazinecarbothioamide |
| P068 | 60-34-4 | Hydrazine, methyl- |
| P063 | 74-90-8 | Hydrocyanic acid |
| P063 | 74-90-8 | Hydrogen cyanide |
| P096 | 7803-51-2 | Hydrogen phosphide |
| P060 | 465-73-6 | Isodrin |
| P007 | 2763-96-4 | 3(2H)-Isoxazolone, 5-(aminomethyl)- |
| P092 | 62-38-4 | Mercury, (acetato-O)phenyl- |
| P065 | 628-86-4 | Mercury fulminate (R,T) |
| P082 | 62-75-9 | Methanamine, N-methyl-N-nitroso- |
| P064 | 624-83-9 | Methane, isocyanato- |
| P016 | 542-88-1 | Methane, oxybis[chloro- |
| P112 | 509-14-8 | Methane, tetranitro- (R) |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| P103 | 630-10-4 | Selenourea |
| P104 | 506-64-9 | Silver cyanide |
| P104 | 506-64-9 | Silver cyanide Ag(CN) |
| P105 | 26628-22-8 | Sodium azide |
| P106 | 143-33-9 | Sodium cyanide |
| P106 | 143-33-9 | Sodium cyanide Na(CN) |
| P107 | 1314-96-1 | Strontium sulfide SrS |
| P108 | [1] 57-24-9 | Strychnidin-10-one, & salts |
| P018 | 357-57-3 | Strychnidin-10-one, 2,3-dimethoxy- |
| P108 | [1] 57-24-9 | Strychnine, & salts |
| P115 | 7446-18-6 | Sulfuric acid, dithallium(1+) salt |
| P109 | 3689-24-5 | Tetraethyldithiopyrophosphate |
| P110 | 78-00-2 | Tetraethyl lead |
| P111 | 107-49-3 | Tetraethyl pyrophosphate |
| P112 | 509-14-8 | Tetranitromethane (R) |
| P062 | 757-58-4 | Tetraphosphoric acid, hexaethyl ester |
| P113 | 1314-32-5 | Thallic oxide |
| P113 | 1314-32-5 | Thallium oxide $Tl_2O_3$ |
| P114 | 12039-52-0 | Thallium(I) selenite |
| P115 | 7446-18-6 | Thallium(I) sulfate |
| P109 | 3689-24-5 | Thiodiphosphoric acid, tetraethyl ester |
| P045 | 39196-18-4 | Thiofanox |
| P049 | 541-53-7 | Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$ |
| P014 | 108-98-5 | Thiophenol |
| P116 | 79-19-6 | Thiosemicarbazide |
| P026 | 5344-82-1 | Thiourea, (2-chlorophenyl)- |
| P072 | 86-88-4 | Thiourea, 1-naphthalenyl- |
| P093 | 103-85-5 | Thiourea, phenyl- |
| P123 | 8001-35-2 | Toxaphene |
| P118 | 75-70-7 | Trichloromethanethiol |
| P119 | 7803-55-6 | Vanadic acid, ammonium salt |
| P120 | 1314-62-1 | Vanadium oxide $V_2O_5$ |
| P120 | 1314-62-1 | Vanadium pentoxide |
| P084 | 4549-40-0 | Vinylamine, N-methyl-N-nitroso- |
| P001 | [1] 81-81-2 | Warfarin, & salts, when present at concentrations greater than 0.3% |
| P121 | 557-21-1 | Zinc cyanide |
| P121 | 557-21-1 | Zinc cyanide $Zn(CN)_2$ |
| P122 | 1314-84-7 | Zinc phosphide $Zn_3P_2$, when present at concentrations greater than 10% (R,T) |

[1] CAS Number given for parent compound only.

(f) The commercial chemical products, manfacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in § 261.5 (a) and (g).

[*Comment:* For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| U001 | 75-07-0 | Acetaldehyde (I) |
| U034 | 75-87-6 | Acetaldehyde, trichloro- |
| U187 | 62-44-2 | Acetamide, N-(4-ethoxyphenyl)- |
| U005 | 53-96-3 | Acetamide, N-9H-fluoren-2-yl- |
| U240 | [1] 94-75-7 | Acetic acid, (2,4-dichlorophenoxy)-, salts & esters |
| U112 | 141-78-6 | Acetic acid ethyl ester (I) |
| U144 | 301-04-2 | Acetic acid, lead(2+) salt |
| U214 | 563-68-8 | Acetic acid, thallium(1+) salt |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| U061 | 50-29-3 | DDT |
| U062 | 2303-16-4 | Diallate |
| U063 | 53-70-3 | Dibenz[a,h]anthracene |
| U064 | 189-55-9 | Dibenzo[a,i]pyrene |
| U066 | 96-12-8 | 1,2-Dibromo-3-chloropropane |
| U069 | 84-74-2 | Dibutyl phthalate |
| U070 | 95-50-1 | o-Dichlorobenzene |
| U071 | 541-73-1 | m-Dichlorobenzene |
| U072 | 106-46-7 | p-Dichlorobenzene |
| U073 | 91-94-1 | 3,3'-Dichlorobenzidine |
| U074 | 764-41-0 | 1,4-Dichloro-2-butene (I,T) |
| U075 | 75-71-8 | Dichlorodifluoromethane |
| U078 | 75-35-4 | 1,1-Dichloroethylene |
| U079 | 156-60-5 | 1,2-Dichloroethylene |
| U025 | 111-44-4 | Dichloroethyl ether |
| U027 | 108-60-1 | Dichloroisopropyl ether |
| U024 | 111-91-1 | Dichloromethoxy ethane |
| U081 | 120-83-2 | 2,4-Dichlorophenol |
| U082 | 87-65-0 | 2,6-Dichlorophenol |
| U084 | 542-75-6 | 1,3-Dichloropropene |
| U085 | 1464-53-5 | 1,2:3,4-Diepoxybutane (I,T) |
| U108 | 123-91-1 | 1,4-Diethyleneoxide |
| U028 | 117-81-7 | Diethylhexyl phthalate |
| U086 | 1615-80-1 | N,N'-Diethylhydrazine |
| U087 | 3288-58-2 | O,O-Diethyl S-methyl dithiophosphate |
| U088 | 84-66-2 | Diethyl phthalate |
| U089 | 56-53-1 | Diethylstilbesterol |
| U090 | 94-58-6 | Dihydrosafrole |
| U091 | 119-90-4 | 3,3'-Dimethoxybenzidine |
| U092 | 124-40-3 | Dimethylamine (I) |
| U093 | 60-11-7 | p-Dimethylaminoazobenzene |
| U094 | 57-97-6 | 7,12-Dimethylbenz[a]anthracene |
| U095 | 119-93-7 | 3,3'-Dimethylbenzidine |
| U096 | 80-15-9 | alpha,alpha-Dimethylbenzylhydroperoxide (R) |
| U097 | 79-44-7 | Dimethylcarbamoyl chloride |
| U098 | 57-14-7 | 1,1-Dimethylhydrazine |
| U099 | 540-73-8 | 1,2-Dimethylhydrazine |
| U101 | 105-67-9 | 2,4-Dimethylphenol |
| U102 | 131-11-3 | Dimethyl phthalate |
| U103 | 77-78-1 | Dimethyl sulfate |
| U105 | 121-14-2 | 2,4-Dinitrotoluene |
| U106 | 606-20-2 | 2,6-Dinitrotoluene |
| U107 | 117-84-0 | Di-n-octyl phthalate |
| U108 | 123-91-1 | 1,4-Dioxane |
| U109 | 122-66-7 | 1,2-Diphenylhydrazine |
| U110 | 142-84-7 | Dipropylamine (I) |
| U111 | 621-64-7 | Di-n-propylnitrosamine |
| U041 | 106-89-8 | Epichlorohydrin |
| U001 | 75-07-0 | Ethanal (I) |
| U174 | 55-18-5 | Ethanamine, N-ethyl-N-nitroso- |
| U155 | 91-80-5 | 1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)- |
| U067 | 106-93-4 | Ethane, 1,2-dibromo- |
| U076 | 75-34-3 | Ethane, 1,1-dichloro- |
| U077 | 107-06-2 | Ethane, 1,2-dichloro- |
| U131 | 67-72-1 | Ethane, hexachloro- |
| U024 | 111-91-1 | Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro- |
| U117 | 60-29-7 | Ethane, 1,1'-oxybis-(I) |
| U025 | 111-44-4 | Ethane, 1,1'-oxybis[2-chloro- |
| U184 | 76-01-7 | Ethane, pentachloro- |
| U208 | 630-20-6 | Ethane, 1,1,1,2-tetrachloro- |
| U209 | 79-34-5 | Ethane, 1,1,2,2-tetrachloro- |
| U218 | 62-55-5 | Ethanethioamide |
| U226 | 71-55-6 | Ethane, 1,1,1-trichloro- |
| U227 | 79-00-5 | Ethane, 1,1,2-trichloro- |
| U359 | 110-80-5 | Ethanol, 2-ethoxy- |
| U173 | 1116-54-7 | Ethanol, 2,2'-(nitrosoimino)bis- |
| U004 | 98-86-2 | Ethanone, 1-phenyl- |
| U043 | 75-01-4 | Ethene, chloro- |
| U042 | 110-75-8 | Ethene, (2-chloroethoxy)- |
| U078 | 75-35-4 | Ethene, 1,1-dichloro- |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| U080 | 75-09-2 | Methane, dichloro- |
| U075 | 75-71-8 | Methane, dichlorodifluoro- |
| U138 | 74-88-4 | Methane, iodo- |
| U119 | 62-50-0 | Methanesulfonic acid, ethyl ester |
| U211 | 56-23-5 | Methane, tetrachloro- |
| U153 | 74-93-1 | Methanethiol (I, T) |
| U225 | 75-25-2 | Methane, tribromo- |
| U044 | 67-66-3 | Methane, trichloro- |
| U121 | 75-69-4 | Methane, trichlorofluoro- |
| U036 | 57-74-9 | 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- |
| U154 | 67-56-1 | Methanol (I) |
| U155 | 91-80-5 | Methapyrilene |
| U142 | 143-50-0 | 1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro- |
| U247 | 72-43-5 | Methoxychlor |
| U154 | 67-56-1 | Methyl alcohol (I) |
| U029 | 74-83-9 | Methyl bromide |
| U186 | 504-60-9 | 1-Methylbutadiene (I) |
| U045 | 74-87-3 | Methyl chloride (I,T) |
| U156 | 79-22-1 | Methyl chlorocarbonate (I,T) |
| U226 | 71-55-6 | Methyl chloroform |
| U157 | 56-49-5 | 3-Methylcholanthrene |
| U158 | 101-14-4 | 4,4'-Methylenebis(2-chloroaniline) |
| U068 | 74-95-3 | Methylene bromide |
| U080 | 75-09-2 | Methylene chloride |
| U159 | 78-93-3 | Methyl ethyl ketone (MEK) (I,T) |
| U160 | 1338-23-4 | Methyl ethyl ketone peroxide (R,T) |
| U138 | 74-88-4 | Methyl iodide |
| U161 | 108-10-1 | Methyl isobutyl ketone (I) |
| U162 | 80-62-6 | Methyl methacrylate (I,T) |
| U161 | 108-10-1 | 4-Methyl-2-pentanone (I) |
| U164 | 56-04-2 | Methylthiouracil |
| U010 | 50-07-7 | Mitomycin C |
| U059 | 20830-81-3 | 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)- |
| U167 | 134-32-7 | 1-Naphthalenamine |
| U168 | 91-59-8 | 2-Naphthalenamine |
| U026 | 494-03-1 | Naphthalenamine, N,N'-bis(2-chloroethyl)- |
| U165 | 91-20-3 | Naphthalene |
| U047 | 91-58-7 | Naphthalene, 2-chloro- |
| U166 | 130-15-4 | 1,4-Naphthalenedione |
| U236 | 72-57-1 | 2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt |
| U166 | 130-15-4 | 1,4-Naphthoquinone |
| U167 | 134-32-7 | alpha-Naphthylamine |
| U168 | 91-59-8 | beta-Naphthylamine |
| U217 | 10102-45-1 | Nitric acid, thallium(1+) salt |
| U169 | 98-95-3 | Nitrobenzene (I,T) |
| U170 | 100-02-7 | p-Nitrophenol |
| U171 | 79-46-9 | 2-Nitropropane (I,T) |
| U172 | 924-16-3 | N-Nitrosodi-n-butylamine |
| U173 | 1116-54-7 | N-Nitrosodiethanolamine |
| U174 | 55-18-5 | N-Nitrosodiethylamine |
| U176 | 759-73-9 | N-Nitroso-N-ethylurea |
| U177 | 684-93-5 | N-Nitroso-N-methylurea |
| U178 | 615-53-2 | N-Nitroso-N-methylurethane |
| U179 | 100-75-4 | N-Nitrosopiperidine |
| U180 | 930-55-2 | N-Nitrosopyrrolidine |
| U181 | 99-55-8 | 5-Nitro-o-toluidine |
| U193 | 1120-71-4 | 1,2-Oxathiolane, 2,2-dioxide |
| U058 | 50-18-0 | 2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide |
| U115 | 75-21-8 | Oxirane (I,T) |
| U126 | 765-34-4 | Oxiranecarboxyaldehyde |
| U041 | 106-89-8 | Oxirane, (chloromethyl)- |
| U182 | 123-63-7 | Paraldehyde |
| U183 | 608-93-5 | Pentachlorobenzene |
| U184 | 76-01-7 | Pentachloroethane |
| U185 | 82-68-8 | Pentachloronitrobenzene (PCNB) |
| See F027 | 87-86-5 | Pentachlorophenol |

| Hazardous waste No. | Chemical abstracts No. | Substance |
|---|---|---|
| See F027 | 93-72-1 | Silvex (2,4,5-TP) |
| U206 | 18883-66-4 | Streptozotocin |
| U103 | 77-78-1 | Sulfuric acid, dimethyl ester |
| U189 | 1314-80-3 | Sulfur phosphide (R) |
| See F027 | 93-76-5 | 2,4,5-T |
| U207 | 95-94-3 | 1,2,4,5-Tetrachlorobenzene |
| U208 | 630-20-6 | 1,1,1,2-Tetrachloroethane |
| U209 | 79-34-5 | 1,1,2,2-Tetrachloroethane |
| U210 | 127-18-4 | Tetrachloroethylene |
| See F027 | 58-90-2 | 2,3,4,6-Tetrachlorophenol |
| U213 | 109-99-9 | Tetrahydrofuran (I) |
| U214 | 563-68-8 | Thallium(I) acetate |
| U215 | 6533-73-9 | Thallium(I) carbonate |
| U216 | 7791-12-0 | Thallium(I) chloride |
| U216 | 7791-12-0 | Thallium chloride TlCl |
| U217 | 10102-45-1 | Thallium(I) nitrate |
| U218 | 62-55-5 | Thioacetamide |
| U153 | 74-93-1 | Thiomethanol (I,T) |
| U244 | 137-26-8 | Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl- |
| U219 | 62-56-6 | Thiourea |
| U244 | 137-26-8 | Thiram |
| U220 | 108-88-3 | Toluene |
| U221 | 25376-45-8 | Toluenediamine |
| U223 | 26471-62-5 | Toluene diisocyanate (R,T) |
| U328 | 95-53-4 | o-Toluidine |
| U353 | 106-49-0 | p-Toluidine |
| U222 | 636-21-5 | o-Toluidine hydrochloride |
| U011 | 61-82-5 | 1H-1,2,4-Triazol-3-amine |
| U227 | 79-00-5 | 1,1,2-Trichloroethane |
| U228 | 79-01-6 | Trichloroethylene |
| U121 | 75-69-4 | Trichloromonofluoromethane |
| See F027 | 95-95-4 | 2,4,5-Trichlorophenol |
| See F027 | 88-06-2 | 2,4,6-Trichlorophenol |
| U234 | 99-35-4 | 1,3,5-Trinitrobenzene (R,T) |
| U182 | 123-63-7 | 1,3,5-Trioxane, 2,4,6-trimethyl- |
| U235 | 126-72-7 | Tris(2,3-dibromopropyl) phosphate |
| U236 | 72-57-1 | Trypan blue |
| U237 | 66-75-1 | Uracil mustard |
| U176 | 759-73-9 | Urea, N-ethyl-N-nitroso- |
| U177 | 684-93-5 | Urea, N-methyl-N-nitroso- |
| U043 | 75-01-4 | Vinyl chloride |
| U248 | [1] 81-81-2 | Warfarin, & salts, when present at concentrations of 0.3% or less |
| U239 | 1330-20-7 | Xylene (I) |
| U200 | 50-55-5 | Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)- |
| U249 | 1314-84-7 | Zinc phosphide $Zn_3P_2$, when present at concentrations of 10% or less |

[1] CAS Number given for parent compound only.

(Approved by the Office of Management and Budget under control number 2050-0047)
[45 FR 78529, 78541, Nov. 25, 1980]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 261.33, see the List of CFR Sections Affected in the Finding Aids section of this volume.

## APPENDIX I—REPRESENTATIVE SAMPLING METHODS

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid—ASTM Standard D140-70 Crushed or powdered material—ASTM Standard D346-75 Soil or rock-like

# REFERENCE 27

# RECORD OF COMMUNICATION

**Reference 27**

**TYPE:** Phone Call **DATE:** 11/9/93 **TIME:** 9:30 a.m.

**TO:** Mr. Phil Demoret
City of Tulsa Water Dept.
Tulsa, OK

**FROM:** Gregory Hoffmann, ARCS Task Manager, ICF Technology, Inc.
(214) 979-3931

**SUBJECT:** Tulsa's Water Supply.

**SUMMARY OF COMMUNICATION:**

Mr Demoret is the supervisor of the A.B.Jewel water treatment facility. He told me that Tulsa gets all of its water from surface water sources, basically 3 lakes. The Jewel facility, which services the Thomas & Betts plant gets it water from Lake Oologah 27 miles to the northeast of Tulsa on the Verdigris River. Mr. Demoret said that no water was drawn from ground water sources. He said that there use to be some wells on the west side of town that were private but he believed that they were abandoned. He said that Tulsa has approximately 360,000 connections to its water supply, but he wasn't sure of the exact number. He referred me to a Mr. Monty Hannon at (918) 596-9598.

# REFERENCE 28

# RECORD OF COMMUNICATION

**Reference 28**

**TYPE:** Memorandum **DATE:** 10/12/93 **TIME:** 9:50 a.m.

**TO:** Thomas & Betts File
OKD070038823

**FROM:** Gregory Hoffmann, ARCS Task Manager, ICF Technology, Inc.
(214) 979-3931

**SUBJECT:** Reconnaissance Summary.

**SUMMARY OF COMMUNICATION:**

The reconnaissance team met at DFW Airport and flew to Tulsa Airport, where they rented a car and drove to the site. At the site they were greeted by Mr. Gary Stienke, Production Manager Mr.Mohan Asthana, Environmental Manager and Mr. Charles Ochinegro, Plant Manager. The 5 gentlemen when to a conference room and discussed the plants history and operation, including regulatory involvement. The team was given copies of the facilities permits, copies of the shipping manifests for the waste products and copies of the analytical data for the various monitoring that the plant does. They told the team that the solvent wastes were removed from the site within 12 weeks and that the sludge wastes are removed from the site within the 90-day limit.

The interview was followed by a tour of the facility both inside and out. During the tour the team was shown the machine oil and printing ink storage area and the sludge waste storage area. The team was also shown the pretreatment facility and the air venting system for the plating operation. Outside the facility the team was shown the grounds and the drainage slope that caused the run-off to flow into two areas, one being the city storm drain the other being catch drains that connected to the city storm drains. The catch drains were use as monitoring point by Thomas & Betts. The team was shown the 2 dumpster one for wood and one for paper.

After the tour there was a brief summary of the facility and a gathering of additional paper work for documentation.

The reconnaissance team then investigated the surrounding area. The closest occupied building is adjacent to the east side of the site and is Stewart C. Irby Electrical Distributors. The surrounding area is all commercial and industrial for at least 1/4 mile to the west and south, and 1/2 mile to the east and north. The closest resident was located approximately 1/4 mile to the west on Mingo Ave. There is a drainage ditch approximately 800 feet to the northwest of the facility and it appears that the city storm drain empty into it. There were no parks or recreation areas within 1/2 mile of the site.

# REFERENCE 29

**SAMPLING REPORT**
**CHAIN OF CUSTODY**

composite sample
(Metals, TSS, COD, BOD5)

**FACILITY NAME:** THOMAS & BETTS CORPORATION

**FACILITY ADDRESS:** 9932 E. 58th Street South, Tulsa, OK 74146

**SAMPLING LOCATION:** City Sampling Manhole East of the facility

**SAMPLE TYPE:** **Grab** _____ **Composite** X

**SAMPLING EQUIPMENT USED:** ISCO 2700 Automatic Sampler 150ML/20 Minutes

**NAME OF PERSON RESPONSIBLE FOR SAMPLING:** Phillip Pace, and James P. Renfro

**DATE/TIME SAMPLING STARTED:** 9-23-93 6:50 AM **DATE/TIME SAMPLING COMPLETED** 9-23-93 11:30 PM

| SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE | SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE |
|---|---|---|---|---|---|---|---|
| 1 | 20MIN | /150ML | Refrigerated & stored | 13 | | | |
| 2 | | | in Plastic Bottle | 14 | | | |
| 3 | | | | 15 | | | |
| 4 | | | | 16 | | | |
| 5 | | | | 17 | | | |
| 6 | | | | 18 | | | |
| 7 | | | | 19 | | | |
| 8 | | | | 20 | | | |
| 9 | | | | 21 | | | |
| 10 | | | | 22 | | | |
| 11 | | | | 23 | | | |
| 12 | | | | 24 | | | |

**CERTIFICATION:** To be completed by company official

**I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above-named facility.**

**Signature** [signature] **Title** Sup. Env. & Mfg.
(Mohan R. Asthana)

**SAMPLE RECEIPT:** To be completed by testing laboratory

**Laboratory Conducting Analysis** Metlab

**Volume Received:** 1 Gallon

**Received by:** C Lawrence Sample Custody 09/24/93 1040
Name Title Date Time

**Signature:** Charlene Lawrence

**SAMPLING REPORT**
**CHAIN OF CUSTODY**

CYANIDE SAMPLE (After Cyanide Destruction)

**FACILITY NAME:** THOMAS & BETTS CORPORATION

**FACILITY ADDRESS:** 9932 E. 58th Street South , Tulsa ., Ok 74146

**SAMPLING LOCATION:** Discharge pipe after Cyanide Destruction .

**SAMPLE TYPE:** **Grab** X **Composite** _____

**SAMPLING EQUIPMENT USED:** 250 Ml glass beaker

**NAME OF PERSON RESPONSIBLE FOR SAMPLING:** Phillip Pace, and James P. Renfro

**DATE/TIME SAMPLING STARTED:** 9-23-93 (9:15 AM **DATE/TIME SAMPLING COMPLETED** 9-23-93 4:40 PM

| SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE | SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE |
|---|---|---|---|---|---|---|---|
| 1 | 9:15 AM | 1Pt. | Preserved & Refrigerated glass bottle | 13 | | | |
| | | | | 14 | | | |
| 2 | 4:40 PM | 1Pt. | Preserved & Refrigerated glass bottle | 15 | | | |
| | | | | 16 | | | |
| | | | | 17 | | | |
| | | | | 18 | | | |
| | | | | 19 | | | |
| | | | | 20 | | | |
| | | | | 21 | | | |
| | | | | 22 | | | |
| | | | | 23 | | | |
| | | | | 24 | | | |

**CERTIFICATION:** To be completed by company official

**I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above-named facility.**

**Signature** MRAsthana **Title** Sup. Env. & Mfg.
(Mohan R. Asthana)

**SAMPLE RECEIPT:** To be completed by testing laboratory

**Laboratory Conducting Analysis** Mettler

**Volume Received:** 2 Pt.

**Received by:** C Lawrence (Name) Sample Custody (Title) 09/24/93 (Date) 1040 (Time)

**Signature:** Charlene Lawrence

**SAMPLING REPORT**
**CHAIN OF CUSTODY**
CYANIDE SAMPLE (City Sampling Manhole)

**FACILITY NAME:** THOMAS & BETTS CORPORATION

**FACILITY ADDRESS:** 9932 E. 58th Street South, Tulsa, OK 74146

**SAMPLING LOCATION:** City sampling manhole East of the facility

**SAMPLE TYPE:** **Grab** X **Composite** _____

**SAMPLING EQUIPMENT USED:** 250 Ml glass beaker

**NAME OF PERSON RESPONSIBLE FOR SAMPLING:** Phillip Pace, & James P. Renfro

**DATE/TIME SAMPLING STARTED:** 9-23-93 9:20 AM **DATE/TIME SAMPLING COMPLETED** 9-23-93 $$4:30 PM

| SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE | SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE |
|---|---|---|---|---|---|---|---|
| 1 | 9:20 AM | 1Pt. | Preserved & Refrigerated glass bottle | 13 | | | |
| | | | | 14 | | | |
| 2 | 4:30 PM | 1Pt. | Preserved & Refrigerated glass bottle | 15 | | | |
| | | | | 16 | | | |
| | | | | 17 | | | |
| | | | | 18 | | | |
| | | | | 19 | | | |
| | | | | 20 | | | |
| | | | | 21 | | | |
| | | | | 22 | | | |
| | | | | 23 | | | |
| | | | | 24 | | | |

**CERTIFICATION:** To be completed by company official

**I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above-named facility.**

**Signature** MRAsthana **Title** Sup. Env. & Mfg.
(Mohan R. Asthana)

**SAMPLE RECEIPT:** To be completed by testing laboratory

**Laboratory Conducting Analysis** Mettler

**Volume Received:** 2 Pt.

**Received by:** C Lawrence Sample Custody 09/24/93 1040
**Name** **Title** **Date** **Time**

**Signature:** Charlene Lawrence

SAMPLING REPORT
CHAIN OF CUSTODY
OIL & GREASE SAMPL

FACILITY NAME: THOMAS & BETTS CORPORATION

FACILITY ADDRESS: 9932 E. 58th Street South, Tulsa, OK 74146

SAMPLING LOCATION: City Sampling Manhole East of the facility

SAMPLE TYPE: Grab X Composite _____

SAMPLING EQUIPMENT USED: 250 ML Glass beaker

NAME OF PERSON RESPONSIBLE FOR SAMPLING: Phillip Pace, and James P. Renfro

DATE/TIME SAMPLING STARTED: 9-23-93 8:50 AM DATE/TIME SAMPLING COMPLETED 9-23-93 4:25 PM

| SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE | SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE |
|---|---|---|---|---|---|---|---|
| 1 | 8:50 AM | 1Qt | Preserved & Refrigerated Glass Container. | 13 | | | |
| | | | | 14 | | | |
| 2 | 4:25 PM | 1Qt | Preserved & Refrigerated Glass Container. | 15 | | | |
| | | | | 16 | | | |
| | | | | 17 | | | |
| | | | | 18 | | | |
| | | | | 19 | | | |
| | | | | 20 | | | |
| | | | | 21 | | | |
| | | | | 22 | | | |
| | | | | 23 | | | |
| | | | | 24 | | | |

CERTIFICATION: To be completed by company official

I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above-named facility.

Signature [signature] Title Sup. Env. & Mfg.
(Mohan R. Asthana)

SAMPLE RECEIPT: To be completed by testing laboratory

Laboratory Conducting Analysis Mettab

Volume Received: 2 Qt.

Received by: C. Lawrence Sample Custody 09/24/93 1040
Name Title Date Time

Signature: Charlene Lawrence

CHAIN OF CUSTODY

TOTAL TOXIC ORGANICS SAM

FACILITY NAME: THOMAS & BETTS CORPORATION

FACILITY ADDRESS: 9932 E. 58th Street South, Tulsa, OK 74146

SAMPLING LOCATION: City sampling Manhole East of the facility

SAMPLE TYPE: Grab X Composite

SAMPLING EQUIPMENT USED: 250 Ml glass beaker.

NAME OF PERSON RESPONSIBLE FOR SAMPLING: Phillip Pace, & James P. Renfro.

DATE/TIME SAMPLING STARTED: 9-23-93 8:40 AM DATE/TIME SAMPLING COMPLETED 9-23-93 8:07 PM

| SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE | SAMPLE# | TIME | VOLUME | PRESERVATION & STORAGE |
|---|---|---|---|---|---|---|---|
| 1 | 8:40 AM | 1Qt, 1Pur. | Refrigerated & stored Glass containers. | 13 | | | |
| | | | | 14 | | | |
| 2 | 12:50PM | 1Qt, 1Pur. | Refrigerated & Stored Glass Containers | 15 | | | |
| | | | | 16 | | | |
| 3 | 4:35 PM | 1Qt, 1Pur. | Refrigerated & stored Glass Containers | 17 | | | |
| | | | | 18 | | | |
| 4 | 8:07 PM | 1Qt, 1Pur. | Refrigerated & stored Glass Containers | 19 | | | |
| | | | | 20 | | | |
| | | | | 21 | | | |
| | | | | 22 | | | |
| | | | | 23 | | | |
| | | | | 24 | | | |

CERTIFICATION: To be completed by company official

I hereby certify that the above sampling occurred during a period such that the sample(s) is/are representative of a typical operating day discharge for the above-named facility.

Signature MRAsthana (MOHAN R. ASTHANA) Title Sup. Env. & Mfg.

SAMPLE RECEIPT: To be completed by testing laboratory

Laboratory Conducting Analysis Metlab

Volume Received: 4 Qts 160 mls

Received by: C Lawrence Sample Custody 09/24/93 1040

Name Title Date Time

Signature: Charlene Lawrence

METLAB Testing Services, Inc.
10835 East Independence Suite 102, Tulsa, Oklahoma 74116-5673
(918) 234-7111 Fax (918) 234-7152

HAIN OF CUSTODY
ECORD - SAMPLE
NALYSIS REQUEST

CLIENT Thomas & Betts
CONTACT NAME Mohan Asthana
ADDRESS
PHONE #

LAB #
P.O. #
BILLING ADDRESS
FAX #

MTS

ANALYSES REQUESTED

MPLERS SIGNATURE:

| . | SAMPLE IDENTIFICATION | DATE | TIME | SAMPLE TYPE | NUMBER OF CONTAINERS | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 16H Composite | 09/23/93 | | Waste Water | 15 | | | | | | | | | City Permit TTO |
| | | | | | | | | | | | | | | See attached sheet for parameters. |

| | Date | Time | | | Date | Time | |
|---|---|---|---|---|---|---|---|
| linquished by: | 9/24/93 | 10:40AM | Received by: | | | | Comments: |
| linquished by: | | | Received by: | | | | |
| linquished by: | | | Received by: | | | | |
| linquished by: | | | Received for Lab by: | Charlene Lawrence | 09/24/93 | 1040 | |

ETHOD OF SHIPMENT (Circle one): FED EX UPS COURIER HAND-DELIVERY OTHER (Specify):

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# METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 93-09-441

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — PO# NOT SPECIFIED

In accordance with your instructions, chemical analysis was performed on samples submitted from your company on the above date. The results of the analysis are listed below.

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| 16H WASTEWATER DISCHARGE | TOTAL SILVER | <0.01 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | TOTAL ARSENIC | <0.50 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | BOD5 | <1 | mg/L | TNH | 09/24/93 | EPA 405.1 |
| . | TOTAL CADMIUM | <0.01 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | COD | 33.7 | mg/L | KEA | 09/28/93 | EPA 410.4 |
| . | TOTAL CHROMIUM | <0.01 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | TOTAL COPPER | 0.08 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | TOTAL MERCURY | 0.0001 | mg/L | DM | 09/30/93 | EPA 245.1 |
| . | ICP METALS PREPARATION | N/A | N/A | DM | 10/04/93 | EPA 3010 |
| . | TOTAL NICKEL | 0.15 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | TOTAL LEAD | <0.10 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| . | 2,3,7,8-TCDD | <1.0 | PPB | PNT | 09/30/93 | METHOD 625 |
| . | TOTAL SUSPENDED SOLIDS | 57 | mg/L | TNH | 09/29/93 | EPA 160.2 |
| . | TOTAL ZINC | 0.02 | mg/L | KEA | 10/06/93 | EPA 200.7 |
| GRAB 09/23/93 0850 | OIL AND GREASE | 11 | mg/L | PDR | 09/30/93 | EPA 413.1 |
| GRAB 09/23/93 1625 | OIL AND GREASE | 9 | mg/L | PDR | 09/30/93 | EPA 413.1 |
| MANHOLE #1 09/23/93 | TOTAL CYANIDE | <0.002 | mg/L | LTN | 09/27/93 | EPA 335.3 |

See the next page for more test results.

Approved by: George A. Dust, Vice President — Dated: 10/06/93

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METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 93-09-441

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — PO# NOT SPECIFIED

RESULTS CONTINUED FROM THE PREVIOUS PAGE. (PAGE 2 )

| SAMPLE ID | PARAMETER | RESULTS | UNITS | ANALYST | ANALYZED | METHOD |
|---|---|---|---|---|---|---|
| MANHOLE #2 09/23/93 | TOTAL CYANIDE | 0.003 | mg/L | LTN | 09/27/93 | EPA 335.3 |
| DISCHARGE PIPE #1 09/23/93 | TOTAL CYANIDE | 0.003 | mg/L | LTN | 09/27/93 | EPA 335.3 |
| DISCHARGE PIPE #2 09/23/93 | TOTAL CYANIDE | 0.003 | mg/L | LTN | 09/27/93 | EPA 335.3 |

Should you have any questions, please feel free to call.

Approved by: _____ Dated: 10/06/93
George A. Dust
Vice President

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MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 9309441-01A

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — ID 16H WASTEWATER DISCHARGE

## ACID EXTRACTABLES FOR TTO BY METHOD 625

| PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|
| BENZOIC ACID | ND* | 2-CHLOROPHENOL | ND |
| 2,4-DICHLOROPHENOL | ND | 2,4-DIMETHYLPHENOL | ND |
| 2,4-DINITROPHENOL | ND* | 2-METHYL-4,6-DINITRO-PHENOL | ND |
| 2-METHYL PHENOL | ND | 4-METHYL PHENOL | ND |
| 2-NITROPHENOL | ND | 4-NITROPHENOL | ND |
| P-CHLORO-M-CRESOL | ND | PENTACHLOROPHENOL | ND* |
| PHENOL | ND | TETRACHLOROPHENOL | ND |
| 2,4,5-TRICHLOROPHENOL | ND | 2,4,6-TRICHLOROPHENOL | ND |

| SURROGATE | %RECOVERY |
|---|---|
| PHENOL-D5 | 40 |
| 2-FLUOROPHENOL | 77 |
| 2,4,6-TRIBROMOPHENOL | 67 |

NOTES:

| | |
|---|---|
| ANALYST | PNT |
| UNITS | PPB |
| MATRIX | WATER |
| EXTRACTED | 09/30/93 |
| ANALYZED | 09/30/93 |

ND = Not detected at 10
ND* = Not detected at 50

COMMENTS:

Approved by: G. A. Dust — Dated: 10/06/93
George A. Dust
Vice President

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MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 9309441-01A

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — ID 16H WASTEWATER DISCHARGE

BASE/NEUTRAL EXTRACTABLES FOR TTO BY METHOD 625

| PARAMETER | RESULT | PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|---|---|
| ACENAPHTHENE | ND | ACENAPHTHYLENE | ND | ANILINE | ND |
| ANTHRACENE | ND | BENZIDINE | ND | BENZO(A)ANTHRACENE | ND |
| BENZO(A)PYRENE | ND | BENZO(B)FLUORANTHENE | ND | BENZO(GHI)PERYLENE | ND*** |
| BENZO(K)FLUORANTHENE | ND | BENZYL ALCOHOL | ND* | BENZYLBUTYL PHTHALATE | ND |
| BIS(2-CHLORETHOXY)METHANE | ND | BIS(2-CHLOROETHYL)ETHER | ND | BIS(2-CHLORISOPROPYL)ETHER | ND |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 4-BROMOPHENYL PHENYL ETHER | ND | CARBAZOLE | ND* |
| 4-CHLOROANILINE | ND* | 2-CHLORONAPHTHALENE | ND | 4-CHLOROPHENYL PHENYL ETHER | ND |
| CHRYSENE | ND | DIBENZO(A,H)ANTHRACENE | ND | DIBENZOFURAN | ND |
| 1,2-DICHLOROBENZENE | ND | 1,3-DICHLOROBENZENE | ND | 1,4-DICHLOROBENZENE | ND |
| 3,3-DICHLOROBENZIDINE | ND* | DIETHYL PHTHALATE | ND | DIMETHYL PHTHALATE | ND |
| DI-N-BUTYL PHTHALATE | ND | DINITROBENZENE | ND** | 2,4-DINITROTOLUENE | ND |
| 2,6-DINITROTOLUENE | ND | DI-N-OCTYL PHTHALATE | ND | 1,2-DIPHENYLHYDRAZINE | ND* |
| FLUORANTHENE | ND | FLUORENE | ND | HEXACHLOROBENZENE | ND |
| HEXACHLOROBUTADIENE | ND | HEXACHLOROCYCLOPENTADIENE | ND | HEXACHLOROETHANE | ND |
| INDENO(1,2,3-CD)PYRENE | ND | ISOPHORONE | ND | 2-METHYLNAPHTHALENE | ND |
| NAPHTHALENE | ND | 2-NITROANILINE | ND*** | 3-NITROANILINE | ND*** |
| 4-NITROANILINE | ND* | NITROBENZENE | ND | N-NITROSODIPHENYLAMINE | ND |
| N-NITROSODIPROPYLAMINE | ND | PHENANTHRENE | ND | 2-PICOLINE | ND*** |
| PYRENE | ND | PYRIDINE | ND*** | TETRACHLOROBENZENE(S) | ND |
| TOLUENDIAMINE | ND* | 1,2,4-TRICHLOROBENZENE | ND | | |

**Detection Limits:**

ND = NOT DETECTED AT DETECTION LIMIT 10.
ND* = NOT DETECTED AT DETECTION LIMIT 20.
ND** = NOT DETECTED AT DETECTION LIMIT 40.
ND*** = NOT DETECTED AT DETECTION LIMIT 50.

**Notes and Definitions:**

ANALYST PNT
UNITS PPB
EXTRACTED 09/30/93
ANALYZED 09/30/93

Approved by: George A. Dust, Vice President — Dated: 10/06/93

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METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 9309441-01A

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — ID 16H WASTEWATER DISCHARGE

QA/QC FOR BASE/NEUTRAL EXTRACTABLES FOR TTO BY METHOD

| SURROGATE | %RECOVERY |
|---|---|
| 2-FLUOROBIPHENYL | 70 |
| NITROBENZENE-D5 | 65 |
| TERPHENYL-D14 | 77 |

QA/QC RESULTS

| PARAMETER | DUPLICATE DUPA | DUPLICATE DUPB | SPIKE % RECOVERY |
|---|---|---|---|
| ACENAPHTHENE | 61 | 65 | 65 |
| N-NITROSODIPROPYLAMINE | 45 | 48 | 48 |
| PYRENE | 72 | 82 | 82 |
| 1,2,4-TRICHLOROBENZENE | 54 | 55 | 55 |
| 1,4-DICHLORBENZENE | 49 | 46 | 46 |
| 2,4-DINITROTOLUENE | 62 | 59 | 59 |

Results obtained from a sample in the same batch.

All units are in PPB

COMMENTS:

Approved by: George A. Dust, Vice President — Dated: 10/06/93

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METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 9309441-01A

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — ID 16H WASTEWATER DISCHARGE

## PESTICIDE EXTRACTABLES FOR TTO BY METHOD 625

| PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|
| ALDRIN | ND | DIELDRIN | ND |
| CHLORDANE | *ND | 4,4-DDT | ND |
| 4,4-DDE | ND | 4,4-DDD | ND |
| ALPHA ENDOSULFAN | ND | BETA ENDOSULFAN | ND |
| ENDOSULFAN SULFATE | ND | ENDRIN | ND |
| ENDRIN ALDEHYDE | ND | HEPTACHLOR | ND |
| HEPTACHLOR EPOXIDE | ND | ALPHA BHC | ND |
| BETA BHC | ND | LINDANE - GAMMA BHC | ND |
| DELTA BHC | ND | PCB-1242 | *ND |
| PCB-1254 | *ND | PCB-1221 | *ND |
| PCB-1232 | *ND | PCB-1248 | *ND |
| PCB-1260 | *ND | PCB-1016 | *ND |
| TOXAPHENE | *ND | METHOXYCHLOR | *ND |

| SURROGATE | %RECOVERY |
|---|---|
| 2-FLUOROBIPHENYL | 70 |
| NITROBENZENE-D5 | 65 |
| TERPHENYL-D14 | 77 |

NOTES AND DEFINITIONS:

| | |
|---|---|
| ANALYST | PNT |
| MATRIX | WATER |
| EXTRACTED | 09/30/93 |
| ANALYZED | 09/30/93 |

COMMENTS: *ND = NOT DETECTED AT 25 PPB

QA/QC RESULTS

| PARAMETER | DUPLICATE DUPA | DUPLICATE DUPB | SPIKE % RECOVERY |
|---|---|---|---|
| ALDRIN | 72 | 75 | 75 |
| 4,4-DDT | 69 | 72 | 72 |
| HEPTACHLOR | 81 | 86 | 86 |
| LINDANE - GAMMA BHC | 75 | 74 | 74 |

Results obtained from a sample in the same batch.

All results reported in PPB unless otherwise specified.
ND = Not detected at 10

Approved by: George A. Dust, Vice President — Dated: 10/11/93

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MTS

METLAB TESTING REPORT

THOMAS & BETTS — MLTS# 93-5943 — SAM# 9309441-01A

ATTN: MOHAN ASTHANA — DATE RECEIVED: 09/24/93 — CONTACT GEORGE

COLLECTED BY: MOHAN ASTHANA — DATE COLLECTED: 09/23/93 — ID 16H WASTEWATER DISCHARGE

## VOLATILES FOR TTO BY METHOD 624

| PARAMETER | RESULT | PARAMETER | RESULT |
|---|---|---|---|
| ACROLEIN | ND** | ACRYLONITRILE | ND** |
| BENZENE | ND | CARBON TETRACHLORIDE | ND |
| CHLOROBENZENE | ND | 1,2-DICHLOROETHANE | ND |
| 1,1,1-TRICHLOROETHANE | ND | 1,1-DICHLOROETHANE | ND |
| 1,1,2-TRICHLOROETHANE | ND | 1,1,2,2-TETRACHLOROETHANE | ND |
| CHLOROETHANE | ND* | 2-CHLOROETHYLVINYL ETHER | ND* |
| CHLOROFORM | 84 | 1,1-DICHLOROETHYLENE | ND |
| 1,2-TRANS-DICHLOROETHYLENE | ND | 1,2-DICHLOROPROPANE | ND |
| CIS-1,3-DICHLOROPROPYLENE | ND | TRANS-1,3-DICHLOROPROPYLENE | ND |
| ETHYLBENZENE | ND | METHYLENE CHLORIDE | ND |
| METHYL CHLORIDE | ND* | METHYL BROMIDE | ND* |
| BROMOFORM | ND | DICHLOROBROMOMETHANE | 22 |
| CHLORODIBROMOMETHANE | ND | TETRACHLOROETHYLENE | ND |
| TOLUENE | ND | TRICHLOROETHYLENE | ND |
| VINYL CHLORIDE | ND* | | |

**DETECTION LIMITS:**

ND = NOT DETECTED AT DETECTION LIMIT 10
ND* = NOT DETECTED AT DETECTION LIMIT 20
ND** = NOT DETECTED AT DETECTION LIMIT 50

| SURROGATE | %RECOVERY |
|---|---|
| DIBROMOFLUOROMETHANE | 95 |
| TOLUENE-D8 | 105 |
| BROMOFLUOROBENZENE | 99 |

All results reported in PPB unless otherwise specified.
Should you have any questions, please feel free to call.

COMMENTS:

Approved by: George A. Dust, Vice President — Dated: 10/06/93

# REFERENCE 30

2301036

# RECORD OF COMMUNICATION

**Reference 30**

**TYPE:** Phone Call **DATE:** 11/17/93 **TIME:** 5:00 p.m.

**TO:** Mr. Monty Hannon &
Mr. Mike Meyers
City of Tulsa Water Dept.
Tulsa, OK

**FROM:** Gregory Hoffmann, ARCS Task Manager, ICF Technology, Inc.
(214) 979-3931

**SUBJECT:** Tulsa's Water Sources

**SUMMARY OF COMMUNICATION:**

Mr. Hannon is the director of Tulsa's water department and Mr. Meyers is the head of the customer services division. Mr. Hannon stated that Tulsa gets all of its water from surface sources and none of it comes from ground water. The ground water in the region is too sparse at the shallow aquifer and is not of good quality from the deep aquifer. Also the shallow aquifer is some what polluted. The intakes for the surface water sources are at the dams of the lakes where the water comes from, lake Oologah and lake Spavinor. These intakes are about 27 miles outside of town.

Mr Meyers said that Tulsa has 131,938 active water connection, they bill 131,204 meters, there are 136,469 meters throughout the city and there are 144,922 taps into the city lines some of which are old and many of which are no longer in service.

Neither gentlemen knew of any domestic water wells in the city service area. Mr Hannon stated that there was some on the west side of the river that were used for irrigation purposes.

OMB Approval Number: 2050-0095
Approved for Use Through: 4/95

# PA-Score

## PA Scoresheets

Site Name: Thomas & Betts Corporation
CERCLIS ID No.: OKD070038823
Street Address: 9932 East 58th Street South
City/State/Zip: Tulsa, OK 74146

Investigator: Gregory C. Hoffmann
Agency/Organization: ICF Technology, Inc.
Street Address: 750 North Saint Paul Street # 700
City/State: Dallas, TX

Date: 11/15/93

WASTE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

1 Dry Sludge Non-drum containers Ref: 20 WQ value maximum

Wastestream 1.36E+04 lbs 2.72E+00 2.72E+00
Thomas & Betts generated 10202 pounds of dry sludge waste during the first 9 months of 1993, according to their manifests. 10202 divided by 9 equals 1133.55 pounds per month. 1133.55 times 12 equals 13602.66 pounds per year.
Ref: 1,20

2 Solvent waste Non-drum containers Ref: 21 WQ value maximum

Volume 4.79E+02 gals 9.58E-01 9.58E-01
Thomas & Betts generated 359.13 gallons of solvent wastes during the first 9 months of 1993. 359.13 divided by 9 equals 39.9 gallons per month. 39.9 times 12 equals 478.84 gallons per year. The manifest had some of the quantities listed in pounds, they were converted to gallons by dividing them by 8 pounds per gallon.
Ref: 1,21

WQ total 3.68E+00

| | |
|---|---|
| ** Only First WC Page Is Printed ** | Waste Characteristics Score: WC = 18 |

## Ground Water Pathway Criteria List
## Suspected Release

| | |
|---|---|
| Are sources poorly contained? (y/n/u) | N |
| Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u) | N |
| Is waste quantity particularly large? (y/n/u) | N |
| Is precipitation heavy? (y/n/u) | N |
| Is the infiltration rate high? (y/n/u) | N |
| Is the site located in an area of karst terrain? (y/n) | N |
| Is the subsurface highly permeable or conductive? (y/n/u) | N |
| Is drinking water drawn from a shallow aquifer? (y/n/u) | U |
| Are suspected contaminants highly mobile in ground water? (y/n/u) | N |
| Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u) | N |
| Other criteria? (y/n) N | |
| SUSPECTED RELEASE? (y/n) | N |

Summarize the rationale for Suspected Release:

The waste sources at this facility are all stored inside. The waste is not particularly large, and is removed from the site within 90 days. The precipitation is not heavy and the native soil has a very low permeability.

Ref: 1,7,8,9,10,11,20,21,25

Ground Water Pathway Criteria List
Primary Targets

Is any drinking water well nearby? (y/n/u)

Has any nearby drinking water well been closed? (y/n/u)

Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)

Does any nearby well have a large drawdown/high production rate? (y/n/u)

Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)

Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u)

Does any drinking water well warrant sampling? (y/n/u)

Other criteria? (y/n)

PRIMARY TARGET(S) IDENTIFIED? (y/n)

Summarize the rationale for Primary Targets:

GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics

| | | Ref. |
|---|---|---|
| Do you suspect a release? (y/n) | No | |
| Is the site located in karst terrain? (y/n) | No | 7,25 |
| Depth to aquifer (feet): | 50 | 25 |
| Distance to the nearest drinking water well (feet): | 23760 | 27,30 |

| LIKELIHOOD OF RELEASE | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 1. SUSPECTED RELEASE | 0 | | |
| 2. NO SUSPECTED RELEASE | | 500 | |
| LR = | 0 | 500 | |

Targets

| TARGETS | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 3. PRIMARY TARGET POPULATION 0 person(s) | 0 | | |
| 4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) N | 0 | 0 | |
| 5. NEAREST WELL | 0 | 0 | |
| 6. WELLHEAD PROTECTION AREA None within 4 Miles | 0 | 0 | |
| 7. RESOURCES | 0 | 5 | |
| T = | 0 | 5 | |

WASTE CHARACTERISTICS

| | | |
|---|---|---|
| WC = | 0 | 18 |

GROUND WATER PATHWAY SCORE: 1

Ground Water Target Populations

| Primary Target Population Drinking Water Well ID | Dist. (miles) | Population Served | Reference | Value |
|---|---|---|---|---|
| None | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| *** Note : Maximum of 5 Wells Are Printed *** | | | Total | |

| Secondary Target Population Distance Categories | Population Served | Reference | Value |
|---|---|---|---|
| 0 to 1/4 mile | 0 | | 0 |
| Greater than 1/4 to 1/2 mile | 0 | | 0 |
| Greater than 1/2 to 1 mile | 0 | | 0 |
| Greater than 1 to 2 miles | 0 | | 0 |
| Greater than 2 to 3 miles | 0 | | 0 |
| Greater than 3 to 4 miles | 0 | | 0 |
| | | Total | 0 |

Apportionment Documentation for a Blended System

## Surface Water Pathway Criteria List
## Suspected Release

| | |
|---|---|
| Is surface water nearby? (y/n/u) | N |
| Is waste quantity particularly large? (y/n/u) | N |
| Is the drainage area large? (y/n/u) | N |
| Is rainfall heavy? (y/n/u) | Y |
| Is the infiltration rate low? (y/n/u) | N |
| Are sources poorly contained or prone to runoff or flooding? (y/n/u) | N |
| Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u) | Y |
| Is vegetation stressed along the probable runoff path? (y/n/u) | N |
| Are sediments or water unnaturally discolored? (y/n/u) | N |
| Is wildlife unnaturally absent? (y/n/u) | N |
| Has deposition of waste into surface water been observed? (y/n/u) | N |
| Is ground water discharge to surface water likely? (y/n/u) | N |
| Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u) | N |
| Other criteria? (y/n) N | |
| SUSPECTED RELEASE? (y/n) | N |

Summarize the rationale for Suspected Release:

The wastes from this site are all well contained and store inside the building for less then 90 days. The surface water runoff route is well defined. The drainage area is not large. The surface water runoff is monitored by Thomas & Betts under their internal environmental program. The site is listed as being outside of any flood plain designation.

Ref: 1,4,8,9,10,11,19,23

Surface Water Pathway Criteria List
Primary Targets

Is any target nearby? (y/n/u) If yes: N
N Drinking water intake
N Fishery
N Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u) N

Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target? (y/n/u) N

Does any target warrant sampling? (y/n/u) If yes: N
N Drinking water intake
N Fishery
N Sensitive environment

Other criteria? (y/n) N

PRIMARY INTAKE(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Intakes:

continued -------

continued -------

Other criteria? (y/n) N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Fisheries:

Other criteria? (y/n) N

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Sensitive Environments:

SURFACE WATER PATHWAY SCORESHEETS

| Pathway Characteristics | | Ref. |
|---|---|---|
| Do you suspect a release? (y/n) | No | |
| Distance to surface water (feet): | 29840 | 4 |
| Flood frequency (years): | >500 | 23 |
| What is the downstream distance (miles) to:<br>a. the nearest drinking water intake?<br>b. the nearest fishery?<br>c. the nearest sensitive environment? | <br>N.A.<br>N.A.<br>N.A. | |

| LIKELIHOOD OF RELEASE | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 1. SUSPECTED RELEASE | 0 | | |
| 2. NO SUSPECTED RELEASE | | 100 | |
| LR = | 0 | 100 | |

Drinking Water Threat Targets

| TARGETS | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake. | | | |
| 4. PRIMARY TARGET POPULATION 0 person(s) | 0 | | |
| 5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N | 0 | 0 | |
| 6. NEAREST INTAKE | 0 | 0 | |
| 7. RESOURCES | 0 | 5 | |
| T = | 0 | 5 | |

Drinking Water Threat Target Populations

| Intake Name | Primary (y/n) | Water Body Type/Flow | Population Served | Ref. | Value |
|---|---|---|---|---|---|
| None | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | |
|---|---|
| Total Primary Target Population Value | 0 |
| Total Secondary Target Population Value | 0 |

*** Note : Maximum of 6 Intakes Are Printed ***

Apportionment Documentation for a Blended System

Human Food Chain Threat Targets

| TARGETS | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 8. Determine the water body type and flow for each fishery within the target limit. | | | |
| 9. PRIMARY FISHERIES | 0 | | |
| 10. SECONDARY FISHERIES | 0 | 0 | |
| T = | 0 | 0 | |

Human Food Chain Threat Targets

| Fishery Name | Primary (y/n) | Water Body Type/Flow | Ref. | Value |
|---|---|---|---|---|
| None | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| | |
|---|---|
| Total Primary Fisheries Value | 0 |
| Total Secondary Fisheries Value | 0 |

*** Note : Maximum of 6 Fisheries Are Printed ***

Environmental Threat Targets

| TARGETS | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 11. Determine the water body type and flow (if applicable) for each sensitive environment. | | | |
| 12. PRIMARY SENSITIVE ENVIRONMENTS | 0 | | |
| 13. SECONDARY SENSITIVE ENVIRONS. | 0 | 0 | |
| T = | 0 | 0 | |

Environmental Threat Targets

| Sensitive Environment Name | Primary (y/n) | Water Body Type/Flow | Ref. | Value |
|---|---|---|---|---|
| None | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| | |
|---|---|
| Total Primary Sensitive Environments Value | 0 |
| Total Secondary Sensitive Environments Value | 0 |

*** Note: Maximum of 6 Sensitive Environments Are Printed ***

Surface Water Pathway Threat Scores

| Threat | Likelihood of Release(LR) Score | Targets(T) Score | Pathway Waste Characteristics (WC) Score | Threat Score LR x T x WC / 82,500 |
|---|---|---|---|---|
| Drinking Water | 100 | 5 | 18 | 0 |
| Human Food Chain | 100 | 0 | 18 | 0 |
| Environmental | 100 | 0 | 18 | 0 |

SURFACE WATER PATHWAY SCORE: 0

## Soil Exposure Pathway Criteria List
## Resident Population

| | |
|---|---|
| Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u) | N |
| Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u) | N |
| Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u) | N |
| Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u) | U |
| Does any neighboring property warrant sampling? (y/n/u) | N |

Other criteria? (y/n) N

RESIDENT POPULATION IDENTIFIED? (y/n) N

Summarize the rationale for Resident Population:

SOIL EXPOSURE PATHWAY SCORESHEETS

| Pathway Characteristics | | Ref. |
|---|---|---|
| Do any people live on or within 200 ft of areas of suspected contamination? (y/n) | No | 4,11 |
| Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n) | No | 4,11 |
| Is the facility active? (y/n): | Yes | 11 |

| LIKELIHOOD OF EXPOSURE | Suspected Contamination | References |
|---|---|---|
| 1. SUSPECTED CONTAMINATION LE = | 550 | |

Targets

| | | |
|---|---|---|
| 2. RESIDENT POPULATION<br>0 resident(s)<br>0 school/daycare student(s) | 0 | |
| 3. RESIDENT INDIVIDUAL | 0 | |
| 4. WORKERS<br>101 - 1000 | 10 | 11 |
| 5. TERRES. SENSITIVE ENVIRONMENTS | 0 | |
| 6. RESOURCES | 5 | |
| T = | 15 | |

WASTE CHARACTERISTICS

WC = 18

RESIDENT POPULATION THREAT SCORE: 2

NEARBY POPULATION THREAT SCORE: 1

Population Within 1 Mile: 1 - 10,000

SOIL EXPOSURE PATHWAY SCORE: 3

Soil Exposure Pathway Terrestrial Sensitive Environments

| Terrestrial Sensitive Environment Name | Reference | Value |
|---|---|---|
| None | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Total Terrestrial Sensitive Environments Value | | |

*** Note : Maximum of 7 Sensitive Environments Are Printed ***

## Air Pathway Criteria List
## Suspected Release

| | |
|---|---|
| Are odors currently reported? (y/n/u) | N |
| Has release of a hazardous substance to the air been directly observed? (y/n/u) | N |
| Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u) | U |
| Does analytical/circumstantial evidence suggest release to air? (y/n/u) | N |
| Other criteria? (y/n) N | |
| SUSPECTED RELEASE? (y/n) | N |

Summarize the rationale for Suspected Release:

## AIR PATHWAY SCORESHEETS

Pathway Characteristics

| | | Ref. |
|---|---|---|
| Do you suspect a release? (y/n) | No | |
| Distance to the nearest individual (feet): | 0 | 11 |

| LIKELIHOOD OF RELEASE | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 1. SUSPECTED RELEASE | 0 | | |
| 2. NO SUSPECTED RELEASE | | 500 | |
| LR = | 0 | 500 | |

Targets

| TARGETS | Suspected Release | No Suspected Release | References |
|---|---|---|---|
| 3. PRIMARY TARGET POPULATION 0 person(s) | 0 | | |
| 4. SECONDARY TARGET POPULATION | 0 | 55 | |
| 5. NEAREST INDIVIDUAL | 0 | 20 | |
| 6. PRIMARY SENSITIVE ENVIRONS. | 0 | | |
| 7. SECONDARY SENSITIVE ENVIRONS. | 0 | 0 | |
| 8. RESOURCES | 0 | 5 | |
| T = | 0 | 80 | |

WASTE CHARACTERISTICS

| | | |
|---|---|---|
| WC = | 0 | 18 |

AIR PATHWAY SCORE: 9

Air Pathway Secondary Target Populations

| Distance Categories | Population | References | Value |
|---|---|---|---|
| Onsite | 120 | 11 | 16 |
| Greater than 0 to 1/4 mile | 34 | 5 | 1 |
| Greater than 1/4 to 1/2 mile | 498 | 5 | 3 |
| Greater than 1/2 to 1 mile | 5908 | 5 | 8 |
| Greater than 1 to 2 miles | 21845 | 5 | 8 |
| Greater than 2 to 3 miles | 35375 | 5 | 12 |
| Greater than 3 to 4 miles | 58941 | 5 | 7 |
| | Total Secondary Population Value | | 55 |

Air Pathway Primary Sensitive Environments

| Sensitive Environment Name | Reference | Value |
|---|---|---|
| None | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Total Primary Sensitive Environments Value | | |

*** Note : Maximum of 7 Sensitive Environments Are Printed***

Air Pathway Secondary Sensitive Environments

| Sensitive Environment Name | Distance | Reference | Value |
|---|---|---|---|
| None | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Total Secondary Sensitive Environments Value | | | |

| SITE SCORE CALCULATION | SCORE |
|---|---|
| GROUND WATER PATHWAY SCORE: | 1 |
| SURFACE WATER PATHWAY SCORE: | 0 |
| SOIL EXPOSURE PATHWAY SCORE: | 3 |
| AIR PATHWAY SCORE: | 9 |
| SITE SCORE: | 5 |

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No

   If yes, identify the well(s).

   If yes, how many people are served by the threatened well(s)? 0

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?
   A. Drinking water intake No
   B. Fishery No
   C. Sensitive environment (wetland, critical habitat, others) No

   If yes, identity the target(s).

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? No

   If yes, identify the properties and estimate the associated population(s)

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? No

   If yes, explain:

REFERENCE LIST

OMB Approval Number: 2050-0095
Approved for Use Through: 4/95

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

## 1. General Site Information

| Name: | | Street Address: | | | |
|---|---|---|---|---|---|
| Thomas & Betts Corporation | | 9932 East 58th Street South | | | |
| City: Tulsa | State: OK | Zip Code: 74146 | County: Tulsa | Co. Code: | Cong. Dist: 1 |
| Latitude: 36° 4' 46.5" Longitude: 95° 51' 50.0" | | Approx. Area of Site: 5 acres | | Status of Site: Active | |

## 2. Owner/Operator Information

| Owner: | | | Operator: | | |
|---|---|---|---|---|---|
| Thomas & Betts Corporation | | | Thomas & Betts Corporation | | |
| Street Address: 1101 Frontier Road | | | Street Address: 9932 East 58th Street South | | |
| City: Bridgewater | | | City: Tulsa | | |
| State: NJ | Zip Code: 08807-0993 | Telephone: (908)685-1600 | State: OK | Zip Code: 74146 | Telephone: (918)252-0466 |
| Type of Ownership: Private | | | How Initially Identified: RCRA/CERCLA Notification | | |

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

## 3. Site Evaluator Information

| Name of Evaluator: | Agency/Organization: | Date Prepared: |
|---|---|---|
| Gregory C. Hoffmann | ICF Technology, Inc. | 11/15/93 |

| Street Address: | City: | State: |
|---|---|---|
| 750 North Saint Paul Street # 700 | Dallas | TX |
| Name of EPA or State Agency Contact: Kim Hill | Telephone: (214) 655-6672 | |
| Street Address: 1445 Ross Avenue | City: Dallas | State: TX |

## 4. Site Disposition (for EPA use only)

| Emergency Response/Removal Assessment Recommendation: No | CERCLIS Recommendation: NFRAP | Signature: |
|---|---|---|
| Date: | Date: | Name: |
| | | Position: |

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

## 5. General Site Characteristics

| Predominant Land Uses Within 1 Mile of Site: | Site Setting: | Years of Operation: |
|---|---|---|
| Industrial<br>Commercial | Urban | Beginning Year: 1977<br>Ending Year: 1993 |

| Type of Site Operations: | |
|---|---|
| Manufacturing<br>Metal Coatings, Plating, Engraving<br>Metal Forging, Stamping | Waste Generated: Onsite |
| | Waste Deposition Authorized By: Present Owner |
| | Waste Accessible to the Public No |
| | Distance to Nearest Dwelling, School, or Workplace: 1320 Feet |

## 6. Waste Characteristics Information

| Source Type | Quantity | Tier |
|---|---|---|
| Non-drum containers | 1.36e+04 lbs | W |
| Non-drum containers | 4.79e+02 gals | V |

General Types of Waste:
Metals
Solvents

Physical State of Waste as Deposited
Liquid
Sludge

Tier Legend
C = Constituent W = Wastestream
V = Volume A = Area

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

## 7. Ground Water Pathway

| | | |
|---|---|---|
| Is Ground Water Used for Drinking Water Within 4 Miles: No | Is There a Suspected Release to Ground Water: No | List Secondary Target Population Served by Ground Water Withdrawn From: |
| Type of Ground Water Wells Within 4 Miles: | Have Primary Target Drinking Water Wells Been Identified: No | 0 - 1/4 Mile 0<br>>1/4 - 1/2 Mile 0<br>>1/2 - 1 Mile 0<br>>1 - 2 Miles 0<br>>2 - 3 Miles 0<br>>3 - 4 Miles 0<br>Total 0 |
| Depth to Shallowest Aquifer: 50 Feet | | |
| Karst Terrain/Aquifer Present: No | Nearest Designated Wellhead Protection Area: None within 4 Miles | |

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

| 8. Surface Water Pathway | Part 1 of 4 |
|---|---|
| Type of Surface Water Draining Site and 15 Miles Downstream: Stream | Shortest Overland Distance From Any Source to Surface Water: 29840 Feet 5.7 Miles |
| Is there a Suspected Release to Surface Water: No | Site is Located in: > 500 yr floodplain |

| 8. Surface Water Pathway | Part 2 of 4 |
|---|---|

Drinking Water Intakes Along the Surface Water Migration Path: No

Have Primary Target Drinking Water Intakes Been Identified: No

Secondary Target Drinking Water Intakes:
None

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

8. Surface Water Pathway — Part 3 of 4

Fisheries Located Along the Surface Water Migration Path: No

Have Primary Target Fisheries Been Identified: No

Secondary Target Fisheries:
None

8. Surface Water Pathway — Part 4 of 4

Wetlands Located Along the Surface Water Migration Path? (y/n) No

Have Primary Target Wetlands Been Identified? (y/n) No

Secondary Target Wetlands:
None

Other Sensitive Environments Along the Surface Water Migration Path: No

Have Primary Target Sensitive Environments Been Identified: No

Secondary Target Sensitive Environments:
None

| POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM | IDENTIFICATION | |
|---|---|---|
| | State: OK | CERCLIS Number: OKD070038823 |
| | CERCLIS Discovery Date: 6/14/90 | |

## 9. Soil Exposure Pathway

| | |
|---|---|
| Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination: No | Number of Workers Onsite: 101 - 1000 |

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination: No

## 10. Air Pathway

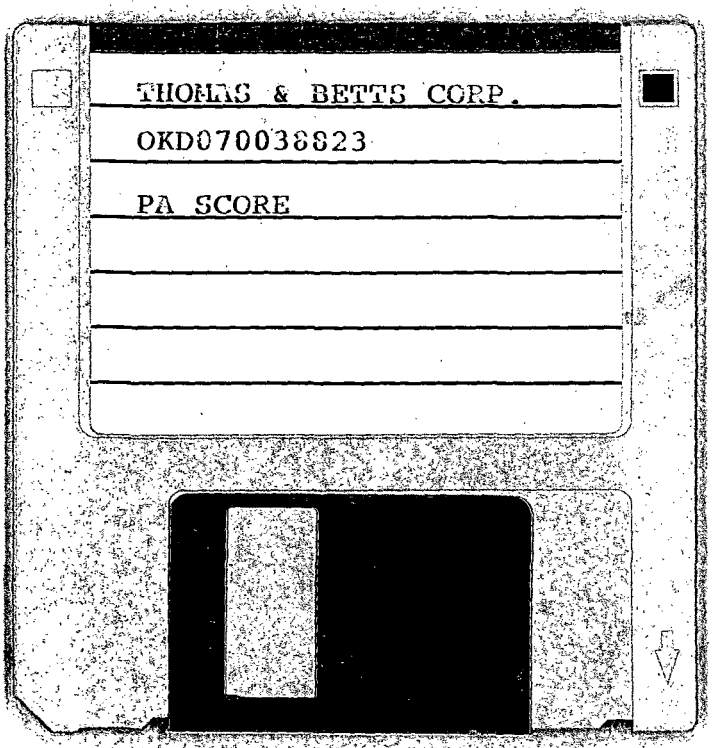
| Total Population on or Within: | |
|---|---|
| Onsite | 120 |
| 0 - 1/4 Mile | 34 |
| >1/4 - 1/2 Mile | 498 |
| >1/2 - 1 Mile | 5908 |
| >1 - 2 Miles | 21845 |
| >2 - 3 Miles | 35375 |
| >3 - 4 Miles | 58941 |
| Total | 122721 |

Is There a Suspected Release to Air: No

Wetlands Located Within 4 Miles of the Site: No

Other Sensitive Environments Located Within 4 Miles of the Site: No

Sensitive Environments Within 1/2 Mile of the Site:
None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