UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

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D.E.P.

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SOUTHWEST DISTRICT
TAMPA

4WD-RCRA

Mr. John Taylor
Universal Waste & Transit
9280 Bay Plaza Blvd.
Suite 707
Tampa, FL 33619-4453

SUBJ: RCRA Facility Assessment Report
Universal Waste & Transit, Inc.
EPA I.D. No. FLD 981 932 494

Dear Mr. Taylor:

The purpose of this letter is to provide clarification on three comments that you submitted regarding the May 9, 1995, RCRA Facility Assessment (RFA) Report for Universal Waste & Transit (UWT), which you recently reviewed. The following are your comments along with EPA's responses:

COMMENT #1: The report does not identify if a HSWA permit would be required or issued. UWT believes a HSWA permit would not be necessary (and therefore not issued) since no further action is required other than confirmatory sampling.

EPA RESPONSE:

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) authorizes EPA to require corrective action for releases of hazardous wastes and/or hazardous constituents from Solid Waste Management Units (SWMUs) and other Areas of Concern (AOCs) at all RCRA Treatment, Storage, and Disposal facilities (TSDFs). The intention of this authority is to address previously unregulated releases from SWMUs, and releases to air, surface water, and soils from regulated units.

The first phase of the corrective action program, as established by EPA, is development of a RCRA Facility Assessment (RFA). The RFA includes a Preliminary Review (PR) of all available relevant documents and a Visual Site Inspection (VSI). Based on the results of these investigations, the SWMUs and AOCs at the facility are identified, and each is assessed as to its potential for release of hazardous constituents and its need for corrective action.

The RFA serves as a screen, eliminating SWMUs, environmental media or entire facilities from further consideration where EPA determines that there is no evidence of a release or likelihood of a release that poses a threat to human health and the environment. The RFA is then used as the informational basis for preparation of the HSWA portion of the RCRA Permit. The State of Florida's Permit will cover those portions of RCRA for which it has final authorization to administer, and the Federal permit addresses HSWA requirements. Together these permits constitute the RCRA Permit for the facility.

(Because UWT has received an Operating permit from the State of Florida, a HSWA Permit is necessary in order to form a complete RCRA Permit. Therefore, a federal permit is necessary even if no further action is required at the facility at the present time).

COMMENT #2: **The report identifies SWMU #3 (retention pond) as a surface impoundment. The SWMU is a retention pond and not a surface impoundment. Please delete all references to surface impoundment.**

EPA RESPONSE:

EPA was aware of this error within the report and managed to remove it from all locations except this one. This reference to the surface impoundment will be deleted.

COMMENT #3: **The report states that confirmatory soil sampling for the retention pond, and confirmatory sampling of influent and effluent of the stormwater pretreatment system have been suggested. The report does not give specific sampling and analytical requirements for the suggested further actions of these areas of concern.**

EPA RESPONSE:

As stated above, the RFA serves as a screen, eliminating SWMUs, environmental media or entire facilities from further consideration where EPA determines that there is no evidence of a release or likelihood of a release that poses a threat to human health or the environment. Confirmatory Sampling (CS) will be required when UWT is issued a HSWA Permit. Under the HSWA Permit, the CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. Specific details of proposed sampling and

analysis (to be performed by UWT) will be required to be submitted by UWT for EPA approval.

If you have any further questions regarding this matter, please contact Ms. Kimberly C. Clifton, of my staff at (404) 347-3555 ext. 6320.

Sincerely,

G. Alan Farmer
Chief, RCRA Branch
Waste Management Division

cc: Satish Kastury, FDEP, Tallahassee
Roger Evans, FDEP, SW District

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

June 29, 1995

Mr. Alan Farmer, Chief
RCRA Branch, Waste Management. Division
U. S. Environmental Protection Agency
Region IV
345 Courtland St., NE
Atlanta, Georgia 30365

RE: Universal Waste & Transit, Inc., Tampa, Florida;
FLD 981 932 494
RCRA Facility Assessment (RFA) Report
Revised Draft: March 1995

Dear Mr. Farmer:

Subsequent to a phone conversation between Maher Budeir of my staff and Ms. Kim Clifton on June 29, 1995, we are enclosing revised pages to the RFA Report dated March 30, 1995. Please insert these pages for a final submittal. A complete copy of the report is also provided so that it may be sent to the facility.

If you have any questions regarding this matter, please contact Maher Budeir or Bheem Kothur at (904) 488-0300.

Sincerely,

Satish Kastury
Environmental Administrator
Hazardous Waste Regulation

SK/bk/mb

Enclosures

cc: Kent Williams/EPA, Region IV (w/enclosures)
✓William Crawford/FDEP, Tampa (w/enclosures)

I. EXECUTIVE SUMMARY

This RCRA Facility Assessment (RFA) is based on a Preliminary Review (PR) of United States Environmental Protection Agency (EPA) Region IV and Florida Department of Environmental Protection (FDEP) files and a Visual Site Inspection (VSI) of the Universal Waste & Transit, Inc. (UW&T) facility in Tampa, Florida (EPA ID. No. FLD 981 932 494). The PR was performed during the week of February 15-19, 1993 and the VSI was conducted on February 25, 1993. The purpose of the RFA is to identify Solid Waste Management Units (SWMUs) and other potential sources of environmental contamination not necessarily involving wastes (other Areas of Concern - AOCs), and to evaluate their potential for release of hazardous wastes or hazardous constituents to air, surface water, soil, and ground water.

UW&T is a RCRA permitted drum storage and transporter facility which accepts hazardous and non-hazardous wastes from other off-site generators (including household), and treatment/disposal facilities. The UW&T facility began operation in 1990 and occupies approximately 1.4 acres. UW&T presently employs 18 people (including clerical, technical, and administrative staff). Hazardous wastes stored and transported at the facility include characteristic and listed wastes.

EPA conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at this facility on August 18, 1988. At that time the construction of the facility was not completed and it was determined that there was no evidence of a prior or continuing release of hazardous wastes or hazardous constituents at the site. Therefore, at that time, Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply.

The PR and VSI resulted in the identification of six (6) SWMUs. The findings and suggested further actions for this facility are summarized in Table 1. No further action has been suggested for four (4)of the SWMUs. Those units designated for no further action are as follows: Drum Storage Area and Five (5) Sumps (SWMU #1), Loading/Unloading Area (SWMU #2), Filter Press (SWMU #4), and Municipal Waste Dumpster (SWMU #5). Confirmatory soil sampling has been suggested for the unlined retention pond (SWMU #3). Confirmatory sampling of influent and effluent of the pre-treatment system (SWMU #6) has also been suggested.

During the February 25, 1993 VSI, regulatory staff and facility staff discussed sampling and analysis results on effluents prior to release into the retention pond. The facility stated that the stormwater effluent had undergone analysis once, and the current

carbon and sand filters from the storm water pre-treatment system had been utilized since the facility began operations in June 1990.

Three monitoring wells were installed on October 20, 1989 to establish initial compliance and future concurrence with state and federal regulations. Subsequent monitoring confirmed ground-water contamination which is believed to be attributed to either or both of the Superfund sites (Stauffer Chemical and Helena Chemical) located adjacent to the facility (see Appendix I & J). The two Superfund sites are currently under assessment in the remedial investigation phase (see Section II.G).

RCRA FACILITY ASSESSMENT REPORT

for

UNIVERSAL WASTE & TRANSIT, INC.

2002 N. Orient Road

Tampa, Florida

FLD 981 932 494

Prepared by

Florida Department of Environmental Protection

Division of Waste Management

Bureau of Solid and Hazardous Waste

Site Visit: Wanda Parker
Harry Desai

March 1995 (Final)

Florida Department of

Memorandum — Environmental Protection

TO: Doug Outlaw, Professional Engineer III, Tallahassee
Bheem Kothur, Professional Engineer II, Tallahassee
Hazardous Waste Section

THRU: Bill Crawford, Supervisor, Tampa
Hazardous Waste Section

FROM: Roger Evans, Engineer, Tampa
Hazardous Waste Section

DATE: March 28, 1995

SUBJECT: ***Universal Waste & Transit, Inc., FLD 981 932 494***
Comments on Draft RFA Report - Revised

The following report was reviewed as per your request. Please incorporate these comments into your report:

General
Please replace the word "drum" storage with "container" storage throughout the text, as UWT stores waste in various types of containers and not only in 55-gallon drums.

B. Facility Description (page II-4)
The changes made to accommodate EPA do not reflect UWT permit conditions. UWT is a permitted Hazardous Waste Treatment and Container Storage Facility, although they have not exercised their option to conduct treatment operations at the site.

Paragraph 3 (page II-6)
The Filter Press is located in Bay #1 and not in Bay #3 as identified in the text.

C. Process Description (page II-6)
Line 2: Insert the word "tractor trailers" to this sentence since this is a primary mode of transportation of waste entering and leaving the facility.

Line 4: The facility also utilizes roll-off containers as storage. Please incorporate this to the list.

D. Waste Management Practices (page II-8)

Line 1: UWT accepts wastes transported in various types of vehicles. Either restructure this sentence to include all forms of transportation or none at all.

F. Regulatory Applicability and History (page II-9)

FDEP's response for Item 3 did not reflect the names of the inspectors who conducted the other two Comprehensive Evaluation Inspections (CEI).

State of Florida DEPARTMENT OF ENVIRONMENTAL ~~REGULATION~~ PROTECTION

D.E.P.

MAR 23 1995

SOUTHWEST DISTRICT TAMPA

Interoffice Memorandum

TO: BILL CRAWFORD - E IV.

FROM: Doug / Bheem

SUBJECT: ~~DRAFT~~ UW&T - RFA REPORT - REVISED

DATE: MARCH 22, 1995

Dear BILL:

Please review and comment on the above subject document. And also review EPA comments and DEP responses. We are planning to send this Draft report and responses to EPA on 3/31/95. Therefore please send your comments to us on/before 3/31/95 date, so that we can incorporate your Comments, and input into the report.

Your cooperation in this matter is greatly appreciated.

If you have any questions on this report please do not hesitate contact Mr. Bheem at 904-488-0300.

NOTE: Appendices "D" TO "Q" is not enclosed. For your information you can refer previous report.

Sincerely,

Bheem.

JW

Doug, the report still needs the following:

- Editing Table of Content
- Page number
- Edit SWMU Data sheets
- final Edit.

I will finish it on Monday when I return.

Meanwhile, the main report text may be sent to Bheem / District for comments.

Mali.

Bheem, ~~send~~
Pls send appropriate sections to Bill Crawford Doug

Universal Waste & Transit
FLD 981 932 494

EPA Comments and FDEP Responses

GENERAL COMMENTS

1. Appendix A - SWMU DATA SHEETS

   Under the title Release Pathways, the potential for release (Low, Moderate, or High) should be included beside each media, on each SWMU DATA SHEETS.

FDEP Response: All SWMU data sheets are revised to include the potential for release (Low, Moderate, or High).

2. Summary and Recommendations

   The following summary tables should be included as the summary: (1) a list of all SWMUs and/or AOCs, (2) a list of SWMUs and AOCs requiring no further action, (3) a list of SWMUs that are RCRA-regulated units, (4) SWMUs and AOCs that require confirmatory sampling (5) SWMUs and AOCs that require an RFI. The summary tables basically consist of lists of SWMUs and AOCs which correspond to the particular table heading.

FDEP Response: The summary tables are expanded to include all the list of tables as outlined and described in the report. Please see tables 1 thru 6.

3. SWMU and AOC Descriptions

   None of the data sheets are adequately detailed. These data sheets should include a complete physical description, including location, physical dimensions, materials of construction, condition of unit, description and condition of any containment, brief mention of the use of the unit.

   In addition to these comments, specific comments on each SWMU data sheet are included.

FDEP Response: The SWMU and AOC Data Sheets are revised to reflect the comments. All data sheets are revised accordingly to the comments for each individual SWMU and AOC data sheet.

4. The operating period for all the SWMUs identified at the facility is listed on the SWMU Data Sheets as June 1990 - present, for some of the SWMUs this is

incorrect. The actual dates of operation for all SWMUs needs to be verified.

FDEP Response: The operating period for each SWMU has been verified and corrected, as appropriate, on the data sheets.

SPECIFIC COMMENTS

I. Executive Summary (p. I-1)

1. Paragraph 1 - The words "Preliminary Review" should be capitalized.

FDEP Response: Paragraph 1 has been revised to correct the error.

2. Paragraph 2

   a. This paragraph describes Universal Waste and Transit (UW&T) as a permitted drum storage and physical treatment facility. Page II-4, under the title, "Facility Description" states that UW&T has never utilized any physical treatment..... This is contradictory, please explain.

FDEP Response: This paragraph has been rephrased. The permit included allowed physical treatment at the facility but no physical treatment actually occurred after the inital test.

   b. Lines 5-8 state, "Hazardous wastes stored and transported at the facility include characteristic and listed hazardous and non-hazardous wastes. Delete the highlighted words as they contradict line 5.

FDEP Response: Paragraph 2 has been rephrased to correct the error.

3. Paragraph 4

This paragraph is written as follows: During the February 25, 1993 VSI, regulatory staff and facility staff discussed sampling and analysis results on **effluent** prior to release into the retention pond. The facility stated that the effluent has undergone analysis once and the current carbon and sand filters from the storm water pre-treatment system had been solely utilized since the facility began operations.

a. What type of effluent is being discussed? Should this say wastewater effluent? stormwater effluent?

FDEP Response: The storm water effluent is being discussed and has been reworded in the paragraph.

b. This paragraph seems awkward. At this point in the RFA, the SWMUs have not yet been introduced, so the reader has no knowledge of a retention pond, not to mention any sampling that was done. This paragraph would be more appropriate if included after paragraph 1, on page I-2, although more background information is needed on the sampling and the pre-treatment system.

For example, when did sampling take place? What type of sampling was done? What were the results of sampling and analysis? Why is effluent being treated? When was this system installed?

FDEP Response: This paragraph has moved to Page I-2 to correct the error.

4. Paragraph 1 (page I-2)

Line 8 - The words "RFA Phase II should be replaced with the word "Confirmatory."

FDEP Response: This paragraph has been reworded to correct error.

5. Paragraph 2 (page I-2)

Line 4 - The word "contamination" should be replaced with the words "ground-water contamination."

FDEP Response: This paragraph has been reworded accordingly.

II. Introduction (p. II-3)

1. Paragraph 1, line 4 - Delete the letter "s" in the word "constituents."

FDEP Response: The error has been corrected.

2. Paragraph 2, line 4 - The complete date of the preliminary review should be listed here (February 15-19, 1993). Please insert.

FDEP Response: The complete date has been inserted on p.II-3.

3. Delete paragraph 3 as it is not necessary in this section.

FDEP Response: The paragraph has been deleted from this section.

A. File Search and Visual Site Inspection (p. II-4)

1. Delete lines 5-10 starting with the words "The VSI" and ending with the word "investigation."

FDEP Response: These lines has been deleted to correct the error .

2. Paragraph 3, line 2

   a. Insert the word "is" after the word "information."

FDEP Response: The word has been inserted to correct the error.

   b. Delete the word "as" following the word "appendix," which should be capitalized.

FDEP Response: The word has been deleted and capitalized to correct the error.

   c. Define the acronym SWFWMD used in line 6.

FDEP Response: The acronym has been defined as per comment.

B. Facility Description (p. II-4)

1. Paragraph 1

   a. The first two lines of this paragraph describe UW&T as a drum storage and physical treatment facility. Lines 7 & 8 claim UW&T never utilized any physical treatment. Which statement is correct? If UW&T never utilized any physical treatment, then this facility should not be identified as a treatment and storage facility. Explain.

The changes made to accomodate EPA do not reflect UW&T permit conditions. The original statement should be revised to include the word "permitted".

FDEP Response: This paragraph has been revised to correct the error.

   b. Lines 5,6, & 7 belong in the section titled Regulatory Applicability and History. Please revise.

FDEP Response: This section was restructured according to the comment provided by EPA.

   c. Lines 7 & 10 are unclear. Please revise.

FDEP Response: The lines have been revised accordingly.

d. Line 13 mentions Helena Chemical. The words Superfund site should be enclosed in parenthesis

FDEP Response: The words have been enclosed in parenthesis to correct the error.

e. Line 15 mentions Stauffer Chemical. The words Superfund site should be enclosed in parenthesis.

FDEP Response: The words have been enclosed in parenthesis to correct error.

f. On line 16, the word "consultant firm" should be replaced with "consulting firm"

FDEP Response: The word has been replaced with "consulting firm"..

C. Process Description (p. II-6)

The process description needs to be restructured.

FDEP Response: This section has been restructured to reflect EPA comments.

D. Waste Management Practices (p. II-7)

This section needs to be restructured.

FDEP Response: This section has been restructured to reflect EPA comments.

E. Facility Waste Generation (p. II-8)

1. Paragraph 1 states that according to UW&T's 1991 Hazardous Waste Biennial Report, they generated 525,690 pounds of waste at the facility in 1991. What type of waste is this? Is this wastewater? Explain.

FDEP Response: This waste consists of halogenated and non-halogenated solvents, chemicals, sludges, and debris and the said paragraph has been revised to clarify the comment.

2. The information included in the remaining paragraphs belongs in the SWMU data sheets and should be deleted from this section.

FDEP Response: The remaining paragraphs have been deleted as per comment.

F. Regulatory Applicability and History (p. II-~~10~~ 9)

1. Paragraph 1 states that FDEP Tampa issued UW&T a full RCRA permit. FDEP (formerly FDER) could not have issued UW&T full RCRA permit because they are not authorized to issue the HSWA portion of the RCRA permit. A full RCRA permit includes the base portion which is issued by EPA.

FDEP Response: The paragraph has been revised to reflect EPA's comment.

2. EPA recommends that lines 8-10 be deleted, as the information presented here is no longer correct.

FDEP Response: The lines have been deleted to reflect EPA's comment.

3. The CEI's that were mentioned on page II-11, paragraph 1, who were they conducted by?

FDEP Response: The paragraph has been revised to clarify the detailed information.

who conducted the other two CEI's?

4. Is this facility really subject to Subpart AA/BB requirements or was this added due to previous comments submitted?

FDEP Response: This paragraph was added per previous comments submitted by EPA dated June 28, 1993.

G. Release History (p. II-~~11~~ 9)

1. In paragraph 2, what constituents were found in the groundwater? How many monitoring wells exist at this facility? When were the wells installed and what was the rationale for their placement?

FDEP Response: UW&T installed three (3) monitoring wells on October 20, 1989 prior to operation to verify non-contamination of the site and to monitor for future reference due to the activities surrounding the site location. Subsequent sampling and analysis of wells indicate groundwater contamination with total phenols, 2,4-D, ethylbenzene, toluene, lindane-gamma BHC, other organics, arsenic and other inorganics. The said paragraph has been revised to reflect EPA's comments.

2. On line 8, the word "ground-water" should be inserted between the words "some" and "contamination."

FDEP Response: This line has been revised to insert the word groundwater to correct the error.

3. Paragraph 3, line 8 - The words "stormwater" should precede the word "run-off."

FDEP Response: The line has been revised to correct the error.

4. Paragraph 3, page II-14 - A word appears to be missing from line 11. Should it say, "... and groundwater contamination."

FDEP Response: This paragraph has been revised on page II-11 to add the missing word.

5. Figure 3 - Monitoring Well Location Map
This figure is illegible. Please replace this with a legible copy.

FDEP Response: The most legible copy of this figure has been provided.

H. Environmental and Demographic Setting

1. Topography and Drainage (p. II-13) Identify UW&T on Figure 4.

FDEP Response: UW&T has been identified on Figure 4.

2. Geology and Ground Water (p. II-15)

On line 5, the word "silt" is misspelled. Delete the word "snaky."

FDEP Response: This line has been revised to correct the error.

III. Solid Waste Management Units (p. III-18)

In paragraph 2, insert the word "were" proceeding the word "identified."

FDEP Response: This paragraph has been revised to correct the error.

IV. Summary and Recommendations

FDEP Response: All summary tables are included in this revised RFA report.

V. Suggested Sampling Strategy (p. V-21)

Delete the Suggested Sampling Strategy tables on pages V-21 and V-22.

FDEP Response: This section has been deleted from from table of contents as well as pages V-21 and V-22.

APPENDIX A, SWMU DATA SHEETS

FDEP Response: All SWMU data sheets has been revised to reflect EPA's comments. Please see SWMU Data Sheets from 1 to 6.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

April 6, 1993

Mr. Alan Farmer, Chief
Division of Waste Management
U.S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

RE: Missing Pages for Universal Waste & Transit RFA Report; FLD981932494.

Dear Mr. Farmer:

The enclosed RFA Report pages were inadvertently left out of your original copy. Also, please find enclosed an extra copy of the report. If there are any questions, contact Wanda Parker or myself at (904) 488-0300.

Sincerely,

Bheem Kothur
Professional Engineer
Hazardous Waste Regulations

cc: Gary Santini - FDER Southwest (w/enclosure)

I. EXECUTIVE SUMMARY

This RCRA Facility Assessment (RFA) is based on a preliminary review (PR) of U.S. Region IV and Florida Department of Environmental Regulation (FDER) files and a Visual Site Inspection (VSI) of the Universal Waste & Transit, Inc. (UW&T) facility in Tampa, Florida (EPA I.D. No. FLD981932494). The PR was performed during the week of February 15-19, 1993 and the VSI was conducted on February 25, 1993. The purpose of the RFA is to identify Solid Waste Management Units (SWMUs) and other potential sources of environmental contamination not necessarily involving wastes (other Areas of Concern - AOCs), and to evaluate their potential for release of hazardous wastes or hazardous constituents to air, surface water, soil, and ground water.

UW&T is a RCRA permitted drum storage and physical treatment facility. The UW&T facility began operation in 1990 and occupies approximately 1.4 acres. UW&T presently employs 18 people (including clerical, technical, and administrative staff). Hazardous wastes stored and transported at the facility include characteristic and listed hazardous and non-hazardous wastes such as Ignitable, Corrosive, Reactive (EPA waste codes D001, D002, and D003 respectively); Toxic (EPA waste codes D004-D043); Halogenated and Non-halogenated solvents (EPA waste codes F001 - F005); Electroplating Sludges (EPA waste code F006); Electroplating Wastes (EPA waste codes F007-F012); Manufactured HCL (EPA waste codes F020-F024), Wood Preservatives (EPA waste code K001); Inorganic Pigments (EPA waste codes K002-K011, K013-K030, K083, K085, K093-K096); Organic Chemicals (EPA waste codes K103-K105) Inorganic Chemicals (EPA waste codes K071, K073, K106); Pesticides (EPA waste codes K031-K043, K097-K099); Petroleum Refining Wastes (EPA waste codes K048-K052); Iron and Steel Wastes (EPA waste codes K061 and K062); Secondary Lead Wastes (EPA waste codes K069 and K100); Veterinary Pharmaceutical Wastes (EPA waste codes K084, K101 and K102); Ink Formulation Wastes (EPA waste code K086); Coking Wastes (EPA waste codes K060 and K087); Acute Hazardous Wastes ("P" Listed Wastes) and Toxic Wastes ("U" Listed Wastes).

The Environmental Protection Agency (EPA) conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at this facility on August 18, 1988. At that time this was a new facility and it was determined that there has been no evidence of a prior or continuing release

of hazardous wastes or hazardous constituents at the site. Therefore, at that time Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply.

During the February 25, 1993 VSI, regulatory staff and facility staff discussed sampling and analysis results on effluents prior to release into the retention pond. The facility stated that the effluent had undergone analysis once and the current carbon and sand filters from the storm water pre-treatment system had been solely utilized since the facility began operations.

The PR and VSI resulted in the identification of six (6) SWMUs and one (1) AOC. The findings and suggested further actions for this facility are summarized in Table 1. No further action has been suggested for four (4)of the SWMUs. Those units designated for no further action are as follows: Drum Storage Area and Five (5) Sumps (SWMU #1), Loading/Unloading Dock (SWMU #2), Filter Press (SWMU #4), and Municipal Waste Dumpster (SWMU #5). RFA Phase II soil sampling has been suggested for the unlined retention pond (surface impoundment - SWMU #3) and the pre-treatment system (prior to effluent entering and leaving the system). The sampling is warranted because the effluent has undergone analysis only once and the current carbon and sand filters have not been replaced since facility operations began.

The facility needs to demonstrate that the up gradient monitoring well is as contaminated as the down gradient wells thereby establishing that the UW&T's facility operations are not contributing to the contamination of the three wells.

II. INTRODUCTION

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) authorized EPA to require corrective action for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs at all operating, closed, or closing RCRA facilities. The intent of the authority was to address previously unregulated releases to air, surface water, soil and ground water. The first phase of the corrective action program, as established by EPA, is a RCRA Facility Assessment (RFA). The RFA includes a Preliminary Review (PR), during which information concerning the facility is reviewed and a preliminary list of SWMUs and AOCs is developed. The PR is followed by a Visual Site Inspection (VSI), which consists of a site visit where SWMUs and AOCs are assessed to determine the potential for release of hazardous wastes or hazardous constituents to the environment. If warranted, a sampling visit may be performed to further evaluate hazardous waste or hazardous constituents releases.

This report summarizes the results of the PR and VSI portions of the RFA for the Universal Waste & Transit, Inc. (UW&T), Tampa, Florida, EPA I.D. No. FLD981932494. The PR was conducted in February 1993 and the VSI was conducted on February 25, 1993. A total of six (6) SWMUs and one (1) AOC were identified as a result of the PR and VSI.

UW&T is a RCRA permitted drum storage and physical treatment facility. The facility began operations in 1990. Hazardous wastes stored and transported at the facility include characteristic and listed hazardous and non-hazardous waste (see appendix C-1, permitted RCRA Wastes Summary).

The remainder of the section descibes the file search and VSI, facility description, processes, waste management practices, waste generation, regulatory history, release history, and environmental setting. Descriptions of the SWMUs and AOCs for the facility is presented in Section III along with conclusions regarding potential for release and suggested further actions. Section IV contains tables which categorize and assess SWMUs and AOCs according to the suggested further action.

A. FILE SEARCH AND VISUAL SITE INSPECTION (VSI)

The facility file search was done the week of February 15-19, 1993 at the Tallahassee FDER office. The file search consisted of the review of Universal Waste & Transit's (UW&T) November 15, 1990 and May 21, 1991 RCRA Compliance Inspection Reports, Permitting files, Superfund files, the Permit Application and the Operating Permit . The file search enabled staff to compile background data on existing and potential SWMUs/AOCs and the regulatory history of the facility.

The VSI was conducted on February 25, 1993 by both FDER and EPA staff. The inspection was led by Wanda Parker (FDER) and Harry Desai (EPA). The other attendees were Bheem Kothur (FDER), Roger Evans (FDER), and John Taylor, General Manager for UW&T. The VSI and the file search were conducted in accordance with the RCRA Facility Assessment (RFA) in order to evaluate information in determining existing and/or potential releases of hazardous waste to the public and the environment that warrant further investigation.

Additional information was provided by the facility after the VSI. This information included in appendix as F. Soil Boring Sampling and Analysis Data; G. Storm Water Pre-Treatment Specifications; H. Initial Ground Water Monitoring Data; I. Subsequent Ground Water Monitoring Data: J. Effluent Sampling and Analysis Data; and SWFWMD Storm Water Discharge Permit.

B. FACILITY DESCRIPTION

Universal Waste & Transit, Inc. is a RCRA permitted drum storage and physical treatment facility located at 2002 N. Orient Road, Tampa, Hillsborough County, Florida (see Figure 1). The facility began operations in June of 1990 and currently has RCRA Treatment and Storage Permit and a Southwest Florida Water Management District Storm water Discharge permit (see Appendix L). UW&T's facility, located approximately five (5) miles east of downtown Tampa in a Heavy Industrial Zone, is bound to the west by National Fisheries, to the Northwest by Helena Chemical Superfund site, the north by a metal recycling facility, to the east by Stauffer Chemical Superfund site and to the south by a consultant firm. UW&T has an office trailer which houses the laboratory facility.

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

May 9, 1995

Mr. Alan Farmer, Chief
Division of Waste Management
U.S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

RE: Universal Waste & Transit, Inc., Tampa, Florida;
FLD 981932494.
RCRA Facility Assessment (RFA) Report
Revised Draft : March 1995

Dear Mr. Farmer:

Subsequent to a phone conversation between Maher Budeir of my staff and Ms. Kim Clifton on May 8, 1995, we are enclosing revised pages to the RFA Report Dated March 30, 1995. Please insert these pages for a final submittal. A complete copy of the report is also provided so that it may be sent to the facility.

If your have any questions regarding this matter, please contact Maher Budeir or Bheem Kothur at (904)488-0300.

Sincerely,

Satish Kastury for
Environmental Administrator
Hazardous Waste Regulation

MB

SK/bk/mb
enclosures
cc: William Crawford-FDEP Southwest (w/enclosure)
Kent Williams - EPA Region IV (w/enclosure)

I. EXECUTIVE SUMMARY

This RCRA Facility Assessment (RFA) is based on a Preliminary Review (PR) of United States Environmental Protection Agency (EPA) Region IV and Florida Department of Environmental Protection (FDEP) files and a Visual Site Inspection (VSI) of the Universal Waste & Transit, Inc. (UW&T) facility in Tampa, Florida (EPA ID. No. FLD 981 932 494). The PR was performed during the week of February 15-19, 1993 and the VSI was conducted on February 25, 1993. The purpose of the RFA is to identify Solid Waste Management Units (SWMUs) and other potential sources of environmental contamination not necessarily involving wastes (other Areas of Concern - AOCs), and to evaluate their potential for release of hazardous wastes or hazardous constituents to air, surface water, soil, and ground water.

UW&T is a RCRA permitted drum storage and transporter facility which accepts hazardous and non-hazardous wastes from other off-site generators (including household), and treatment/disposal facilities. The UW&T facility began operation in 1990 and occupies approximately 1.4 acres. UW&T presently employs 18 people (including clerical, technical, and administrative staff). Hazardous wastes stored and transported at the facility include characteristic and listed wastes.

EPA conducted a Visual Site Inspection (VSI) at this facility on August 18, 1988. At that time the construction of the facility was not completed and it was determined that there was no evidence of a prior or continuing release of hazardous wastes or hazardous constituents at the site. Therefore, at that time, Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply.

The PR and VSI resulted in the identification of six (6) SWMUs. The findings and suggested further actions for this facility are summarized in Table 1. No further action has been suggested for four (4)of the SWMUs. Those units designated for no further action are as follows: Drum Storage Area and Five (5) Sumps (SWMU #1), Loading/Unloading Area (SWMU #2), Filter Press (SWMU #4), and Municipal Waste Dumpster (SWMU #5). Confirmatory soil sampling has been suggested for the unlined retention pond (surface impoundment - SWMU #3). Confirmatory sampling of influent and effluent of the pre-treatment system (SWMU #6) has also been suggested.

During the February 25, 1993 VSI, regulatory staff and facility staff discussed sampling and analytical results of stormwater effluent prior to release into the retention pond. The facility stated that the stormwater effluent had undergone analysis once, and the

current carbon and sand filters from the storm water pre-treatment system had been utilized since the facility began operations in June 1990.

Three monitoring wells were installed on October 20, 1989 to establish initial compliance and future concurrence with state and federal regulations. Subsequent monitoring confirmed ground-water contamination which is believed to be attributed to either or both of the Superfund sites (Stauffer Chemical and Helena Chemical) located adjacent to the facility (see Appendix I & J). The two Superfund sites are currently under assessment in the remedial investigation phase (see Section II.G).

II. INTRODUCTION

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) authorized EPA to require corrective action for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs at all operating, closed, or closing RCRA facilities. The intent of the authority was to address previously unregulated releases to air, surface water, soil and ground water. The first phase of the corrective action program, as established by EPA, is a RCRA Facility Assessment (RFA). The RFA includes a Preliminary Review (PR), during which information concerning the facility is reviewed and a preliminary list of SWMUs and AOCs is developed. The PR is followed by a Visual Site Inspection (VSI), which consists of a site visit where SWMUs and AOCs are assessed to determine the potential for release of hazardous wastes or hazardous constituents to the environment. If warranted, confirmatory sampling may be performed to further evaluate hazardous waste or hazardous constituent releases.

This report summarizes the results of the PR and VSI portions of the RFA for the Universal Waste & Transit, Inc. (UW&T), Tampa, Florida, EPA I.D. No. FLD 981 932 494. The PR was conducted on February 15-19, 1993 and the VSI was conducted on February 25, 1993. A total of six (6) SWMUs were identified as a result of the PR and VSI.

The remainder of the section describes the file search and VSI, facility description, processes, waste management practices, waste generation, regulatory history, release history, and environmental setting. Descriptions of the SWMUs for the facility are presented in Section III along with conclusions regarding potential for release and suggested further actions. Section IV contains tables which categorize and assess SWMUs according to the suggested further action.

A. FILE SEARCH AND VISUAL SITE INSPECTION (VSI)

The facility file search was done the week of February 15-19, 1993 at the Tallahassee FDEP office. The file search consisted of the review of Universal Waste & Transit's (UW&T) November 15, 1990 and May 21, 1991 RCRA Compliance Inspection Reports, Permitting files, Superfund files, the Permit Application and the Operating Permit . The file search enabled staff to compile background data on existing and potential SWMUs/AOCs and the regulatory history of the facility.

The VSI was conducted on February 25, 1993 by both FDEP and EPA staff. The inspection was led by Wanda Parker (FDEP) and Harry Desai (EPA). The other attendees were Bheem Kothur (FDEP), Roger Evans (FDEP), and John Taylor, General Manager for UW&T.

Additional information was provided by the facility after the VSI. This information is included in Appendix G -Soil Boring Sampling and Analysis Data; Appendix H - Storm Water Pre-Treatment Specifications; Appendix I - Initial Ground Water Monitoring Data; Appendix J - Subsequent Ground Water Monitoring Data; Appendix K - Effluent Sampling and Analysis Data; and Appendix M - Southwest Florida Water Management District (SWFWMD) Storm Water Discharge Permit.

B. FACILITY DESCRIPTION

UW&T is a RCRA-permitted Hazardous Waste Treatment and Container Storage Facility which accepts hazardous and non-hazardous wastes (including household wastes) from generators and other off-site treatment/disposal facilities. The facility has a maximum storage capacity of 33,600 gallons.

UW&T is located at 2002 N. Orient Road in Tampa, Hillsborough County, Florida within the northwest quadrant of the intersection of Orient Road and 9th Avenue in Tampa, Florida (Figure 1). The facility is located on 1.4 acres of previously undeveloped land, approximately five miles east of downtown Tampa in a heavy industrial zone. UW&T is bounded on the west by National Fisheries, on the northwest by Helena Chemical (Superfund site), on the north by a metal recycling facility, on the east (across Orient Road) by Stauffer Chemical (Superfund site), and on the south (across 9th Avenue) by a consulting firm .

The facility began operations in June of 1990 and currently has a RCRA Storage and Treatment Permit (see Appendix P), and a Southwest Florida Water Management District Storm Water Discharge Permit (see Appendix M). The facility occupies a 5,866 square foot concrete building (approximately 120 ft X 50 ft), which contains the drum storage area. The drum storage area is composed of three separate bays (see Figure 2). Bays 1 & 3 are non-flammable storage areas (each containing 2 sumps), while Bay 2 is a flammable, reactive, and aerosol storage area (containing a single sump). Each sump has a storage capacity of approximately 1,000 gallons (see Figure 2). A concrete floor is continuos under all three bays in this area. The five (5) sumps located in the drum storage area are concrete holding units (with no outflow) to be used in the event of a spill, and would have to be removed with a portable pump. The facility also

contains a Loading/Unloading area, stormwater retention pond, and office/laboratory trailer. The western portion of the property is currently undeveloped.

The Loading/Unloading Area is approximately 120 feet long and 80 feet wide, and is directly connected to the west side of the drum storage area. The elevation of this area is approximately three feet lower than the drum storage area to allow for truck loading and unloading. At the southeastern corner of this area, there are two ramps, one ramp levels to the drum storage area floor level, and the other elevates approximately two feet, to allow for small truck loading\unloading. The eastern half of this area (approximately 120 feet X 40 feet) is paved with concrete, and is sloped toward a concrete drain that drains in a north-south direction near the middle of the concrete floor. The remainder of this area is paved with asphalt and is also sloped towards the ditch drain. West of this area is an asphalt employee parking lot and the office/laboratory trailer.

The stormwater effluent from the ditch drain in the Loading/Unloading Area flows into a concrete holding tank, and is then pumped through a sand filter and an activated carbon filter before being discharged to the stormwater system. Effluent from this pre-treatment system is combined with other stormwater runoff before being discharged to the retention pond located east of the drum storage area near the eastern boundary of the facility. There is an overflow storm drain in place near the southeastern corner of the pond.

A Filter Press is located in the drum storage area, near the southwestern corner of bay #3. The Filter Press is currently not in operation, and was operated only once.

A Municipal Waste Dumpster is located on the asphalt paved area west of the drum storage area.

C. PROCESS DESCRIPTION

UW&T began accepting hazardous and non-hazardous wastes (including household waste) in 1990. These wastes are transported into and out of the facility via tractor trailers, flat-beds, and small trucks. The facility primarily utilizes 55 gallon drums for storage, although "tote tanks", "overpacks", "jumbo sacks", roll-off containers, and other containers are used occasionally.

III. SOLID WASTE MANAGEMENT UNITS

The VSI identified six (6) Solid Waste Management Units (SWMU) at the facility. Table 1 summarizes all of the identified SWMUs, Appendix A provides a detailed description of each SWMU, and Appendix B provides photo of the facility and identified SWMUs that were taken during the VSI.

The following SWMUs were identified at the UW&T facility in Tampa, Florida:

1. Drum Storage Area
2. Loading/Unloading Area
3. Retention Pond
4. Filter Press
5. Municipal Waste Dumpster
6. Pre-Treatment Unit

IV. SUMMARY AND RECOMMENDATIONS

Confirmatory soil sampling is recommended at the stormwater pond (SWMU #3), and influent and effluent sampling should be conducted at the Pre-Treatment Unit (SWMU #6). The sampling is warranted because the retention pond has not undergone analysis. In addition, it has not been demonstrated that the Pre-Treatment Unit's effluent is not contributing to the groundwater contamination. The remaining SWMUs warrant no further action considering their condition during the VSI, and there is no indication of releases to the environment.

The Initial Groundwater Sampling Data (Appendix I) indicated that the following constituents were above Method Detection Limits (MDL):

Contaminant	MCL*	(11/89) Highest Concentration	Well with highest Concentration.
a-BHC (608-Organochlorine Pesticides and PCBs)	No MCL	350 µg\l	MW-3
Naphthalene	No MCL	36 µg\l	MW-1
Arsenic	50 µg\l	70 µg\l	MW-3
Chromium	100 µg\l	110 µg\l	MW-3
Lead	15 µg\l	1800 µg\l	MW-3
Benzene	1 µg\l	17 µg\l	MW-3
Chlorobenzene	No MCL	3.2 µg\l	Irrigation well
1,2-Dichlorobenzene	600 µg\l	43 µg\l	MW-3
1,4-Dichlorobenzene	75 µg\l	110 µg\l	MW-3

* MCL : Maximum Contamination Level.

In conclusion, concentrations of most groundwater contaminants seem to be higher in MW-3 and MW-1, which are upgradient wells. It seems that ground water contamination was most likely caused by off-site contamination at either of the Superfund sites. However, it is recommended that UW&T perform the above mentioned samplings to demonstrate that the facility is not contributing to the contamination of three ground water monitoring wells. Table 1 and Appendix A provide summarized and detailed recommendations for the SWMUs identified during the VSI.

SWMU DATA SHEET

SWMU NUMBER: 1 PHOTO NUMBER: 3,4,5,13,14,15,16, 17 and 19

NAME: Drum Storage Area

TYPE OF UNIT: Drum Storage Area and Five (5) Sumps

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The concrete drum storage area is located in the eastern side of the property between the retention pond (SWMU #3) and the loading/unloading area (SWMU #2) (see Figure 2.1). It is used to store primarily 55 gallon drums of permitted hazardous and non-hazardous wastes. The drum storage area is separated into three (3) bays and segregated by waste compatibility. Each bay area is sloped toward the nearest sump. The five (5) sumps are actually holding units to be used in the event of a spill and would have to be manually pumped. The collection sumps are seamless and made of pre-cast concrete coated with sealant. The maximum storage area and sump volumes capacities are 33,600 gallons and 5000 gallons respectively. The interior sumps are visually inspected daily. The sump openings were the only visible migration pathway. The storage area and sumps were visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: D001-D043, F001-F012, F020-F028, K001-K011, K013-K043, K048-K052, K060-K062, K069, K071, K073, K083-K087, K093-K106, "P" Listed Wastes from acute hazardous wastes, "U" Listed Wastes from toxic wastes, Non-hazardous wastes.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:		
	No Further Action	(x)
	Confirmatory Sampling	( )
	RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS: The drum storage area is a regulated unit for storage.

SWMU DATA SHEET

SWMU NUMBER: 2 PHOTO NUMBER: 1, 3-5, and 8

NAME: Loading/Unloading Area

TYPE OF UNIT: Loading/Unloading Area

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The dock is a concrete surface with dimensions of approximately 64' x 34' and located immediately in front of the SWMU #1 and SWMU #4 and is used to load and unload permitted hazardous and non-hazardous wastes (see Figure 2.1). The loading area is sloped towards the containment trench. The dock area was visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: D001-D043, F001-F012, F020-F028, K001-K011, K013-K-43, K048-K052, K060-K062, K069, K071, K073, K083-K087, K093-K106, "P" Listed Wastes from acute hazardous wastes, "U" Listed Wastes from toxic wastes, Non-hazardous wastes.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:

No Further Action	(x)
Confirmatory Sampling	( )
RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS:

SWMU DATA SHEET

SWMU NUMBER: 3 PHOTO NUMBER: 10 and 11

NAME: Retention Pond

TYPE OF UNIT: Stormwater Retention Pond.

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The earthen pond is located on the far east side of the facility and just east of SWMU #1 and #4 (see Figure 2.1). It has dimensions of 126 ft by 35 ft with an average volume of 0.1355 acre-feet and a side slope of 3:1. Stormwater from Loading/Unloading Area is pre-treated via the carbon/sand filter system prior to release into the pond. There is an overflow storm drain in place at the southeast portion of the pond. The pond is used to retain pre-treated stormwater effluent. The pond was visibly in good condition. The facility has a Southwest Florida Water Management District (SWFWMD) Stormwater discharge permit (see Appendix M).

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: Storm water.

RELEASE PATHWAYS: Air (M) Surface Water (M) Soil (M)
Ground water (M) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None, although the pond has only been sampled once in the last year.

RECOMMENDATIONS:

No Further Action	( )
Confirmatory Sampling	(x)
RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS: Sampling of the pond is warranted in order to determine if there are and/or have been any releases to the environment. There has only been one sampling event which consisted of sampling/analyzing storm water prior to it entering the pre-treatment unit and draining into the pond.

SWMU DATA SHEET

SWMU NUMBER: 4 PHOTO NUMBER: 17 and 20

NAME: Filter Press

TYPE OF UNIT: Treatment Unit

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The filter press is located in Bay 1 within SWMU #1. The filter press is manufactured of structural steel and pneumatically operated. It is used to separate semi-solid sludge waste into liquid and solid components. Sludge is pumped directly from a container through the press where a filter bank captures the solid material. The liquid component is collected in an empty container. The process is performed on a batch basis. The Filter Press has the approximate dimensions of 2.6 feet by 10.25 feet by 3.6 feet and a maximum filter press capacity of 8 cubic feet. There is no utilization of electrical components. After the first trial run, use of the filter press was not found to be economically feasible. According to the facility, the filter press has only been used once, even though, the current RCRA permit allows the use of this unit. The filter press was visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: Heavy metal, non-organic Sludges.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:

No Further Action	(x)
Confirmatory Sampling	( )
RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS: The filter press was non-economical and was not used after the first trial. Therefore, the filter press is currently not in operation.

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

March 30, 1995

Mr. Alan Farmer, Chief
Division of Waste Management
U.S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

RE: Universal Waste & Transit, Inc., Tampa, Florida;
FLD 981932494.
RCRA Facility Assessment (RFA) Report
Revised Draft : March 1995

Dear Mr. Farmer:

We have revised the RFA draft report dated October 1993 and incorporated the comments from your letter dated September 7, 1994. The revised draft is forwarded for your approval. Also, EPA 's comments and DEP's responses are attached.

If your have any questions regarding this matter, please contact Maher Budeir or Bheem Kothur at (904)488-0300.

Sincerely,

Satish Kastury
Environmental Administrator
Hazardous Waste Regulation

SK/bk/mb
enclosures
cc: William Crawford-FDEP Southwest (w/enclosure)

Universal Waste & Transit
FLD 981 932 494

EPA Comments and FDEP Responses

GENERAL COMMENTS

1. Appendix A - SWMU DATA SHEETS

   Under the title Release Pathways, the potential for release (Low, Moderate, or High) should be included beside each media, on each SWMU DATA SHEETS.

FDEP Response: All SWMU data sheets are revised to include the potential for release (Low, Moderate, or High).

2. Summary and Recommendations

   The following summary tables should be included as the summary: (1) a list of all SWMUs and/or AOCs, (2) a list of SWMUs and AOCs requiring no further action, (3) a list of SWMUs that are RCRA-regulated units, (4) SWMUs and AOCs that require confirmatory sampling, and (5) SWMUs and AOCs that require an RFI. The summary tables basically consist of lists of SWMUs and AOCs which correspond to the particular table heading.

FDEP Response: The summary tables are expanded to include all the list of tables as outlined and described in the report. Please see tables 1 thru 6.

3. SWMU and AOC Descriptions

   None of the data sheets are adequately detailed. These data sheets should include a complete physical description, including location, physical dimensions, materials of construction, condition of unit, description and condition of any containment, brief mention of the use of the unit.

   In addition to these comments, specific comments on each SWMU data sheet are included.

FDEP Response: The SWMU and AOC Data Sheets are revised to reflect the comments. All data sheets are revised accordingly to the comments for each individual SWMU and AOC data sheet.

4. The operating period for all the SWMUs identified at the facility is listed on the SWMU Data Sheets as June 1990 - present, for some of the SWMUs this is

incorrect. The actual dates of operation for all SWMUs needs to be verified.

FDEP Response: The operating period for each SWMU has been verified and corrected, as appropriate, on the data sheets.

SPECIFIC COMMENTS

I. Executive Summary (p. I-1)

1. Paragraph 1 - The words "Preliminary Review" should be capitalized.

FDEP Response: Paragraph 1 has been revised to correct the error.

2. Paragraph 2

a. This paragraph describes Universal Waste and Transit (UW&T) as a permitted drum storage and physical treatment facility. Page II-4, under the title, "Facility Description" states that UW&T has never utilized any physical treatment..... This is contradictory, please explain.

FDEP Response: This paragraph has been rephrased. The permit included allowed physical treatment at the facility but no physical treatment actually occurred after the inital test.

b. Lines 5-8 state, "Hazardous wastes stored and transported at the facility include characteristic and listed hazardous and non-hazardous wastes. Delete the highlighted words as they contradict line 5.

FDEP Response: Paragraph 2 has been rephrased to correct the error.

3. Paragraph 4

This paragraph is written as follows: During the February 25, 1993 VSI, regulatory staff and facility staff discussed sampling and analysis results on effluent prior to release into the retention pond. The facility stated that the effluent has undergone analysis once and the current carbon and sand filters from the storm water pre-treatment system had been solely utilized since the facility began operations.

a. What type of effluent is being discussed? Should this say wastewater effluent? stormwater effluent?

FDEP Response: The storm water effluent is being discussed and has been reworded in the paragraph.

b. This paragraph seems awkward. At this point in the RFA, the SWMUs have not yet been introduced, so the reader has no knowledge of a retention pond, not top mention any sampling that was done. This paragraph would be more appropriate if included after paragraph 1, on page I-2, although more background information is needed on the sampling and the pre-treatment system.

For example, when did sampling take place? What type of sampling was done? What were the results of sampling and analysis? Why is effluent being treated? When was this system installed?

FDEP Response: This paragraph has moved to Page I-2 to correct the error.

4. Paragraph 1 (page I-2)

Line 8 - The words "RFA Phase II should be replaced with the word "Confirmatory."

FDEP Response: This paragraph has been reworded to correct error.

5. Paragraph 2 (page I-2)

Line 4 - The word "contamination" should be replaced with the words "ground-water contamination."

FDEP Response: This paragraph has been reworded accordingly.

II. Introduction (p. II-3)

1. Paragraph 1, line 4 - Delete the letter "s" in the word "constituents."

FDEP Response: The error has been corrected.

2. Paragraph 2, line 4 - The complete date of the preliminary review should be listed here (February 15-19, 1993). Please insert.

FDEP Response: The complete date has been inserted on p.II-3.

3. Delete paragraph 3 as it is not necessary in this section.

FDEP Response: The paragraph has been deleted from this section.

A. File Search and Visual Site Inspection (p. II-4)

1. Delete lines 5-10 starting with the words "The VSI" and ending with the word "investigation."

FDEP Response: These lines has been deleted to correct the error .

2. Paragraph 3, line 2

   a. Insert the word "is" after the word "information."

FDEP Response: The word has been inserted to correct the error.

   b. Delete the word "as" following the word "appendix," which should be capitalized.

FDEP Response: The word has been deleted and capitalized to correct the error.

   c. Define the acronym SWFWMD used in line 6.

FDEP Response: The acronym has been defined as per comment.

B. Facility Description (p. II-4)

1. Paragraph 1

   a. The first two lines of this paragraph describe UW&T as a drum storage and physical treatment facility. Lines 7 & 8 claim UW&T never utilized any physical treatment. Which statement is correct? If UW&T never utilized any physical treatment, then this facility should not be identified as a treatment and storage facility. Explain.

FDEP Response: This paragraph has been revised to correct the error.

   b. Lines 5,6, & 7 belong in the section titled Regulatory Applicability and History. Please revise.

FDEP Response: This section was restructured according to the comment provided by EPA.

   c. Lines 7 & 10 are unclear. Please revise.

FDEP Response: The lines have been revised accordingly.

d. Line 13 mentions Helena Chemical. The words Superfund site should be enclosed in parenthesis

FDEP Response: The words have been enclosed in parenthesis to correct the error.

e. Line 15 mentions Stauffer Chemical. The words Superfund site should be enclosed in parenthesis.

FDEP Response: The words have been enclosed in parenthesis to correct error.

f. On line 16, the word "consultant firm" should be replaced with "consulting firm"

FDEP Response: The word has been replaced with "consulting firm"..

C. **Process Description (p. II-6)**

The process description needs to be restructured.

FDEP Response: This section has been restructured to reflect EPA comments.

D. **Waste Management Practices (p. II-7)**

This section needs to be restructured.

FDEP Response: This section has been restructured to reflect EPA comments.

E. **Facility Waste Generation (p. II-8)**

1. Paragraph 1 states that according to UW&T's 1991 Hazardous Waste Biennial Report, they generated 525,690 pounds of waste at the facility in 1991. What type of waste is this? Is this wastewater? Explain.

FDEP Response: This waste consists of halogenated and non-halogenated solvents, chemicals, sludges, and debris and the said paragraph has been revised to clarify the comment.

2. The information included in the remaining paragraphs belongs in the SWMU data sheets and should be deleted from this section.

FDEP Response: The remaining paragraphs have been deleted as per comment.

F. Regulatory Applicability and History (p. II-10)

1. Paragraph 1 states that FDEP Tampa issued UW&T a full RCRA permit. FDEP (formerly FDER) could not have issued UW&T full RCRA permit because they are not authorized to issue the HSWA portion of the RCRA permit. A full RCRA permit includes the base portion which is issued by EPA.

FDEP Response: The paragraph has been revised to reflect EPA's comment.

2. EPA recommends that lines 8-10 be deleted, as the information presented here is no longer correct.

FDEP Response: The lines have been deleted to reflect EPA's comment.

3. The CEI's that were mentioned on page II-11, paragraph 1, who were they conducted by?

FDEP Response: The paragraph has been revised to clarify the detailed information.

4. Is this facility really subject to Subpart AA/BB requirements or was this added due to previous comments submitted?

FDEP Response: This paragraph was added per previous comments submitted by EPA dated June 28, 1993.

G. Release History (p. II-11)

1. In paragraph 2, what constituents were found in the groundwater? How many monitoring wells exist at this facility? When were the wells installed and what was the rationale for their placement?

FDEP Response: UW&T installed three (3) monitoring wells on October 20, 1989 prior to operation to verify non-contamination of the site and to monitor for future reference due to the activities surrounding the site location. Subsequent sampling and analysis of wells indicate groundwater contamination with total phenols, 2,4-D, ethylbenzene, toluene, lindane-gamma BHC, other organics, arsenic and other inorganics. The said paragraph has been revised to reflect EPA's comments.

2. On line 8, the word "ground-water" should be inserted between the words "some" and "contamination."

FDEP Response: This line has been revised to insert the word groundwater to correct the error.

3. Paragraph 3, line 8 - The words "stormwater" should precede the word "run-off."

FDEP Response: The line has been revised to correct the error.

4. Paragraph 3, page II-14 - A word appears to be missing from line 11. Should it say, "... and groundwater contamination."

FDEP Response: This paragraph has been revised on page II-11 to add the missing word.

5. Figure 3 - Monitoring Well Location Map
This figure is illegible. Please replace this with a legible copy.

FDEP Response: The most legible copy of this figure has been provided.

H. Environmental and Demographic Setting

1. Topography and Drainage (p. II-13) Identify UW&T on Figure 4.

FDEP Response: UW&T has been identified on Figure 4.

2. Geology and Ground Water (p. II-15)

On line 5, the word "silt" is misspelled. Delete the word "snaky."

FDEP Response: This line has been revised to correct the error.

III. Solid Waste Management Units (p. III-18)

In paragraph 2, insert the word "were" proceeding the word "identified."

FDEP Response: This paragraph has been revised to correct the error.

IV. Summary and Recommendations

FDEP Response: All summary tables are included in this revised RFA report.

V. Suggested Sampling Strategy (p. V-21)

Delete the Suggested Sampling Strategy tables on pages V-21 and V-22.

FDEP Response: This section has been deleted from from table of contents as well as pages V-21 and V-22.

APPENDIX A, SWMU DATA SHEETS

FDEP Response: All SWMU data sheets has been revised to reflect EPA's comments. Please see SWMU Data Sheets from 1 to 6.

RCRA FACILITY ASSESSMENT REPORT

for

UNIVERSAL WASTE & TRANSIT, INC.
2002 N. Orient Road
Tampa, Florida

FLD 981 932 494

Prepared by

Florida Department of Environmental Protection
Division of Waste Management
Bureau of Solid and Hazardous Waste

Site Visit: Wanda Parker
Harry Desai

March 1995 (Draft - Revision 3)

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APPENDICES

I. EXECUTIVE SUMMARY

This RCRA Facility Assessment (RFA) is based on a Preliminary Review (PR) of United States Environmental Protection Agency (EPA) Region IV and Florida Department of Environmental Protection (FDEP) files and a Visual Site Inspection (VSI) of the Universal Waste & Transit, Inc. (UW&T) facility in Tampa, Florida (EPA I.D. No. FLD 981 932 494). The PR was performed during the week of February 15-19, 1993 and the VSI was conducted on February 25, 1993. The purpose of the RFA is to identify Solid Waste Management Units (SWMUs) and other potential sources of environmental contamination not necessarily involving wastes (other Areas of Concern - AOCs), and to evaluate their potential for release of hazardous wastes or hazardous constituents to air, surface water, soil, and ground water.

UW&T is a RCRA permitted drum storage and transporter facility which accepts hazardous and non-hazardous wastes from other off-site generators (including household), and treatment/disposal facilities. The UW&T facility began operation in 1990 and occupies approximately 1.4 acres. UW&T presently employs 18 people (including clerical, technical, and administrative staff). Hazardous wastes stored and transported at the facility include characteristic and listed wastes.

EPA conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at this facility on August 18, 1988. At that time the construction of the facility was not completed and it was determined that there was no evidence of a prior or continuing release of hazardous wastes or hazardous constituents at the site. Therefore, at that time, Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 did not apply.

The PR and VSI resulted in the identification of six (6) SWMUs. The findings and suggested further actions for this facility are summarized in Table 1. No further action has been suggested for four (4)of the SWMUs. Those units designated for no further action are as follows: Drum Storage Area and Five (5) Sumps (SWMU #1), Loading/Unloading Area (SWMU #2), Filter Press (SWMU #4), and Municipal Waste Dumpster (SWMU #5). Confirmatory soil sampling has been suggested for the unlined retention pond (surface impoundment - SWMU #3). Confirmatory sampling of influent and effluent of the pre-treatment system (SWMU #6) has also been suggested.

During the February 25, 1993 VSI, regulatory staff and facility staff discussed sampling and analysis results on effluents prior to release into the retention pond. The facility

stated that the stormwater effluent had undergone analysis once, and the current carbon and sand filters from the storm water pre-treatment system had been utilized since the facility began operations in June 1990.

Three monitoring wells were installed on October 20, 1989 to establish initial compliance and future concurrence with state and federal regulations. Subsequent monitoring confirmed ground-water contamination which is believed to be attributed to either or both of the Superfund sites (Stauffer Chemical and Helena Chemical) located adjacent to the facility (see Appendix I & J). The two Superfund sites are currently under assessment in the remedial investigation phase (see Section II.G).

II. INTRODUCTION

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) authorized EPA to require corrective action for releases of hazardous wastes or hazardous constituent from SWMUs and AOCs at all operating, closed, or closing RCRA facilities. The intent of the authority was to address previously unregulated releases to air, surface water, soil and ground water. The first phase of the corrective action program, as established by EPA, is a RCRA Facility Assessment (RFA). The RFA includes a Preliminary Review (PR), during which information concerning the facility is reviewed and a preliminary list of SWMUs and AOCs is developed. The PR is followed by a Visual Site Inspection (VSI), which consists of a site visit where SWMUs and AOCs are assessed to determine the potential for release of hazardous wastes or hazardous constituents to the environment. If warranted, confirmatory sampling may be performed to further evaluate hazardous waste or hazardous constituents releases.

This report summarizes the results of the PR and VSI portions of the RFA for the Universal Waste & Transit, Inc. (UW&T), Tampa, Florida, EPA I.D. No. FLD 981 932 494. The PR was conducted on February 15-19, 1993 and the VSI was conducted on February 25, 1993. A total of six (6) SWMUs were identified as a result of the PR and VSI.

The remainder of the section describes the file search and VSI, facility description, processes, waste management practices, waste generation, regulatory history, release history, and environmental setting. Descriptions of the SWMUs for the facility are presented in Section III along with conclusions regarding potential for release and suggested further actions. Section IV contains tables which categorize and assess SWMUs according to the suggested further action.

A. FILE SEARCH AND VISUAL SITE INSPECTION (VSI)

The facility file search was done the week of February 15-19, 1993 at the Tallahassee FDEP office. The file search consisted of the review of Universal Waste & Transit's (UW&T) November 15, 1990 and May 21, 1991 RCRA Compliance Inspection Reports, Permitting files, Superfund files, the Permit Application and the Operating Permit . The file search enabled staff to compile background data on existing and potential SWMUs/AOCs and the regulatory history of the facility.

The VSI was conducted on February 25, 1993 by both FDEP and EPA staff. The inspection was led by Wanda Parker (FDEP) and Harry Desai (EPA). The other attendees were Bheem Kothur (FDEP), Roger Evans (FDEP), and John Taylor, General Manager for UW&T.

Additional information was provided by the facility after the VSI. This information is included in Appendix G -Soil Boring Sampling and Analysis Data; Appendix H - Storm Water Pre-Treatment Specifications; Appendix I - Initial Ground Water Monitoring Data; Appendix J - Subsequent Ground Water Monitoring Data; Appendix K - Effluent Sampling and Analysis Data; and Appendix M - Southwest Florida Water Management District (SWFWMD) Storm Water Discharge Permit.

B. FACILITY DESCRIPTION

Universal Waste and Transit (UW&T) is a permitted Hazardous Waste Treatment and Container Storage Facility which accepts hazardous and non-hazardous wastes (including household wastes) from generators and other off-site treatment/disposal facilities. The facility has a maximum storage capacity of 33,600 gallons.

UW&T is located at 2002 N. Orient Road in Tampa, Hillsborough County, Florida within the northwest quadrant of the intersection of Orient Road and 9th Avenue in Tampa, Florida (Figure 1). The facility is located on 1.4 acres of previously undeveloped land, approximately five miles east of downtown Tampa in a heavy industrial zone. UW&T is bounded on the west by National Fisheries, on the northwest by Helena Chemical (Superfund site), on the north by a metal recycling facility, on the east (across Orient Road) by Stauffer Chemical (Superfund site), and on the south (across 9th Avenue) by a consulting firm .

The facility began operations in June of 1990 and currently has a RCRA Storage and Treatment Permit (see Appendix P), and a Southwest Florida Water Management District Storm Water Discharge Permit (see Appendix M). The facility occupies a 5,866 square foot concrete building (approximately 120 ft X 50 ft), which contains the drum storage area. The drum storage area is composed of three separate bays (see Figure 2). Bays 1 & 3 are non-flammable storage areas (each containing 2 sumps), while Bay 2 is a flammable, reactive, and aerosol storage area (containing a single sump). Each sump has a storage capacity of approximately 1,000 gallons (see Figure 2). A concrete floor is continuos under all three bays in this area. The five (5) sumps located in the drum storage area are concrete holding units (with no outflow) to be used in the event of a spill, and would have to be removed with a portable pump. The facility also

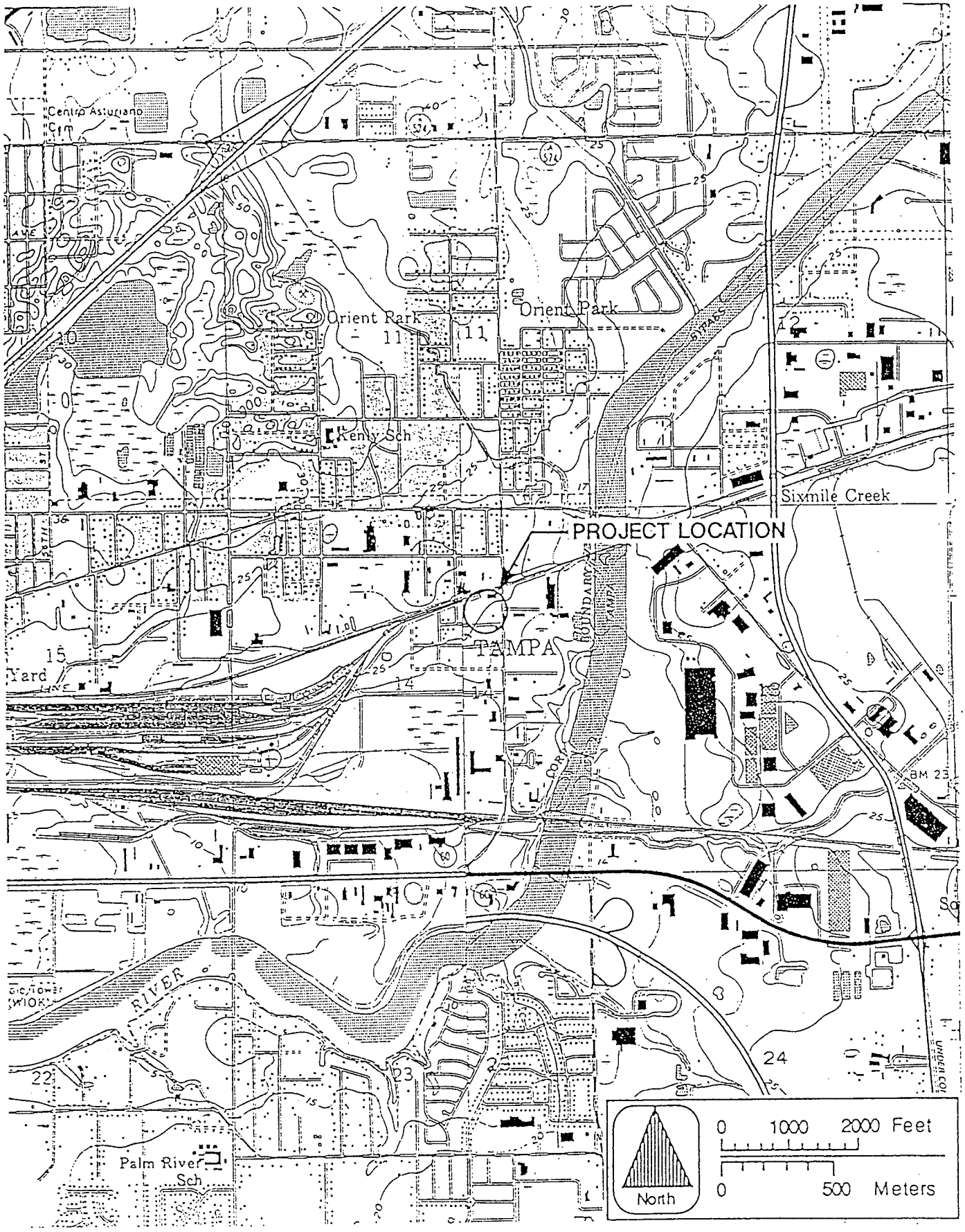


FIGURE 1
UW&T FACILITY LOCATION MAP

contains a Loading/Unloading area, stormwater retention pond, and office/laboratory trailer. The western portion of the property is currently undeveloped.

The Loading/Unloading Area is approximately 120 feet long and 80 feet wide, and is directly connected to the west side of the drum storage area. The elevation of this area is approximately three feet lower than the drum storage area to allow for truck loading and unloading. At the southeastern corner of this area, there are two ramps, one ramp levels to the drum storage area floor level, and the other elevates approximately two feet, to allow for small truck loading\unloading. The eastern half of this area (approximately 120 feet X 40 feet) is paved with concrete, and is slopes toward a concrete drain that drains in a north-south direction near the middle of the concrete floor. The remainder of this area is paved with asphalt and is also sloped towards the ditch drain. West of this area is an asphalt employee parking lot and the office/laboratory trailer.

The stormwater effluent from the ditch drain in the Loading/Unloading Area flows into a concrete holding tank, and is then pumped through a sand filter and an activated carbon filter before being discharged to the stormwater system. Effluent from this pre-treatment system is combined with other stormwater runoff before being discharged to the retention pond located east of the drum storage area near the eastern boundary of the facility. There is an overflow storm drain in place near the southeastern corner of the pond.

A Filter Press is located in the drum storage area, near the southwestern corner of bay #3. The Filter Press is currently not in operation, and was operated only once.

A Municipal Waste Dumpster is located on the asphalt paved area west of the drum storage area.

C. PROCESS DESCRIPTION

UW&T began accepting hazardous and non-hazardous wastes (including household waste) in 1990. These wastes are transported into and out of the facility via tractor trailers, flat-beds, and small trucks. The facility primarily utilizes 55 gallon drums for storage, although "tote tanks", "overpacks", "jumbo sacks", roll-off containers, and other containers are used occasionally.

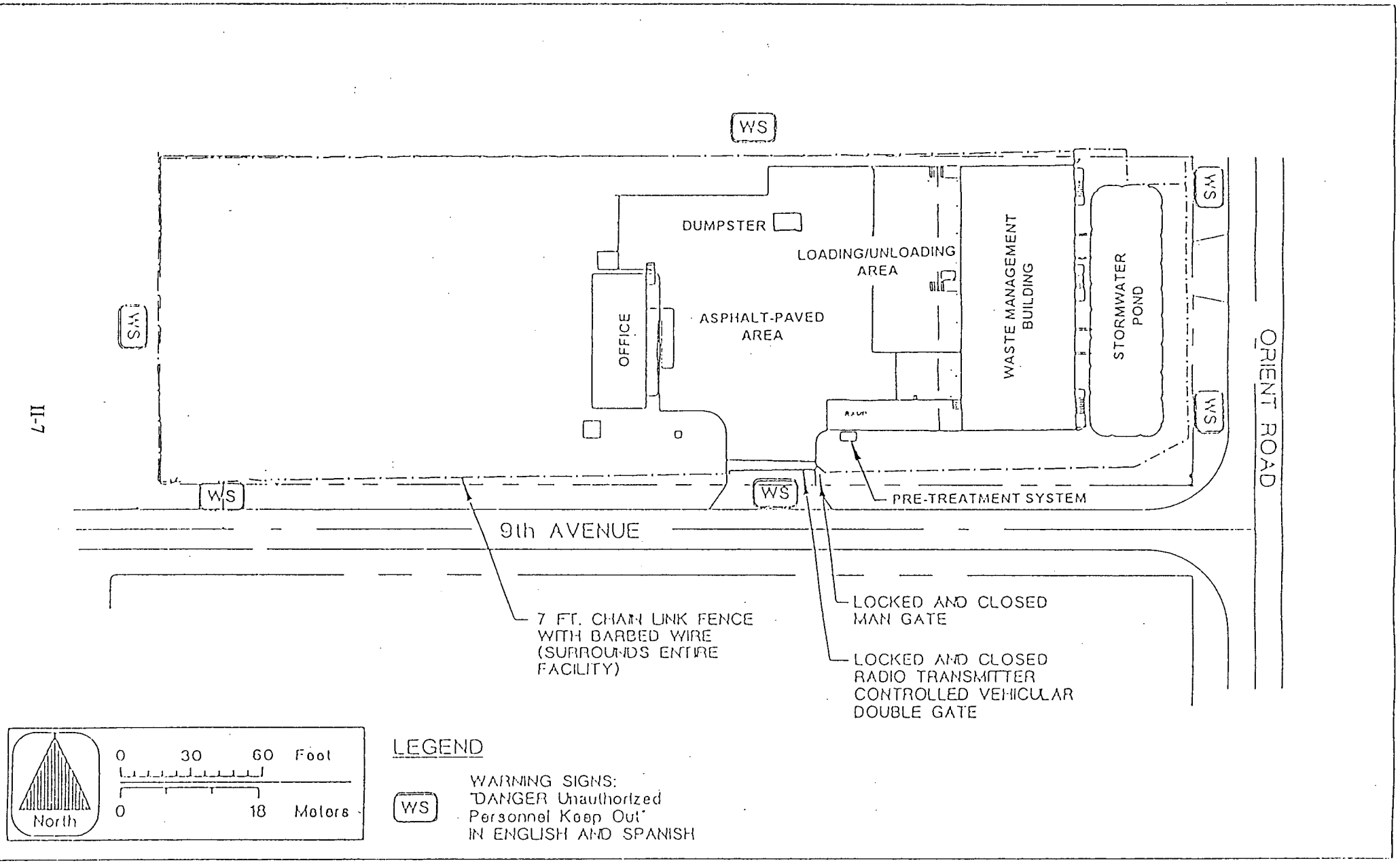


FIGURE 2
UW&T FACILITY SITE MAP

D. WASTE MANAGEMENT PRACTICES

The following hazardous wastes are approved for acceptance in the UW&T facility's hazardous waste permit:

D001-D043	K071, K073, K016	K060, K087
F001-F012	K031-K043	"P" Listed Wastes
F020-F028	K097-K099	"U" Listed Wastes

K001-K011	K048-K052
K013-K030	K061-K062
K083, K085	K069, K100
K093-K096	K084, K101, K102
K103-K105	K086

A representative sample of each waste shipment received is analyzed in the on-site laboratory located in the office trailer. A fingerprint analysis is conducted consisting of physical characteristics such as pH, flash point, and percent solids. All waste laboratory samples are held for approximately three months pending potential need for re-evaluation. Samples are then managed as hazardous wastes and bulked into waste drums and manifested to an off-site disposal facility. Rags and residues are emptied into satellite accumulation hazardous waste containers, bulked to drums and manifested to an off-site disposal facility.

All hazardous wastes are stored and managed in the drum storage area. Non-regulated wastes (usually soils with trace petroleum) are occasionally stored in the truck-loading containment area (SWMU # 2).

The vehicles back up directly to the storage area so that drums can be loaded and off-loaded directly to and from the vehicle and warehouse. All waste containers are closed except when transferring of wastes is occurring. All containers and containment areas are inspected daily (see Appendix N).

Most wastes are manifested off-site for disposal in less than one (1) month.

Waste oil mixed with hazardous waste is delivered by transporters and is manifested out to permitted TSDF's for fuel blending (see Appendix E).

Domestic refuse is emptied in a dumpster. The refuse is collected from the dumpster and disposed of by Tampa/ Hillsborough County Municipal Solid Waste.

Stormwater from the truck loading/unloading area drains to a concrete trench drain which flows from north to south along the loading area. Then the trench drain flows to a 640 gallon concrete holding tank, which is equipped with a sump pump with a capacity of approximately 30 gallons per minute. The 5.0 amp, 380 watt, 1.6 horsepower sump pump automatically pumps the storm water from the holding tank through a sand filter and a carbon filter to the stormwater retention pond.

The Retention Pond has dimensions of 126 ft by 35 ft with 3:1 side slopes. The average volume is 0.1355 acre-feet. The pond is used to retain pre-treated storm water effluent.

The loading/unloading dock is a concrete surface used to load and unload permitted hazardous and non-hazardous wastes. The loading area is sloped towards the containment trench-drain.

E. FACILITY WASTE GENERATION

UW&T's primary operations consist of storage of regulated wastes and transportation of wastes to permitted facilities. Therefore, UW&T generates minimal quantities of waste. According to their 1991 Hazardous Waste Biennial Report, UW&T received 525,690 pounds of hazardous waste at the facility in 1991. The hazardous waste consists of halogenated and non-halogenated solvents, chemicals, sludges, and debris.

F. REGULATORY APPLICABILITY AND HISTORY

An RFA was conducted on August 18, 1988, prior to construction of the facility, and a HSWA permit was not warranted at that time (see Appendix F). A site inspection was conducted on January 30, 1990 to verify completion of construction activities. The FDEP Tampa district office issued UW&T an operating permit to operate a Hazardous Waste Storage and Treatment Facility on July 3, 1990 (see Appendix P). There have been three (3) subsequent Comprehensive Evaluation Inspections (CEI) at the facility. The CEI conducted on March 26, 1991 was led by Victor San Agustin (FDEP) accompanied by Sharon Roehm (UW&T) and Will Horn (UW&T). Three (3) violations were sited with a penalty paid in the amount of $1600.00. As of this report date, the facility has no pending compliance and/or enforcement actions with FDEP.

G. RELEASE HISTORY

The facility has had no reported and/or recorded release(s) to the environment. UW&T installed three (3) monitoring wells on October 20, 1989 prior to operation to verify non-

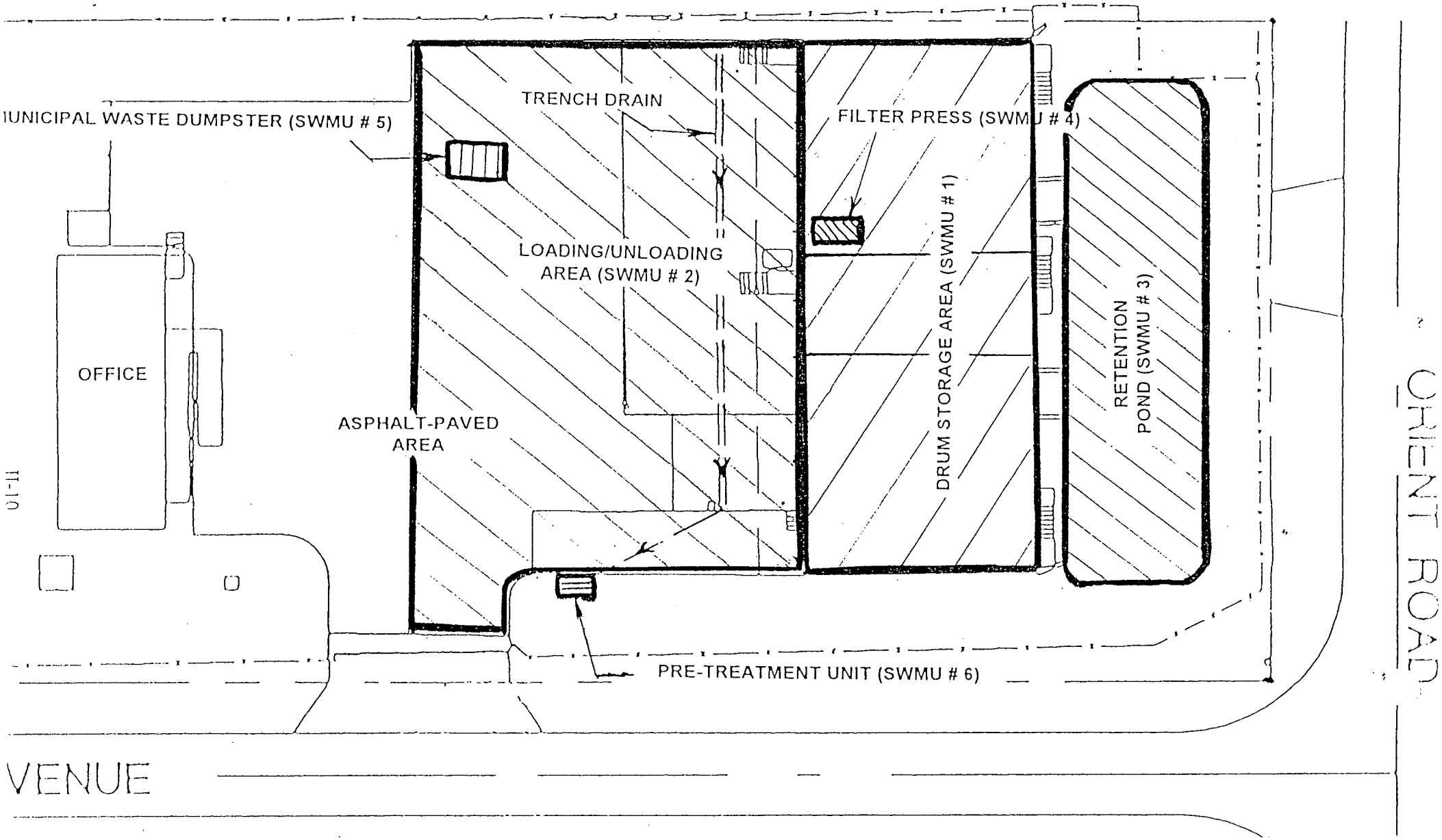
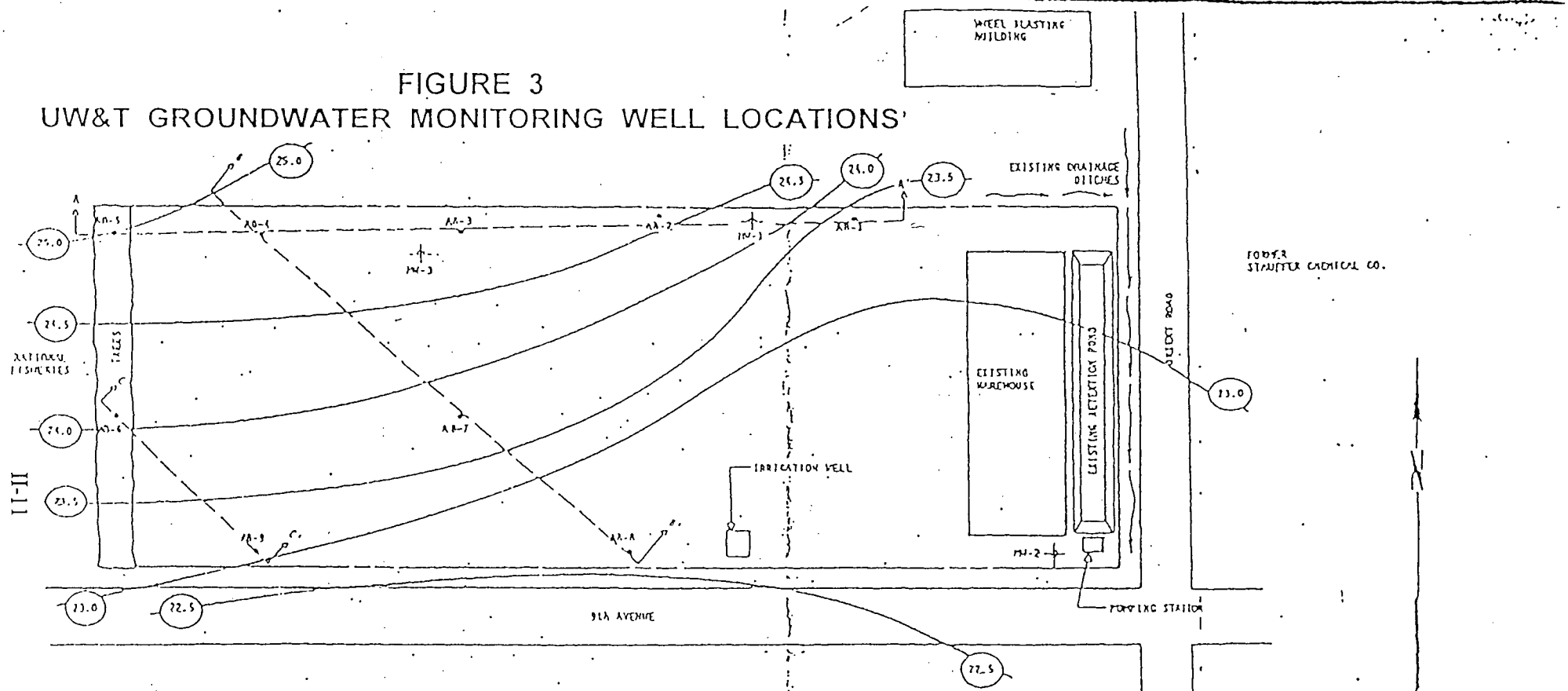


FIGURE 2.1
UW&T SWMU LOCATION MAP

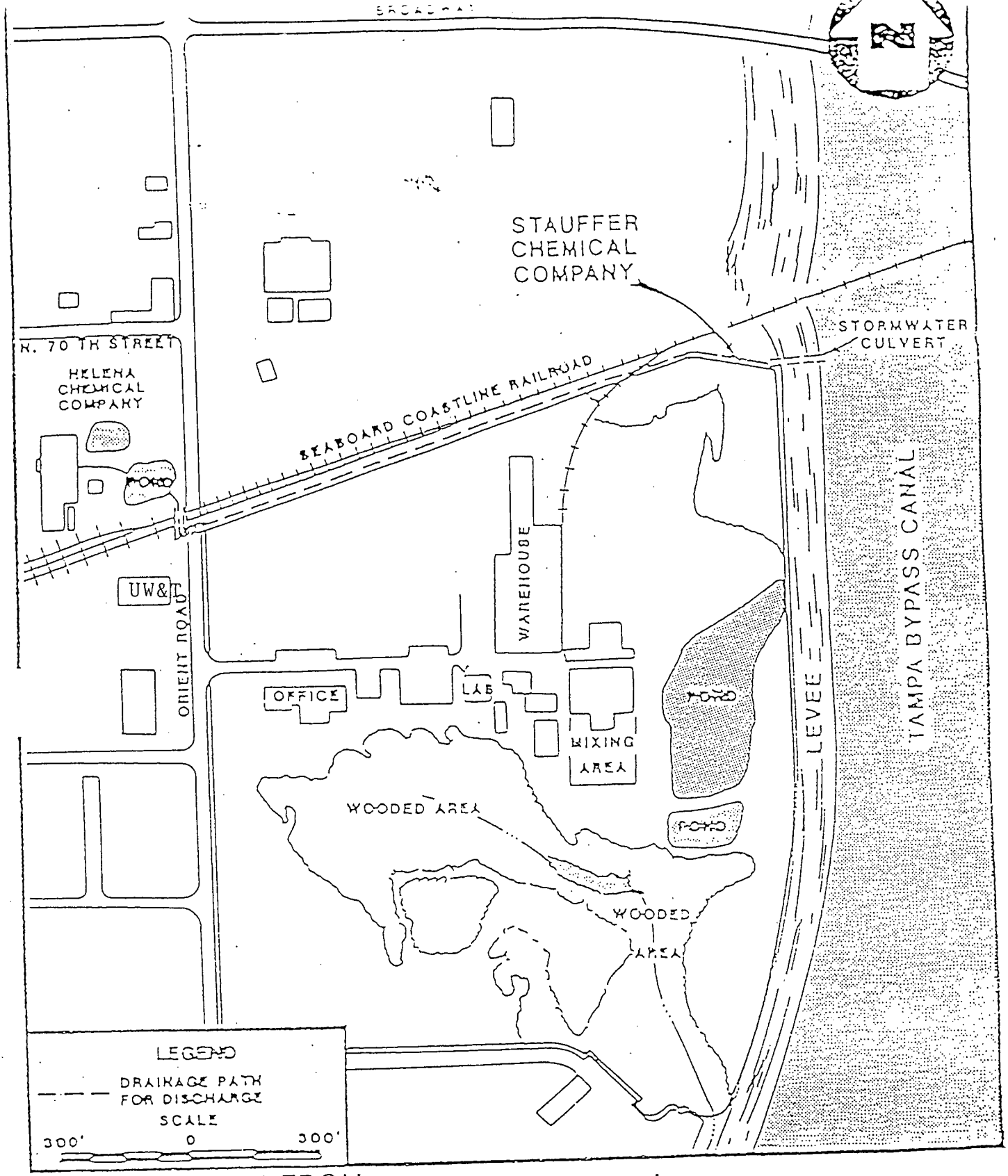
FIGURE 3
UW&T GROUNDWATER MONITORING WELL LOCATIONS



PROJECT NO: 3106-83-001	
SCALE: 1"=40'	
DRN BY: SUI	DATE: 12/27/83

Westinghouse Environmental and Geotechnical Services, Inc.
TAMPA, FLORIDA

FIGURE 3
GROUNDWATER TABLE CONTOUR MAP
ONEYEARSAL WASTE & TRANSIT INC.
TAMPA, FLORIDA



DRAINAGE PATH FROM
HELENA CHEMICAL COMPANY
STAUFFER CHEMICAL COMPANY
TAMPA, FLORIDA

ENSR CORPORATION

FIGURE 4
UW&T DRAINAGE PATH LOCATION MAP

contamination of the site and to monitor for future reference due to the activities surrounding the site location (see Figure 3 and Appendix I). The facility is located across the street from Stauffer Chemical (Superfund site) and adjacent to Helena Chemical (Superfund site). Subsequent sampling and analysis of the wells have indicated that there is some groundwater contamination present. The constituents include: arsenic, total phenols, some inorganics, 2,4-D, toluene, ethylbenzene etc. in groundwater samples. The constituent data from subsequent groundwater monitoring are provided in Appendix J. The ground water flow of the area is southeast from the Helena Superfund site to UW&T (see Figure 4).

1. HELENA CHEMICAL SITE HISTORY

The Helena Chemical Company is located at 2405 North 71st Street. It is bound on the north by 14th Avenue; on the east by Orient Park Road; on the west by 71st Street; and on the south by an active rail line (see Appendix O). The facility is located on a site covering approximately 8 acres, including an office, laboratory, bathhouse, processing and storage building, warehouse, numerous holding tanks, and stormwater run-off retention pond. The retention pond has an area of approximately 10,400 square feet. The terrain at the facility is relatively flat, with a gradual slope toward the south and southeast. Helena manufactured sulfur dust and other products for use in citrus orchards. In the mid-1970's, pesticide mixing operations were conducted in the current warehouse building. The pesticides manufactured and repackaged at the facility include organochloride and organophosphate insecticides (toxaphene, parathion, methyl parathion, mevinphos, naled, malathion, EPN, dimethoate, dioxathion, dimpylate, endrin, and chlordane), acaricides (chlorobenzilate), nematicides (1,2-dibromo-3-chloropropane), insecticidal petroleum oil, and herbicides (dimethylamine salt of 2,4-D and dinoseb).

In 1984 FDEP inspected Helena and required quarterly monitoring of the surficial aquifer. From 1988 to 1990, EPA investigated the site and found pesticide contamination in the on-site soil, sediments, and surficial aquifer. Based on the potential for human exposure via ingestion of contaminated ground water, EPA proposed the site to the Superfund National Priorities List (NPL) in February 1992 and finalized the listing in October 1992. EPA is currently preparing a remedial investigation and feasibility study. Neither Helena or EPA have undertaken any site cleanup.

2. STAUFFER CHEMICAL SITE HISTORY

The Stauffer Site is located at 2009 Orient Road on a 40 acre parcel of land adjacent to the Tampa Bypass Canal (see Appendix O). The facility formulated products at the site which included insecticides and herbicides. The insecticides included chlorinated hydrocarbons and organophosphate pesticides. The amount of raw material used monthly in pesticide production included 1,000,000 gallons of No. 1 fuel oil, 20,000 gallons of xylene, 100 tons of clay and 100 tons of dust (diatomaceous earth). Approximately three tons of waste material was generated annually, excluding 15 to 40 tons of incinerator ash. The incinerator was a 180 pound per hour batch-burn incinerator equipped with a modulating gas-fired afterburner for Type "O" waste. The facility disposed of much of its waste in nine disposal areas between 1953 and 1973. Approximately 70 to 80 drums of methyltrithion and over 8,000 gallons of toxaphene were buried in some of the unlined pits. Disposal in the areas was completed prior to 1980.

In 1982 the FDEP inspected the Stauffer Chemical Company to determine compliance with state hazardous waste regulations. FDEP recommended an EPA inspection for the site because of past waste disposal practices and proximity to the Tampa Bypass Canal. EPA inspected the site and found evidence of buried drums and possible groundwater contamination. In 1984, FDEP required Stauffer to sample the water in the on-site ditch and the nearby Tampa Bypass Canal and found low levels of pesticides in both areas. EPA conducted site investigations in 1987 and 1988 and found on-site air, soil, surface water, sediments, and groundwater contamination. EPA proposed this site to the Superfund National Priorities List on February 7, 1992 and is planning a remedial investigation.

H. ENVIRONMENTAL AND DEMOGRAPHIC SETTING

1. POPULATION

The facility is located in Tampa, Florida. The area is zoned Heavy Industrial. Tampa is in Hillsborough County which is located in Southwest Florida. The 1990 census counts for Hillsborough County and Tampa are 834,054 and 280,015 respectively. Tampa is the largest populated city (incorporated) in the county. The projected population for Hillsborough County in 1995 and 2000 is 917,670 and 987,241 respectively.

2. CLIMATE

Tampa's climate is characterized by summer thunder showers occurring between a relatively dry spring and fall. The average annual rainfall is approximately 49 inches. Approximately 30 inches or 60 percent of the annual average falls during June to September. The heavy rainfall is associated with tropical depressions and hurricanes which occur usually between June and October. The average annual temperature is about 72 degrees and monthly average temperatures range from approximately 61 degrees in January to 82 degrees in August.

3. TOPOGRAPHY AND DRAINAGE

The area is in the sandy and poorly drained Coastal Lowlands of Florida. A plain slopes gently upward from Hillsborough Bay along the route of the area's canal system. The plain is a former bay bottom which was occupied by part of an estuary larger than the present Hillsborough Bay. A scarp rims the flat, low-lying swampy plain and represents an advance of the sea to an altitude of about 25 to 35 feet. North and east of the scarp is an upland area which consists of low rolling hills and features associated with marine terraces, including ponds, depressions, and swamps.

4. GEOLOGY AND GROUND WATER

The area is underlain at depth by several hundred feet of solution-riddled and fractured limestone and dolomite formations, which range in age from Eocene to Miocene. The formations are overlain by as much as 60 feet of unconsolidated sand, silt and clay. In many places these unconsolidated deposits are separated from the underlying limestone and dolomite by thick beds of stiff, green clay which has an average thickness of approximately 10 feet and acts as a semi-permeable confining layer over the formations.

The geologic units form a hydrologic system composed of a shallow water-table aquifer, a confining bed, and the Floridan aquifer. The saturated parts of the unconsolidated materials form a shallow water-table aquifer which has an average thickness of about 20 feet. The majority of water in the aquifer is derived from local rainfall and water table is only a few feet below land surface. The water enters the Floridan aquifer in recharge areas and moves down-gradient to points of discharge. The majority of recharge to the aquifer in Hillsborough County is derived locally from leakage through confining beds and sinkholes.

5. FLOOD PLAIN

The site is located outside the 100-year flood plain. A Federal Emergency Management Agency (FEMA) map outlining the area of the site and verifying flood plain information is included (see Figure 5). The information is also certified on the site survey by a registered surveyor. The facility is also located outside of the hurricane storm surge zone.

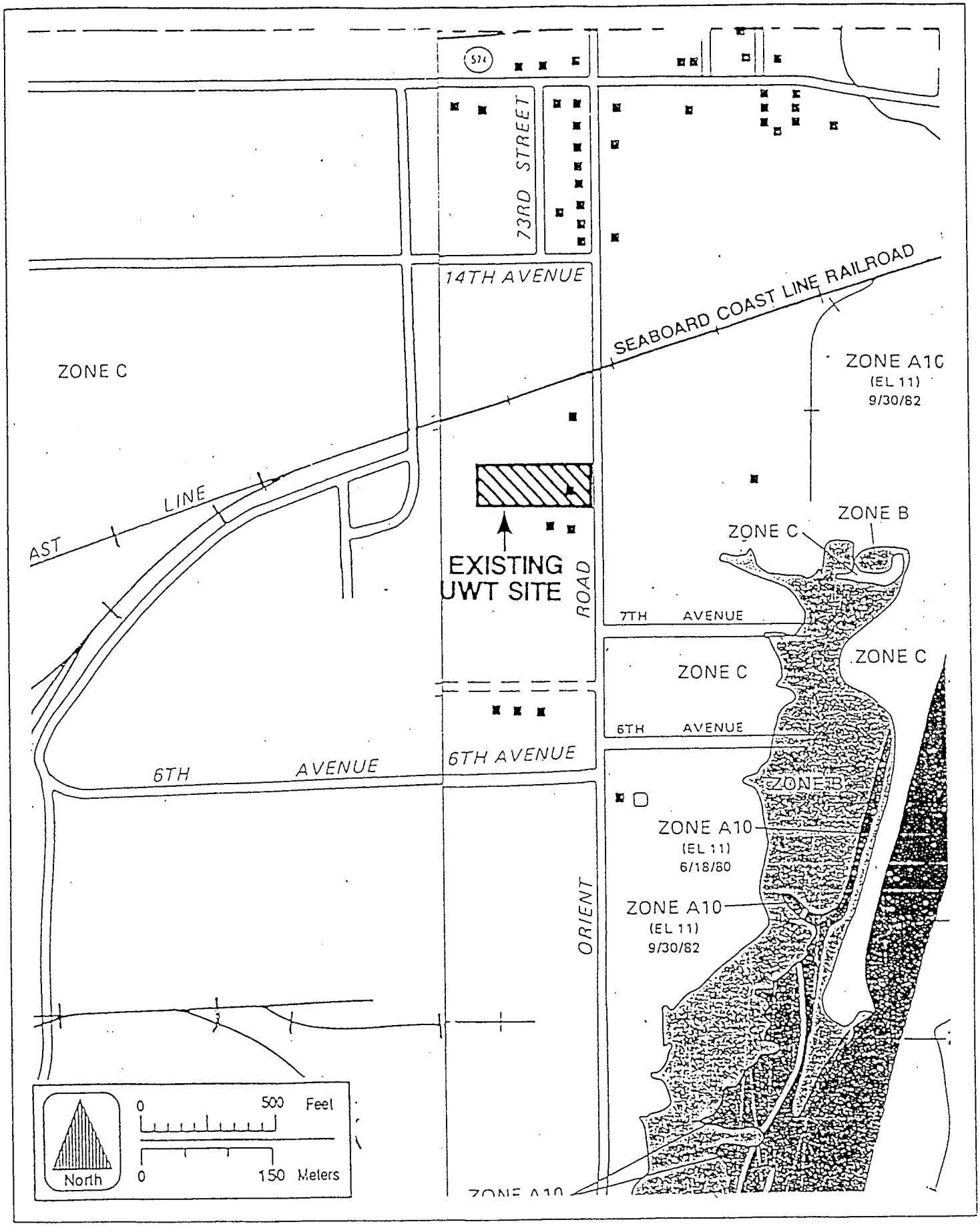


FIGURE 5
UW&T 100-YEAR FLOODPLAIN MAP

III. SOLID WASTE MANAGEMENT UNITS

The VSI identified six (6) Solid Waste Management Units (SWMU) at the facility. Table 1 summarizes all of the identified SWMUs, Appendix A provides a detailed description of each SWMU, and Appendix B provides photo of the facility and identified SWMUs that were taken during the VSI.

The following SWMUs were identified at the UW&T facility in Tampa, Florida:

1. Drum Storage Area
2. Loading/Unloading Area
3. Retention Pond
4. Filter Press
5. Municipal Waste Dumpster
6. Pre-Treatment Unit

IV. SUMMARY AND RECOMMENDATIONS

Upon completion of the file search and VSI, it is recommended that confirmatory soil sampling be conducted at the stormwater pond (SWMU #3), and influent and effluent sampling be conducted at the Pre-Treatment Unit (SWMU #6). The sampling is warranted because the retention pond has not undergone analysis. In addition, it has not been demonstrated that the Pre-Treatment Unit's effluent is not contributing to the groundwater contamination. The remaining SWMUs warrant no further action considering their condition during the VSI, and there is no indication of releases to the environment.

The Initial Groundwater Sampling Data (Appendix I) indicated that the following constituents were above Method Detection Limits (MDL):

Contaminant	MCL*	(11/89) Highest Concentration	Well with highest Concentration.
a-BHC (608-Organochlorine Pesticides and PCBs)	No MCL	350 mg\l	MW-3
Naphthalene	No MCL	36 mg\l	MW-1
Arsenic	50 mg\l	70 mg\l	MW-3
Chromium	100 mg\l	110 mg\l	MW-3
Lead	0.15 mg\l	1.8 mg\l	MW-3
Benzene	1 mg\l	17 mg\l	MW-3
Chlorobenzene	No MCL	3.2 mg\l	Irrigation well
1,2-Dichlorobenzene	600 mg\l	43 mg\l	MW-3
1,4-Dichlorobenzene	75 mg\l	110 mg\l	MW-3

* MCL : Maximum Contamination Level.

In conclusion, concentrations of most groundwater contaminants seem to be higher in MW-3 and MW-1, which are upgradient wells. It seems that ground water contamination was most likely caused by off-site contamination at either of the Superfund sites. However, it is recommended that UW&T perform the above mentioned samplings to demonstrate that the facility is not contributing to the contamination of three ground water monitoring wells. Table 1 and Appendix A provide summarized and detailed recommendations for the SWMUs identified during the VSI.

TABLE 1

SWMU IDENTIFICATION SUMMARY

SWMU NO.	TYPE OF UNIT	YEARS OF OPERATION	WASTE MANAGED	POLLUTANT MIGRATION PATHWAYS	EVIDENCE OF RELEASE	EXPOSURE POTENTIAL	RECOMMENDATIONS			
							Confirmatory Sampling	RFI	NFA	FURTHER ASSESSME
1 *	Drum Storage Area	June 1990 - Present	Permitted Wastes (see Appendix A)	Air, Soil, Surface Water, Ground Water	None	L			X	
2 *	Loading/Unloading Area	June 1990 - Present	Permitted Wastes (see Appendix A)	Air, Soil, Surface Water, Ground Water	None	L			X	
3	Retention Pond	June 1990 - Present	Storm Water	Air, Soil, Surface Water, Ground Water	None	M	X			
4 *	Filter Press	June 1990 - Present	Non-hazardous wastes (One-time test)	Air, Soil, Surface Water, Ground Water	None	L			X	
5	Municipal Waste Dumpster	June 1990 - Present	Empty storage containers, paint cans, office wastes	Air, Soil, Surface Water, Ground Water	None	L			X	
6	Pre-treatment Unit	June 1990 - Present	Storm Water	Air, Soil, Surface Water, Ground Water	None	M	X			

* = RCRA Regulated Unit

TABLE 2

List of all SWMUs

SWMU/AOC NO.	SWMU/AOC NAME
*1	Drum Storage Area
*2	Loading/Unloading Area
3	Retention Pond
*4	Filter Press
5	Municipal Waste Dumpster
6	Pre-treatment Unit

* RCRA Regulated Unit

TABLE 3

List of SWMUs Requiring No Further Action

SWMU NO.	SWMU NAME
*1	Drum Storage Area
*2	Loading/Unloading Area
*4	Filter Press
5	Municipal Waste Dumpster

* RCRA Regulated Unit

TABLE 4

List of SWMUs that are RCRA Regulated Units

SWMU NO.	SWMU NAME
*1	Drum Storage Area
*2	Loading/Unloading Area
*4	Filter Press

TABLE 5

List of SWMUs Requiring Confirmatory Sampling

SWMU NO.	SWMU NAME
3	Retention Pond
6	Pre-treatment Unit

TABLE 6

List of SWMUs Requiring a RCRA Facility Investigation

At this time, there are no SWMUs which require a RCRA Facility Investigation (RFI). Pending Confirmatory Sampling results for SWMUs listed on Table 5, a RFI may be required for SWMUs in the future.

A. SWMU DATA SHEETS

SWMU DATA SHEET

SWMU NUMBER: 1 PHOTO NUMBER: 3,4,5,13,14,15,16 and 19

NAME: Drum Storage Area

TYPE OF UNIT: Drum Storage Area and Five (5) Sumps

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The concrete drum storage area is used to store primarily 55 gallon drums of permitted hazardous and non-hazardous wastes. The drum storage area is separated into three (3) bays and segregated by waste compatibility. Each bay area is sloped toward the nearest sump. The five (5) sumps are actually holding units to be used in the event of a spill and would have to be manually pumped. The collection sumps are seamless and made of pre-cast concrete coated with sealant. The maximum storage area and sump volumes capacities are 33,600 gallons and 5000 gallons respectively. The interior sumps are visually inspected daily. The sump openings were the only visible migration pathway. The storage area and sumps were visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: D001-D043, F001-F012, F020-F028, K001-K011, K013-K043, K048-K052, K060-K062, K069, K071, K073, K083-K087, K093-K106, "P" Listed Wastes from acute hazardous wastes, "U" Listed Wastes from toxic wastes, Non-hazardous wastes.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:

No Further Action	(x)
Confirmatory Sampling	( )
RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS: The drum storage area is a regulated unit for storage.

SWMU DATA SHEET

SWMU NUMBER: 2 PHOTO NUMBER: 1, 3-5, and 8

NAME: Loading/Unloading Area

TYPE OF UNIT: Loading/Unloading Area

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The dock is a concrete surface with dimensions of approximately 64' x 34' and located immediately in front of the SWMU #1 and SWMU #4 and is used to load and unload permitted hazardous and non-hazardous wastes (see Figure #2). The loading area is sloped towards the containment trench. The dock area was visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: D001-D043, F001-F012, F020-F028, K001-K011, K013-K-43, K048-K052, K060-K062, K069, K071, K073, K083-K087, K093-K106, "P" Listed Wastes from acute hazardous wastes, "U" Listed Wastes from toxic wastes, Non-hazardous wastes.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:		
	No Further Action	(x)
	Confirmatory Sampling	( )
	RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS:

SWMU DATA SHEET

SWMU NUMBER: 3 PHOTO NUMBER: 10 and 11

NAME: Retention Pond

TYPE OF UNIT: Surface Impoundment

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The earthen pond is located on the far east side of the facility and just behind the SWMU #1 and #4 (see Figure #2). It has dimensions of 126 ft by 35 ft with an average volume of 0.1355 acre-feet and a side slope of 3:1. All effluent is pre-treated via the carbon/sand filter system prior to release into the pond. There is an overflow storm drain in place at the southeast portion of the pond. The pond is used to retain pre-treated stormwater effluent. The pond was visibly in good condition. The facility has a Southwest Florida Water Management District (SWFWMD) Stormwater discharge permit (see Appendix M).

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: Storm water.

RELEASE PATHWAYS: Air (M) Surface Water (M) Soil (M)
Ground water (M) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None, although the pond has only been sampled once in the last year.

RECOMMENDATIONS:		
	No Further Action	( )
	Confirmatory Sampling	(x)
	RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS: Sampling of the pond is warranted in order to determine if there are and/or have been any releases to the environment. There has only been one sampling event which consisted of sampling/analyzing storm water prior to it entering the pre-treatment unit and draining into the pond.

SWMU DATA SHEET

SWMU NUMBER: 4 PHOTO NUMBER: 17 and 20

NAME: Filter Press

TYPE OF UNIT: Treatment Unit

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The filter press is located in Bay 1 within SWMU #1. The filter press is manufactured of structural steel and pneumatically operated. The physical treatment of solidification for semi-solid wastes requiring further filtration is to be performed on a batch basis. The solidification process will employ a filter press with approximate dimensions of 2.6 feet by 10.25 feet by 3.6 feet and a maximum filter press capacity of 8 cubic feet. There is no utilization of electrical components. After the first trial run, use of the filter press was not economically feasible. Therefore, the filter press is currently not in operation. The filter press was operated only once utilizing non-hazardous waste. The filter press was visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: Non-hazardous.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:

No Further Action	(x)
Confirmatory Sampling	( )
RFI Necessary	( )

REFERENCES: VSI, CEI Inspection Reports, Permit Application, Permitting files.

COMMENTS: The filter press was non-economical and was not used after the first trial. Therefore, the filter press is currently not in operation.

SWMU DATA SHEET

SWMU NUMBER: 5 PHOTO NUMBER: 1

NAME: Municipal Waste Dumpster

TYPE OF UNIT: Municipal Waste Dumpster

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The steel dumpster is located in the concrete loading/unloading area at the north end of the facility. The dumpster has an approximate capacity of 2.5 cubic yards and is used to store solid wastes until disposal pick-up. The dumpster was visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: Empty storage containers, paint cans, office wastes.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground water (L) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

RECOMMENDATIONS:		
	No Further Action	(x)
	Confirmatory Sampling	( )
	RFI Necessary	( )

REFERENCES: VSI.

COMMENTS:

SWMU DATA SHEET

SWMU NUMBER: 6 PHOTO NUMBER: 9

NAME: Pre-treatment Unit

TYPE OF UNIT: Pre-treatment Unit, including a carbon-sand filter and a sump pump

PERIOD OF OPERATION: June 1990 - present.

PHYSICAL DESCRIPTION AND CONDITION: The carbon and sand filter system is located on a concrete pad at the south end of the facility. The system is enclosed by a wooden fence and has two storm drains within the unit. Stormwater from the truck loading/unloading area drains to a concrete trench drain which flows from north to south along the loading area. Then the trench drain flows to a 640 gallon concrete holding tank, which is equipped with a sump pump with a capacity of approximately 30 gallons per minute. The 5.0 amp, 380 watt, 1.6 horsepower sump pump automatically pumps the storm water from the holding tank through a sand and carbon filter and then to the stormwater retention pond. The pump is set to keep the sump level below 300 gallons. The carbon filter, Model L-1 manufactured by Carbtrol, utilizes activated carbon to remove organic contaminants. It's specifications include dimensions of 24 inches by 36 inches (diameter/height), 200 pounds of carbon, and a flow rate of 5 gallons per minute (gpm) at 10 minute contact time. The sand filter unit is constructed of triple-wrapped fiberglass windings on a seamless water-tight polymeric inner shell with high-temperature, high-strength plastic internal components. It's specifications include dimensions of 24.5 inches by 37.5 inches, a flow rate of 62 gpm per square foot, and a 3.1 square foot filter area. The pre-treatment unit installation was completed on March 1990. The unit was visibly in good condition.

WASTES AND/HAZARDOUS CONSTITUENTS MANAGED: Storm water.

RELEASE PATHWAYS: Air (M) Surface Water (M) Soil (M)
Ground water (M) Subsurface Gas (U)

HISTORY AND/OR EVIDENCE OF RELEASE(S): None.

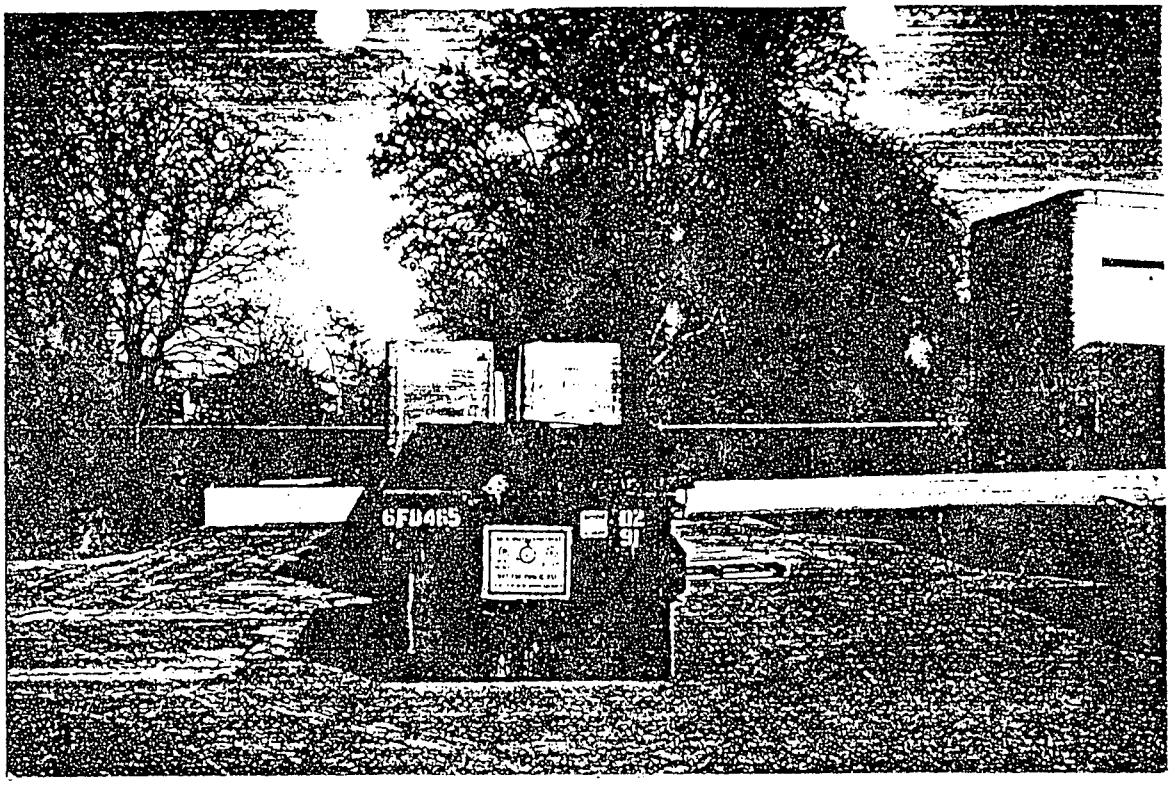
RECOMMENDATIONS:

No Further Action	( )
Confirmatory Sampling	(x)
RFI Necessary	( )

REFERENCES: VSI, Permitting files.

COMMENTS: Sampling of the pre-treatment unit is warranted in order to determine if there have been any releases to the environment. The carbon and sand filters have not been replaced since facility operations began. The potential for release to air, surface water, soil, and ground water is dependent on the integrity of the unit, constituents in the stormwater, and unit maintenance

B. VSI PHOTO LOG

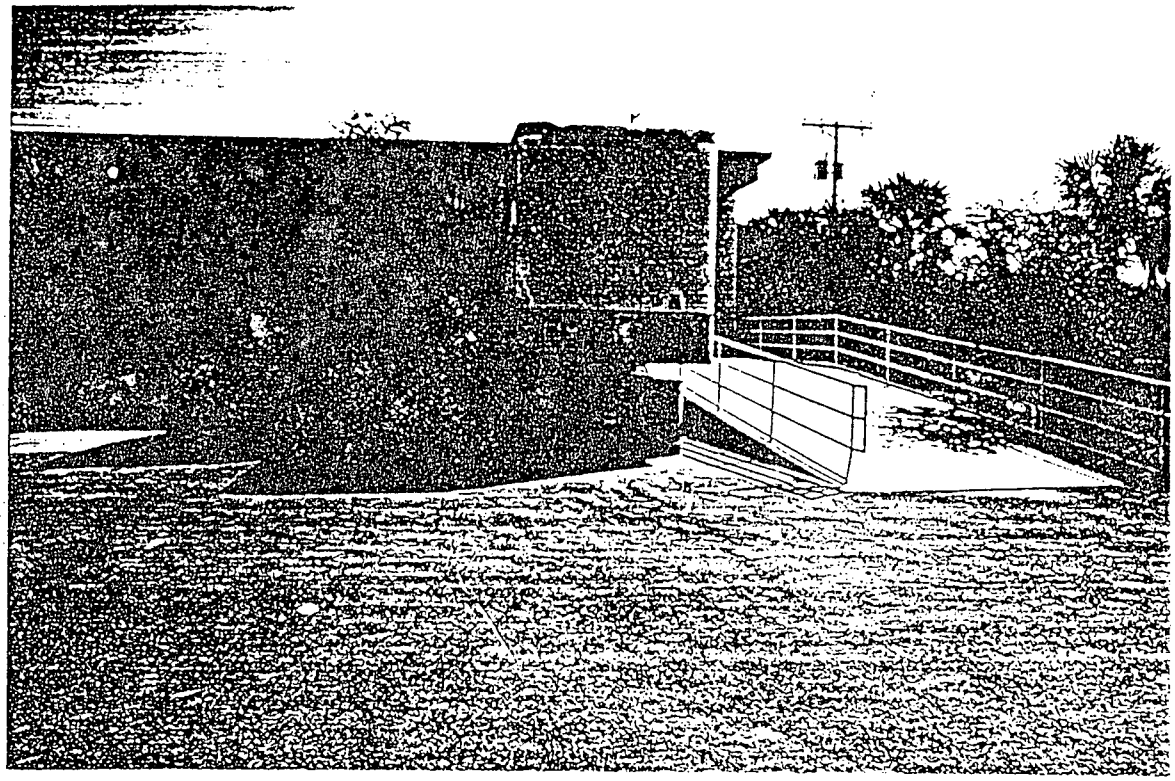


1. SWMU #5 and #2, located at north end of facility looking north.

Wanda Parker 2/25/93

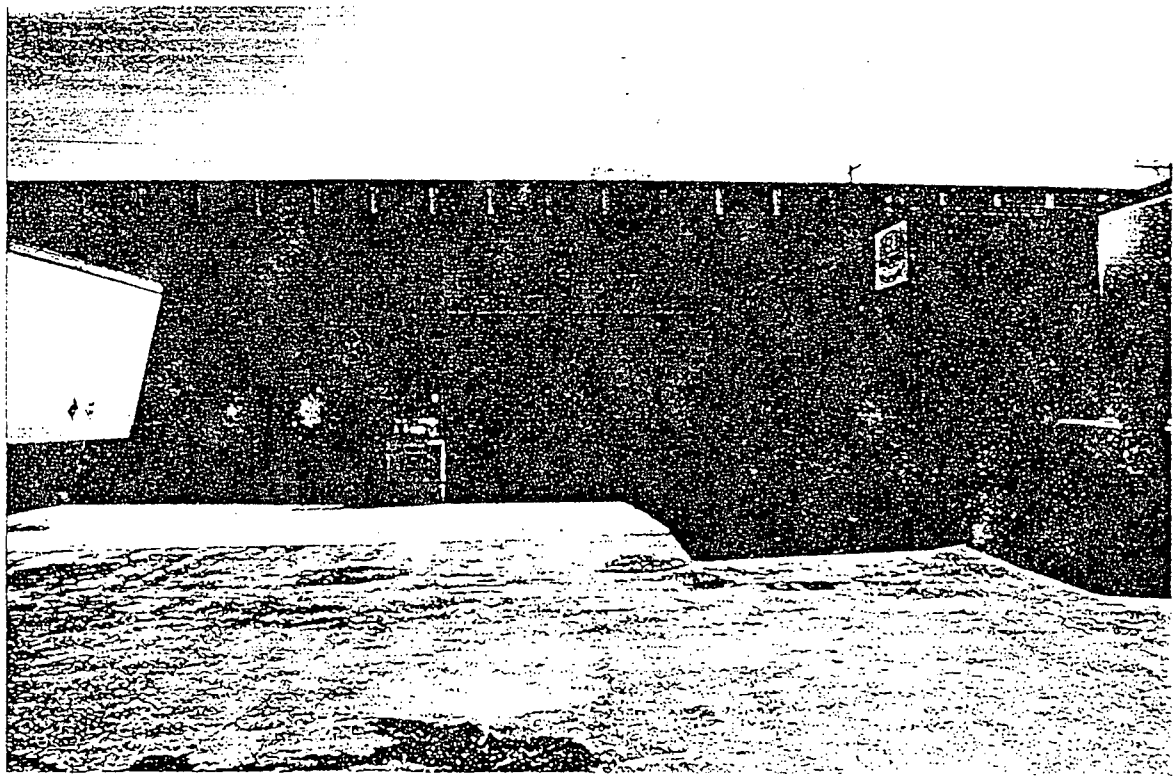
2. Lab facility w/satellite accumulation container inside of office trailer.

Wanda Parker 2/25/93



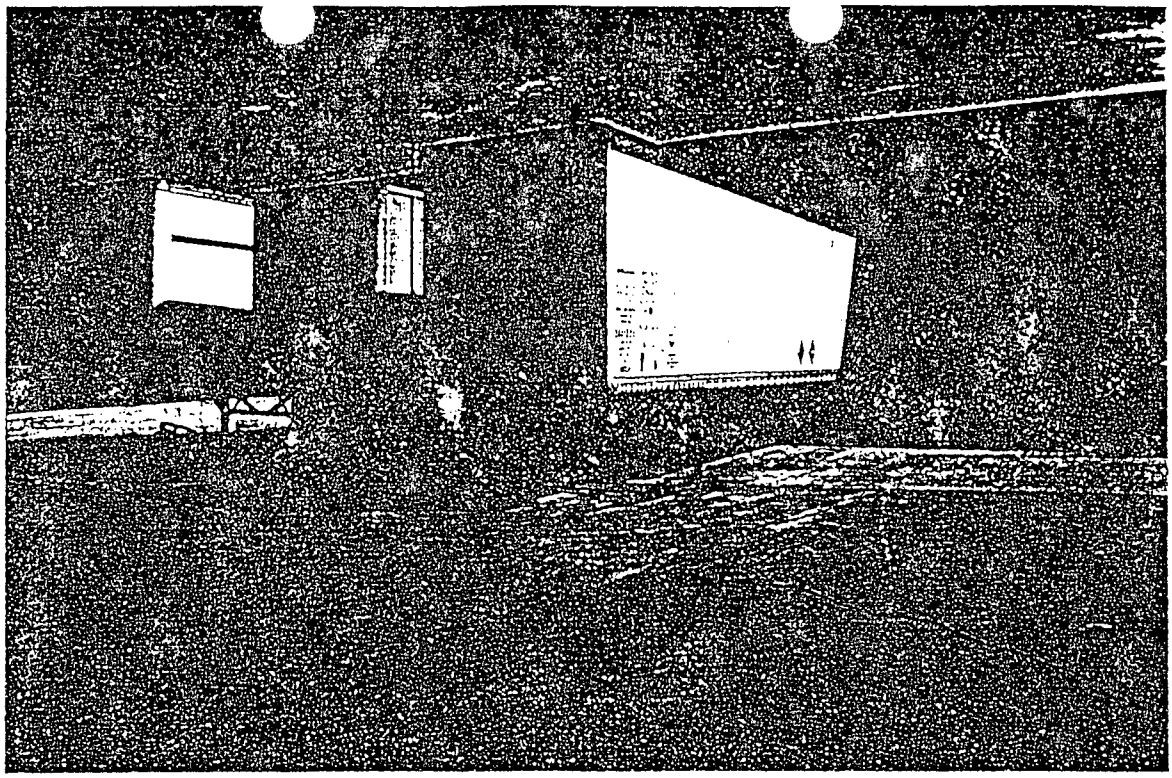
3. SWMU #1 and #2, Drum Storage Area w/empty drums and safety equipment trailers taken looking southeast.

Wanda Parker 2/25/93



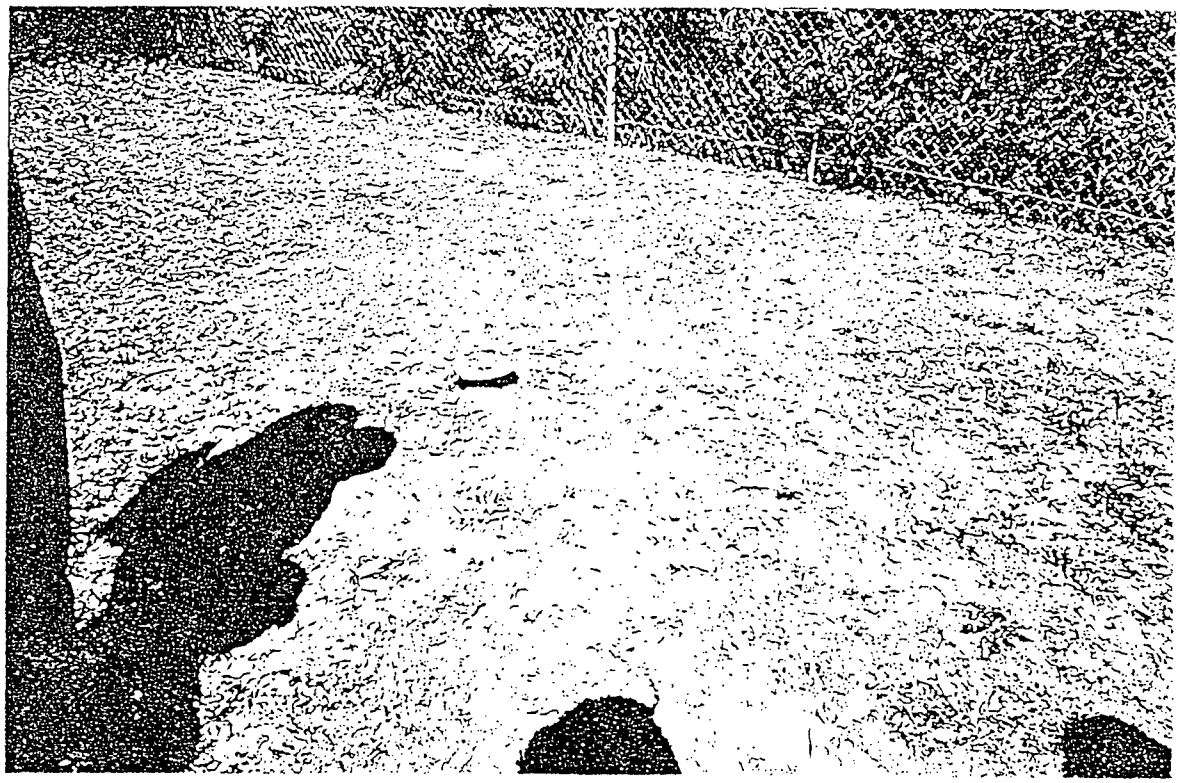
4. SWMU #1 and #2, Bays 2 and 3 of drum storage area taken looking southeast.

Wanda Parker 2/25/93



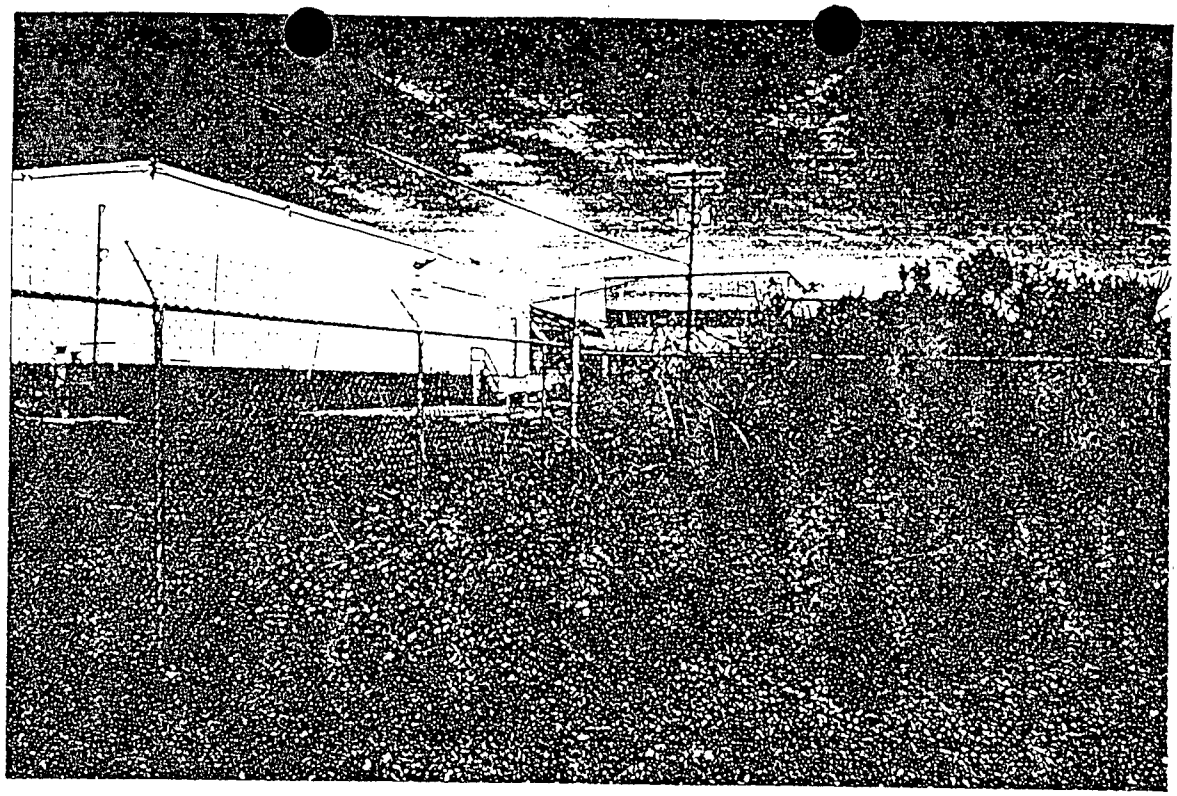
5. SWMU #1 and #2, Bay 1 of drum storage area with three out-going trailers taken looking southeast.

Wanda Parker 2/25/93



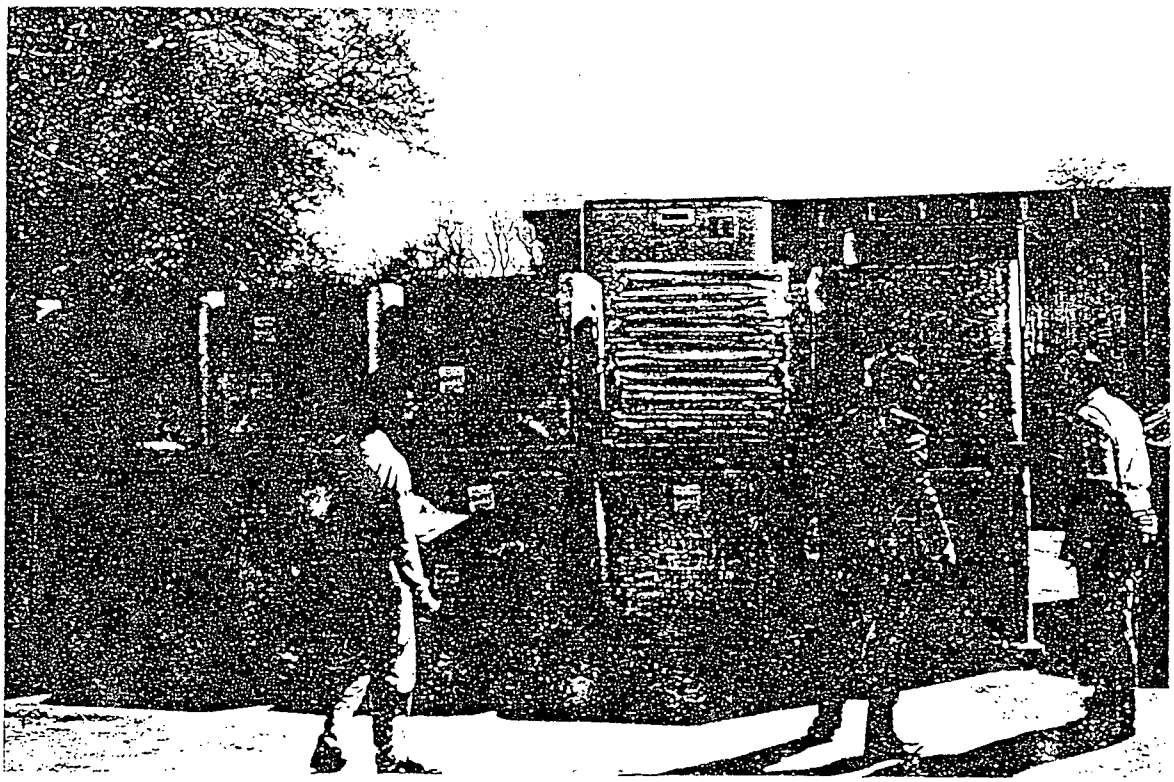
6. Ground water monitoring well located on the northwest corner of the facility.

Wanda Parker 2/25/93

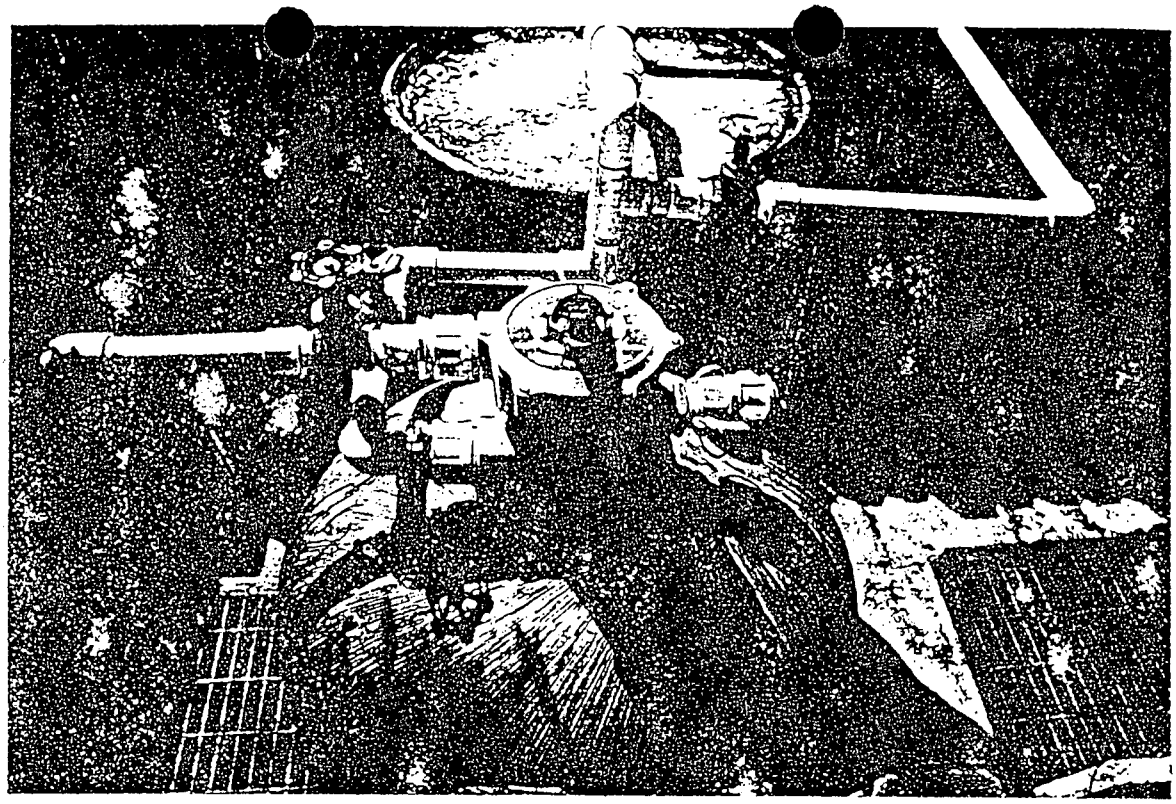


7. (l to r) National Fisheries and Helena Chemical facilities adjacent to UW&T taken looking northwest.

Wanda Parker 2/25/93

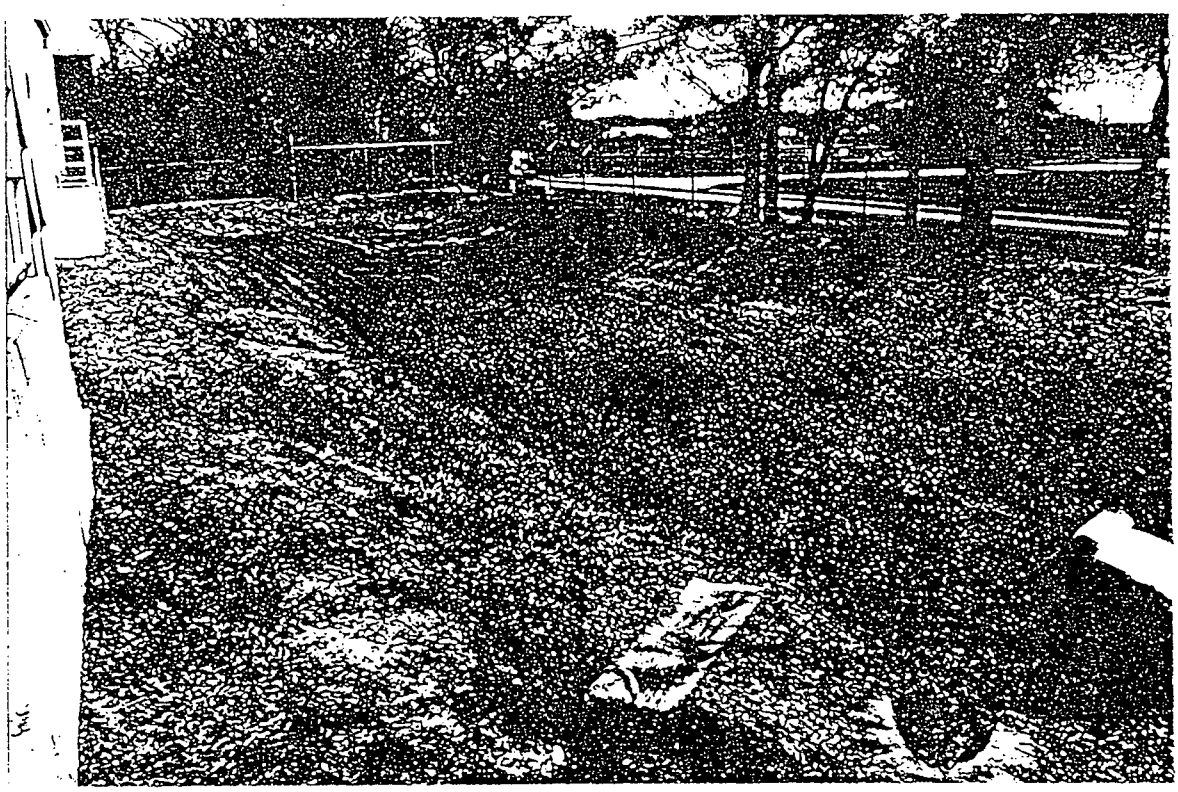


8. Empty tote tanks and jumbo sacks located on SWMU #2 taken looking southeast.



9. SWMU #6, Storm water Pretreatment System on the south side of the facility.

Wanda Parker 2/25/93

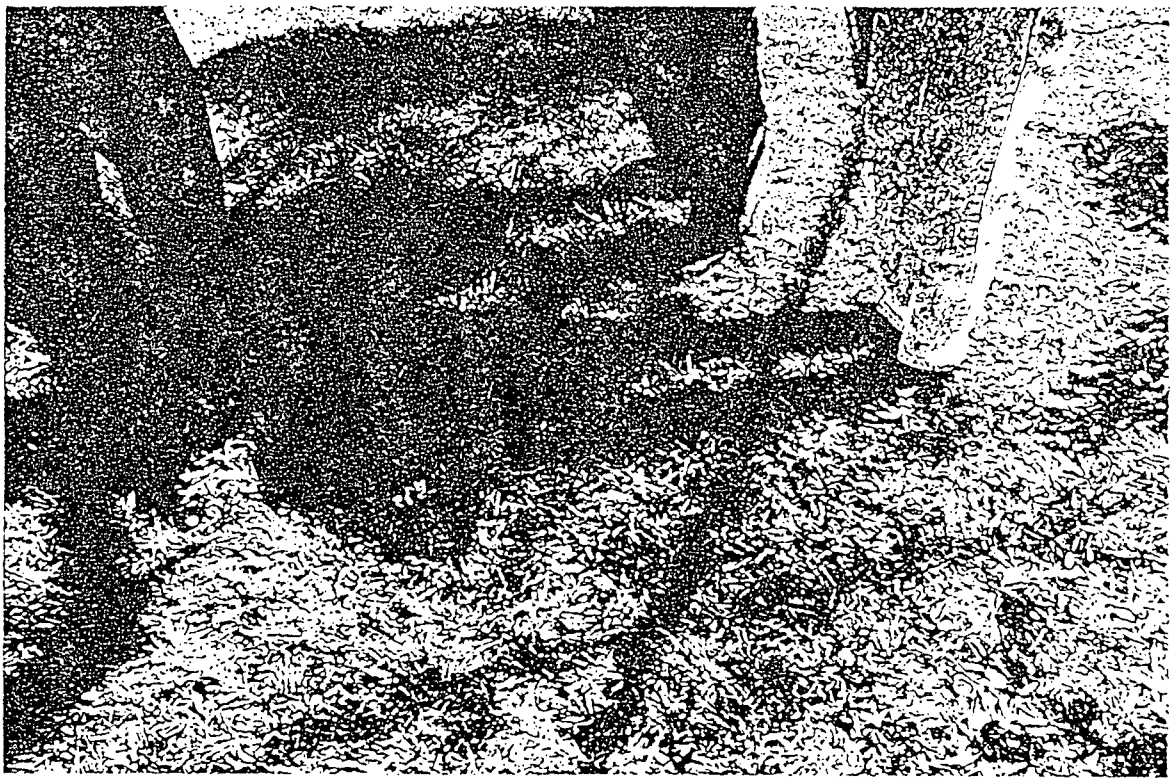


10. SWMU #3, Retention Pond on east side of facility.

Wanda Parker 2/25/93

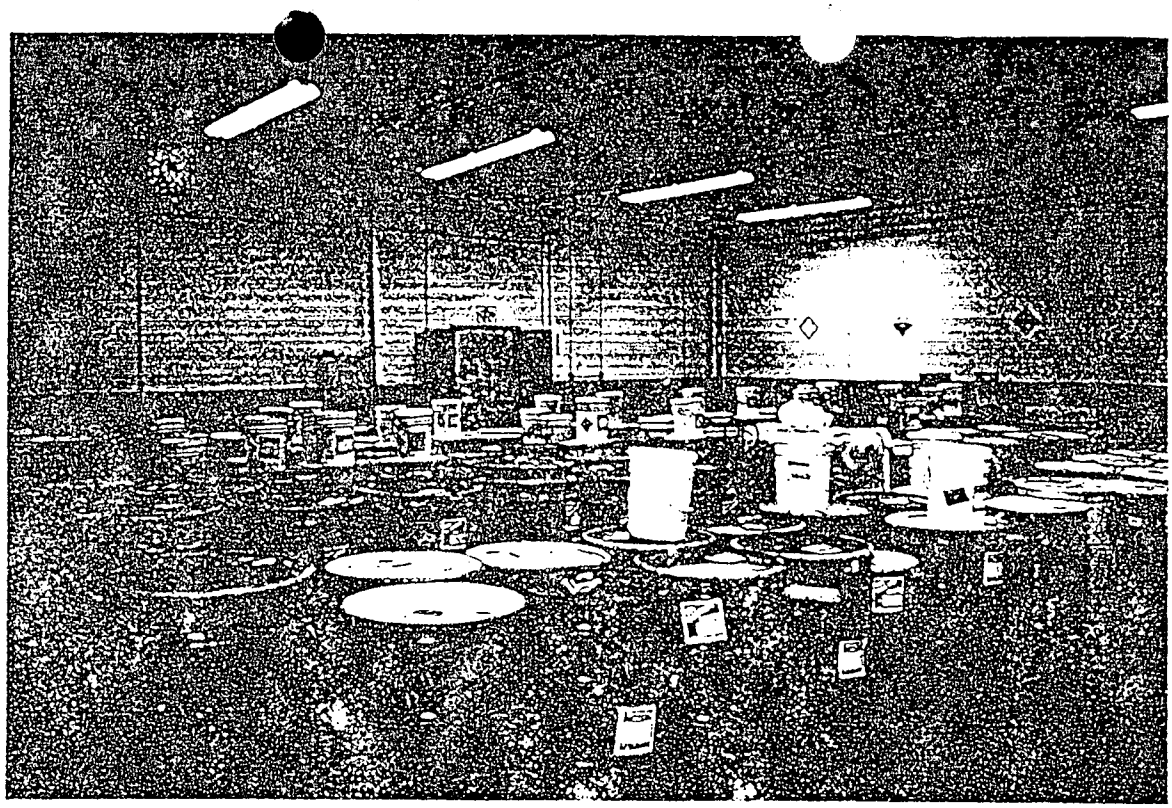
11. Overflow unit connected to SWMU #3.

Wanda Parker 2/25/93



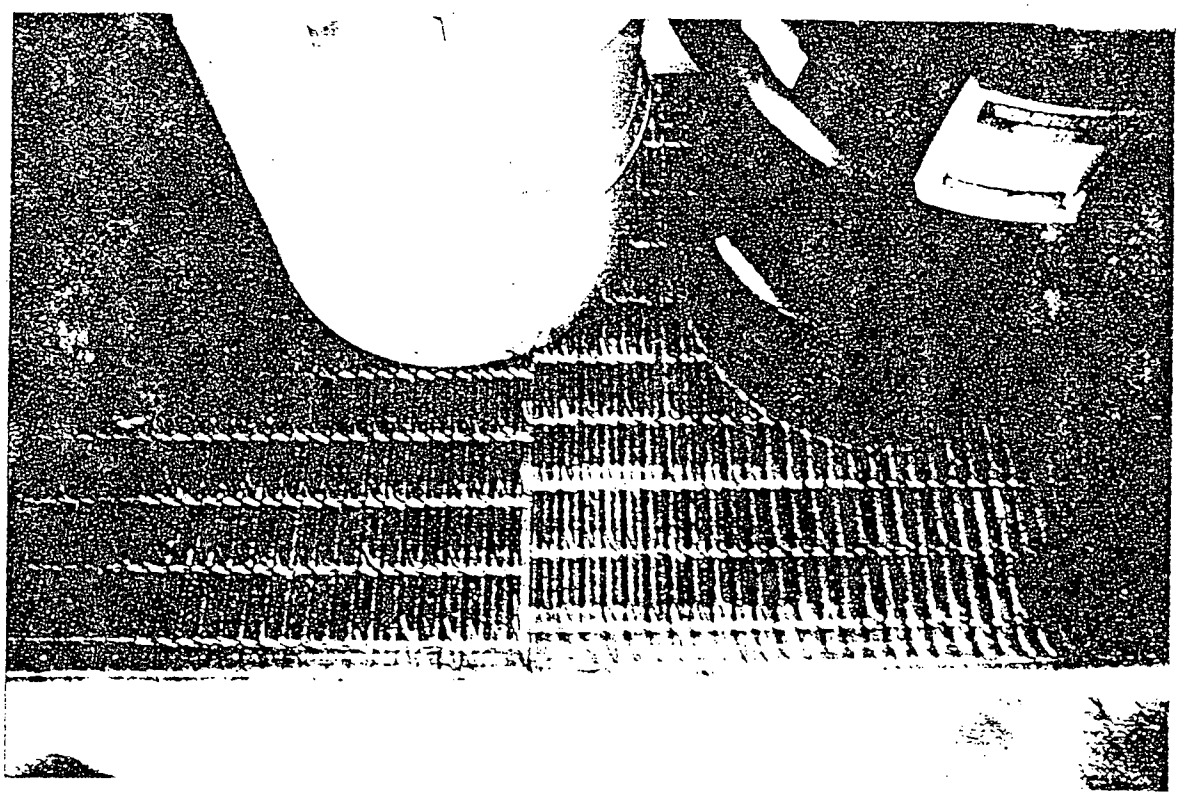
12. Ground water monitoring located on southeast side of facility.

Wanda Parker 2/25/93



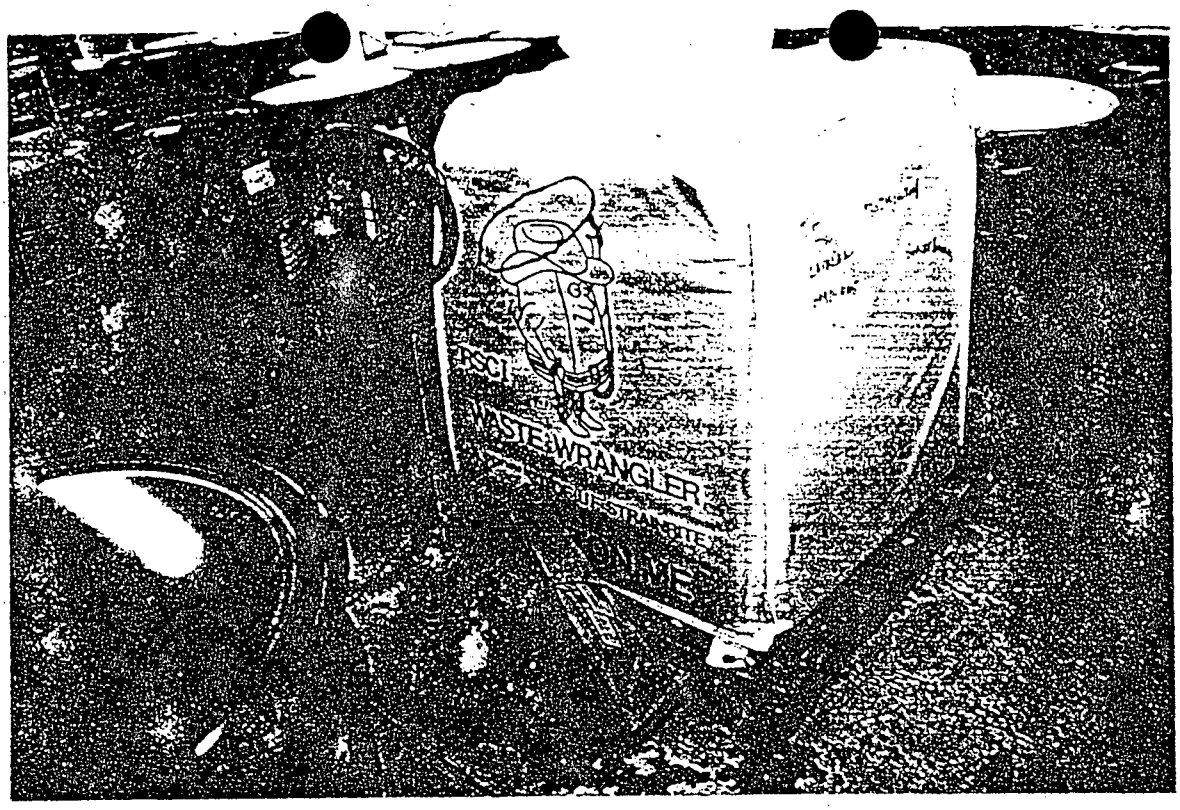
13. (Below center) Bay 3 of SWMU #1 taken looking east.

Wanda Parker 2/25/93



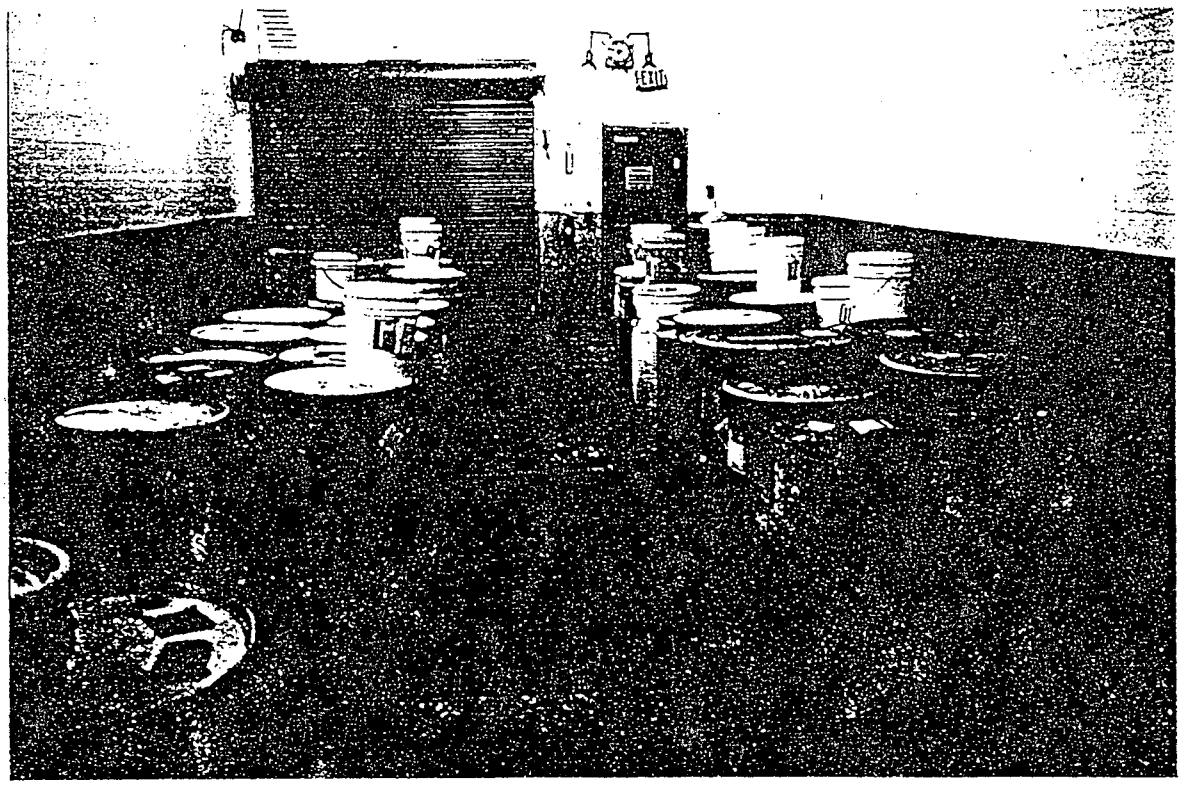
14. Sump located within Bay 3 of SWMU #1.

Wanda Parker 2/25/93



15. A jumbo sack of waste within Bay 3 of SWMU #1.

Wanda Parker 2/25/93

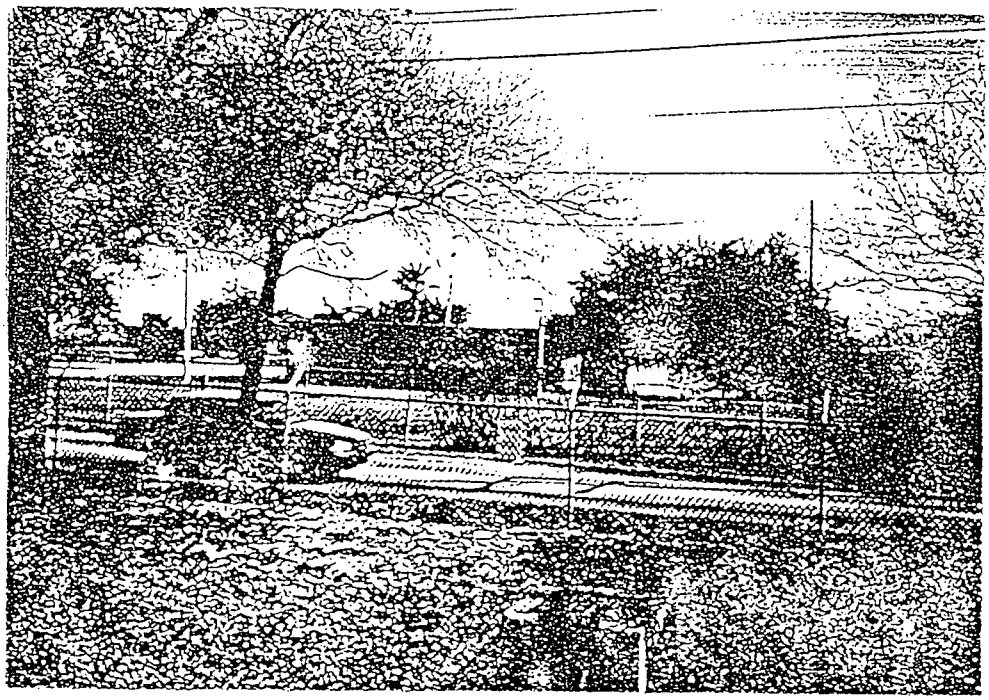


16. Bay 2 located within SWMU #1 taken looking west.

Wanda Parker 2/25/93

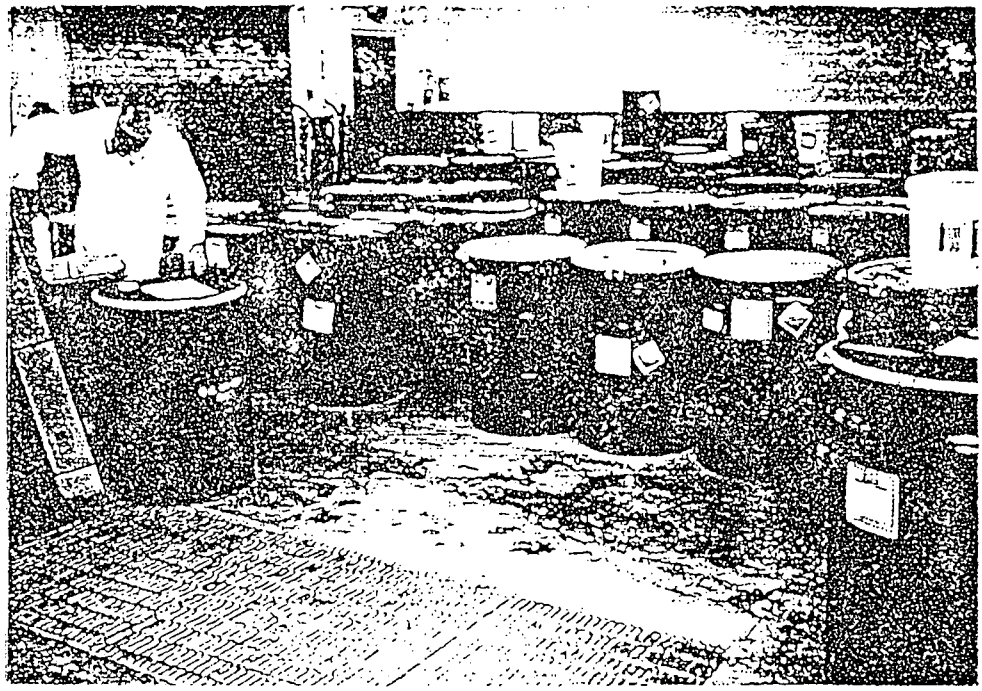
17. SWMU #4, Filter Press located in Bay 1 within SWMU #1.

Wanda Parker 2/25/93



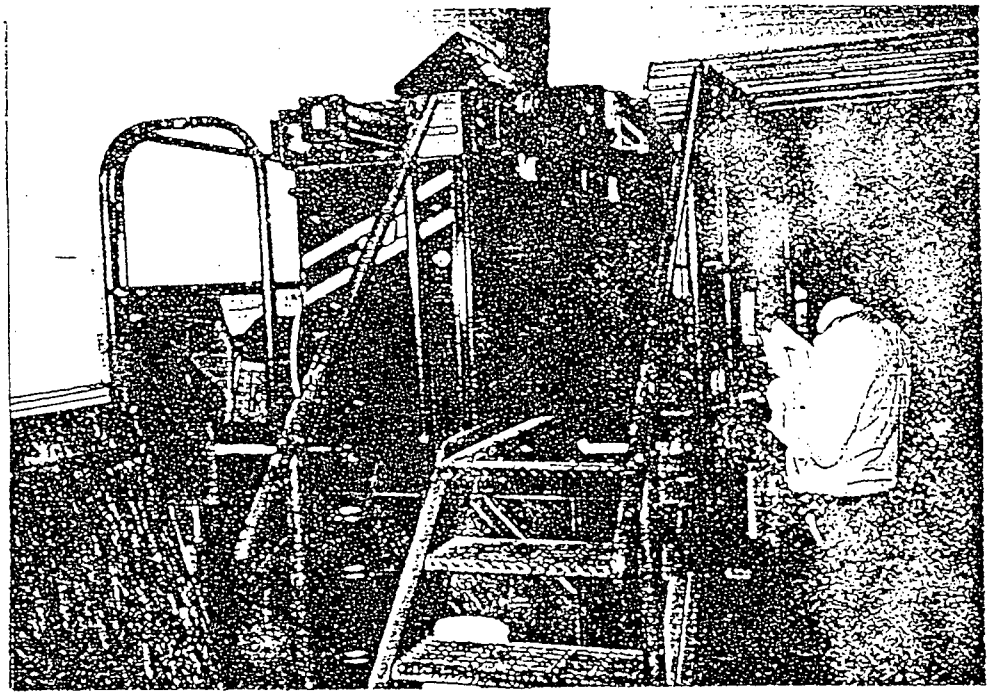
18. Stauffer Chemical Superfund site taken looking east from SWMU #3.

Harry Desai 2/25/93



19. SWMU #1, Bay #3 with sump unit shown.

Harry Desai 2/25/93



20. Filter Press (SWMU #4) not in operation.

Wanda Parker 2/25/93

C. VSI ATTENDEES SUMMARY

VSI Attendees Summary

UNIVERSAL WASTE & TRANSIT (UW&T)
RCRA FACILITY ASSESSMENT (RFA)
VISUAL SITE INSPECTION (VSI)
ATTENDEES

	Name	Organization	Telephone
1.	John Taylor	Universal Waste	(813)623-5302
2.	Roger Evans	FDEP/Tampa	(813)744-6100
3.	Harry Desai	EPA/Atlanta	(404)347-3433
4.	Bheem Kothur	FDEP/Tallahassee	(904)488-0300
5.	Wanda Parker	FDEP/Tallahassee	(904)488-0300

D. PERMITTED RCRA WASTES SUMMARY

Universal Waste & Transit, Inc.
Tampa Treatment and Storage Facility
FLD981932394

PERMITTED RCRA WASTES FOR STORAGE & TREATMENT

EPA HAZARDOUS WASTE NUMBER	WASTE TYPE	ESTIMATED ANNUAL QUANTITY (gallons)
D001	Ignitable	100,000
D002	Corrosive	25,000
D003	Reactive	5,000
D004 thru D043	Toxic Characteristic	60,000
F001 & F002	Halogenated Solvents	100,000
F003 & F005	Non-Halogenated Solvents	Included in D001
F004	Non-Halogenated Solvents	10,000
F006	Electroplating Sludges	Included in D003 thru D017
F007 thru F012	Electroplating Wastes	Included in D003
F020 thru F028	Pesticide Manufacturing & Other Dioxin-Related Waste	1,000
K001	Wood Preservative	1,00
K002 thru K008	Inorganic Pigments	3,000
K009 thru K011 K013 thru K030 K093 thru K096 K083 & K085 K103 thru K105	Organic Chemicals	3,500
K071;K073;K106	Inorganic Chemicals	600
K031 thru K043 K097 thru K099	Pesticides	1,500
K048 thru K052	Petroleum Refining	8,000
K061 & K062	Iron & Steel	10,000
K069 & K100	Secondary Lead	1,500
K084;K101;K102	Veterinary Pharmaceuticals	1,500
K086	Ink Formulation	20,000
K060 & K087	Coking	1,500
"P" Listed Waste	Acute Hazardous Wastes	4,000
"U" Listed Waste	Toxic Wastes	20,000

E. UW&T APPROVED DISPOSAL FACILITY SUMMARY

UNIVERSAL WASTE & TRANSIT, INC.

APPROVED DISPOSAL SITES

PRIMARY FACILITY accepting all waste:

UNIVERSAL WASTE AND TRANSIT, INC.
2002 North Orient Road
Tampa, FL 33619
EPA # FLD981932494
John Taylor
(813) 628-0182

Fully permitted Part B
RCRA TSD Facility

SECONDARY FACILITIES

CITY ENVIRONMENTAL, INC.
1550 Harper Street
Detroit, MI 48211
EPA # MID054683479
Jennifer Baker
(313) 923-2239

Non-Hazardous
RCRA Part A

ENSCO
American Oil Road
El Dorado, AR 71730
EPA # ARD069748192
Linda Harris
(813) 289-5600 / (501) 863-7173

Incineration

ENVIRONMENTAL ENTERPRISES, INC.
4650 Spring Grove Avenue
Cincinnati, OH 45232
EPA # OHD083377010
Ginnie Damron
(513) 541-1823

Treatment - Neutralization/
Deactivation

SECONDARY FACILITIES (continued)

GEO WASTE (Pecan Row Landfill)
Route 10, Box 485
Whetherington Lane
Valdosta, GA 31601
EPA # N/A
Donna Davis
(912) 241-8440

Non-Hazardous

GIANT CEMENT COMPANY
P. O. Box 218
Harleyville, SC 29448
EPA # SCD003351699
Mike Kirlin
(803) 462-7760

Cement Kiln

HERITAGE TREATMENT CENTER
4132 Pompano Road
Charlotte, NC 28216
EPA # NCD121700777
Mary Heil
(704) 391-4500

Aqueous Treatment
Hazardous & Non-Hazardous
Landfill

HERITAGE TREATMENT CENTER
7901 W. Morris Street
Indianapolis, IN 46231
EPA # IND093219012
Michelle Dowler
(317) 243-0811

Aqueous Treatment

MICHIGAN DISPOSAL
49350 N. I-94 Service Drive
Belleville, MI 48111
EPA # MID000724831
Tony Patrick
(313) 697-7830

Hazardous Waste Landfill

SECONDARY FACILITIES (continued)

QUADREX — Fuel Blending
1940 N.W. 67th Place
Gainesville, FL 32606-1649
EPA # FLD980711071
Raymond Whittle
(904) 373-6066

ROLLINS — Incineration
13351 Scenic Highway
Baton Rouge, LA 70807
EPA # LAD010039127
Connie Wilkerson
(504) 778-3535

SOUTHEASTERN CHEMICAL & SOLVENT — Fuel Blending/ Solvent Recovery
755 Industrial Road
Sumter, SC 29150
EPA # SCD036275626
Jackie Teeters
(803) 773-1400

SYSTECH — Fuel Blending
Arcola Road
Post Office Box 1097
Demoplis, AL 36732
EPA # ALD981019045
Tom McGhee
(204) 289-3222

F. EPA RFA LETTER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

JAN 30 1990

4WD-RCRA

Mr. Barry Swihart, Chief
Bureau of Waste Planning and Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Universal Waste and Transit, Inc.
EPA I.D. Number FLD 981 932 544

Dear Mr. Swihart:

The Environmental Protection Agency (EPA) conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at the referenced facility on August 18, 1988. This is a new facility and it was determined that there has been no evidence of a prior or continuing release of hazardous wastes or hazardous constituents at this site. Therefore, at this time, Section 3004(u) of the Hazardous and Solid Waste Amendments (HSWA) of 1984 does not apply.

Since, apparently, only the Section 3005(h) waste minimization and Section 3004(d) prohibitions on land disposal of specified wastes requirements of HSWA apply to this facility, a separate permit would not be required, provided the State permit incorporates these requirements. In this case, the State permit would constitute the full RCRA permit.

For facilities where only the above mentioned sections apply, the public notice, the notice of intent to issue, and cover page of the permit should contain the following information:

1. EPA has determined that the provisions of 3004(u) of HSWA do not apply; but if new information to the contrary becomes available, the permit may be reopened.

2. The permit incorporates both the Section 3005(h) HSWA Waste minimization certification requirements and Section 3004(d) Land Disposal prohibitions.

3. The State permit constitutes the full RCRA permit, and a federal permit is not required to address the provisions of HSWA.

Additionally, the permit should incorporate the waste minimization requirements, land disposal restrictions and condition for reopening the permit if it is later determined that 3004(u) applies.

We have enclosed recommended wording for inclusion in the public notice, notice of intent to issue, permit cover page and permit conditions.

If you have any questions concerning this matter, please contact Harry Desai at (404) 347-3433.

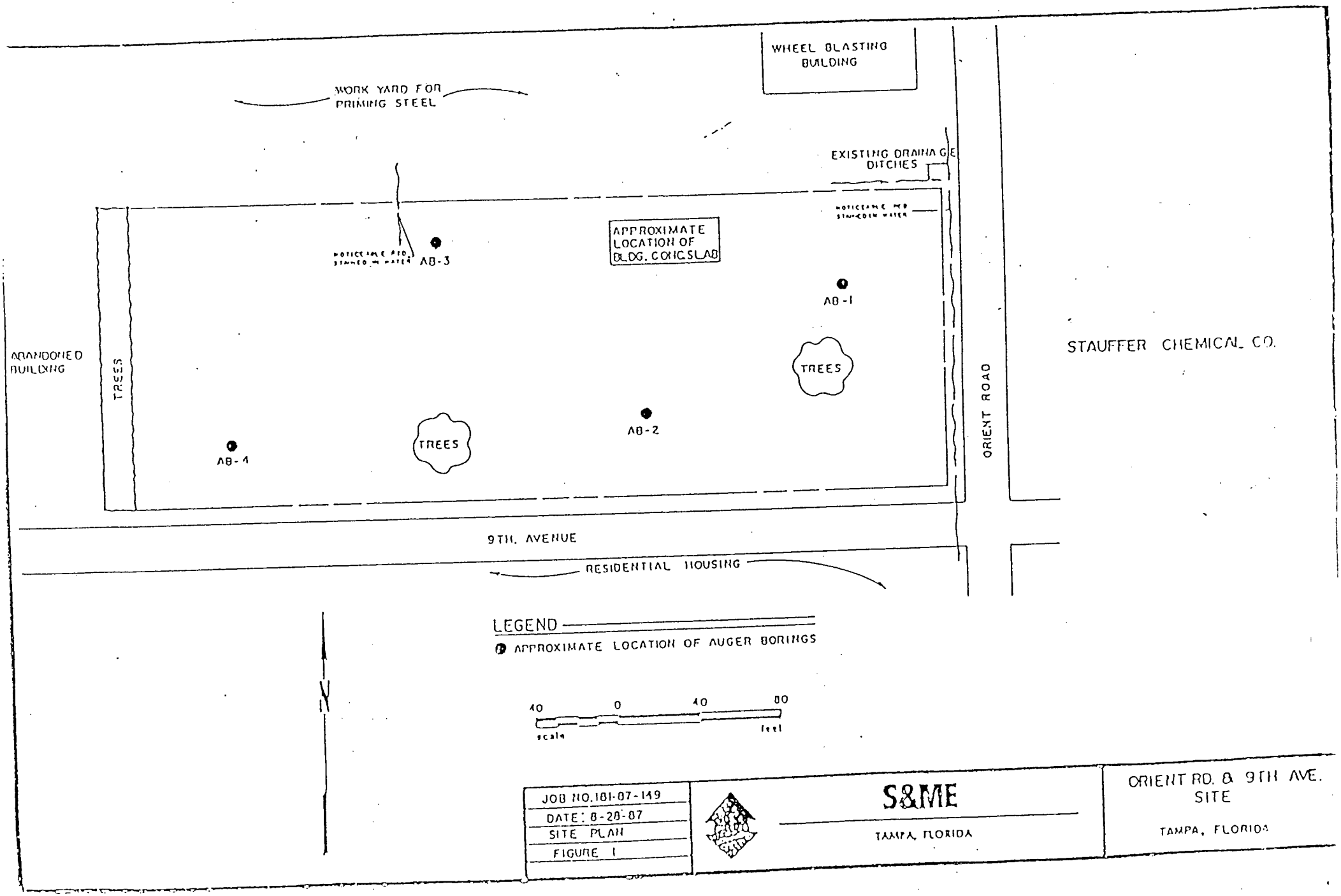
Sincerely yours,

James H. Scarbrough, P.E.
Chief, RCRA Branch
Waste Management Division

Enclosure

cc: Satish Kastury, FDER, Tallahassee
Bill Crawford, FDER, Southwest District

G. SOIL BORING SAMPLING AND ANALYSIS DATA



JOB NO.181-07-149 DATE: 8-28-87 SITE PLAN FIGURE 1	S&ME TAMPA, FLORIDA	ORIENT RD. & 9TH AVE. SITE TAMPA, FLORIDA

S&ME
Formerly, Soil & Material Engineers, Inc.
S&ME, Inc.
5909 Breckenridge Pkwy., Suite B
Tampa, FL 33610 (813) 623-2438

CLIENT: Can Am Engineering, Inc.

DATE: August 25, 1987

JOB NO.: 181-87-149

PROJECT: Porposed Warehouse Building
North Orient Road and 9th Avenue

AUGER BORING RECORDS

Auger No.	Depth (Feet) From	To	Soil Description
AB-1	0.0	0.7	Limerock and light brown slightly silty fine SAND (FILL)
	0.7	1.0	Dark brown silty fine SAND (SM)
	1.0	3.0	Brown slightly silty fine SAND (SP-SM)
	3.0	4.0	Brown - light brown fine SAND (SP)
			Groundwater encountered at 1.3 feet after 24 hours
			Soil sample obtained at a depth of 3 to 4 feet
			Boring terminated at 4.0 feet
AB-2	0.0	0.3	Brown fine SAND (FILL)
	0.3	1.0	Dark brown silty fine SAND with organics and wood fragments (roots) (FILL)
	1.0	1.5	Gray fine SAND (SP)
	1.5	2.0	Light gray fine SAND (SP)
	2.0	4.0	Brown fine SAND (SP)
			Groundwater encountered at 1.8 feet after 24 hours
			Soil sample obtained at a depth of 2 to 3 feet
			Boring terminated at 4.0 feet
AB-3	0.0	1.0	Dark gray fine SAND (SP)
	1.0	1.5	Dark gray fine SAND (SP)
	1.5	2.0	Dark brown silty fine SAND (SM)
	2.0	4.0	Light brown fine SAND (SP)
			Groundwater encountered at 1.5 feet after 24 hours
			Soil sample obtained at a depth fo 0.5 to 1.0 feet
			Boring terminated at 4.0 feet
AB-4	0.0	0.3	Dark gray silty fine SAND with roots (SM)
	0.3	1.0	Gray fine SAND (SP)
	1.0	2.5	Light gray fine SAND (SP)
	2.5	4.0	Dark brown silty fine SAND (SM)
			Groundwater encountered at 1.3 feet after 24 hours
			Soil sample obtained at a depth of 1 - 2 feet
			Boring terminated at 4.0 feet

THORNTON LABORATORIES, INC.
1145 EAST CASS STREET
TAMPA, FLORIDA 33601 - 2880
MARINE, ANALYTICAL AND ENVIRONMENTAL SERVICES

TWX 810 876-9134
THORNT LAB TPA

TELEPHONE (813) 223-6702
P.O. BOX 2680

September 8, 1987

Laboratory Number 566369-566372

Sample of Water

Date Received 8/19/87

For Soil & Material Engineers
5909 Breckenridge Pkwy. Suite B
Tampa, FL 33610

Attn: L. Mahiquez

Marks: Location: Orient & 9th Ave. Sampled by LFM/MKA, 8/19/87

CERTIFICATE OF ANALYSIS

Marks	W-1	W-2	W-3	W-4
Kit #	AB-1 5584	AB-2 5581	AB-3 5582	AB-4 5583
pH	6.0	4.8	3.6	3.7
Arsenic (As)	<0.005	<0.005	<0.005	<0.005
Barium (Ba)	0.24	0.10	0.16	0.47
Cadmium (Cd)	<0.002	<0.002	<0.002	<0.002
Chromium (Cr)	0.040	0.016	0.029	0.039
Copper (Cu)	0.008	0.006	0.005	0.008
Lead (Pb)	0.01	<0.01	<0.01	0.04
Mercury (Hg)	<0.0002	<0.0002	<0.0002	<0.0002
Nickel (Ni)	0.018	0.025	0.018	0.037
Selenium (Se)	<0.005	<0.005	<0.005	<0.005
Silver (Ag)	<0.005	<0.005	<0.005	<0.005
Zinc (Zn)	0.54	0.091	0.14	0.13
COD (Chemical Oxygen Demand)	397	189	305	480
Total Organic Halogens (TOX)	1.4	0.058	0.24	0.091

All results expressed in mg/L unless otherwise noted.

Analysis according to "Standard Methods for the Examination of Water & Wastewater" APHA, Latest Edition.

FDHRS LABORATORY ID#84147 and T84100

THORNTON LABORATORIES, INC.

H. STORM WATER PRE-TREATMENT SPECIFICATIONS

STORMWATER SYSTEM

Stormwater from the truck loading/unloading area drains to a concrete trench drain which flows from north to south along the loading area. The trench drains to concrete 640 gallon sump. A sump pump automatically pumps the stormwater from the sump through a sand filter, a carbon filter, and then to the stormwater retention pond. The pump is set to keep the sump level to below 300 gallons. A stormwater sump sample prior to being pumped through the sand and carbon filters (3/16/92) analysis shows organic and metals BDL (below detection limits) except for 7 ug/L Toluene. Trace amounts of Benzene, Ethylbenzene, Toluene, and Xylene (BETX) would be normal for any vehicle parking area stormwater analysis.

1/4 TO 1/2 HP SUBMERSIBLE SUMP PUMPS

Fig.	Stock No.	HP	NPT Discharge	GPH of Water at Total Head in Feet: 5 Ft.	10 Ft.	15 Ft.	18 Ft.	23 Ft.	Maximum Diameter Pipe Dimensions H	W	Cord Length
A	3P639	1/4	1½	2150	1750	750	Shut-off	—	6¼	9¾	8
A	3P641	1/3	1½	3250	2500	1550	900	Shut-off (22.9)	6¼	9¼	10
B	3P630	1/4	1¼	2150	1750	750	Shut-off	—	6¾	9¼	10
B	3P632	1/3	1¼	3250	2500	1550	900	Shut-off	6¼	9¼	25
C	3P643	1/2	1½	4700	3800	2700	1825	Shut-off	10¾	9¾	25

For draining flooded excavations, basements, construction sites, swimming pools. Come with 3 conductor cord. Do not run dry. Use with nonflammable liquids compatible with pump component materials. Manual pumps convert to automatic with 2P353 switch below.

1/4 & 1/3 HP Models—Epoxy coated cast iron or corrosion resistant bronze housings, polypropylene bases with intake screen, polycarbonate tops and glass filled polypropylene impellers. Steel motor shafts never touch water. Automatic pumps with preset diaphragm switch cut-in at approximately 7-10" and cut out at 1-3" from bottom of pump. Manual pumps start and run continuously. 1½" NPT discharge. No. 3P640 is equipped with a 3/4" garden hose adapter. 1/4 and 1/3 HP, 1500 RPM, 115VAC, 60 Hz single phase thermally protected motors sealed in oil for cool running. Sleeve bearings.

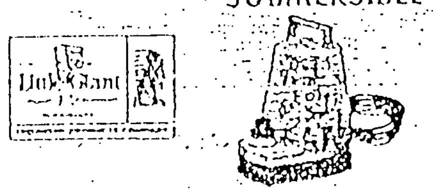
1/2 HP Model—Automatic pump with preset diaphragm switch which cuts in at 8½-12" and cuts out at 1½-4" from pump base. Epoxy coated cast iron housing and base with intake screen and glass-filled nylon impeller. Steel motor shaft never touches water. 1½" NPT discharge. 1/2 HP, 1500 RPM, 115VAC, 60 Hz shaded pole motor with ball bearings, permanently lubricated and thermally protected.

(*) Plastic adapter included to convert to 1¼" discharge.

Fig.	HP	Operation	Housing	Pump Materials: Base	Top	Impeller	Mfr's. Model	Stock No.	List	Each	Shpg. Wt.
A	1/4	Automatic	Cast Iron	Polypro.(*)	Polycarb.(†)	Polypro.(‡)	6 CIA	3P639	$161.10	$105.11	18.5
A	1/3	Automatic	Cast Bronze	[illegible]	[illegible]	[illegible]	8 CBA	3P641	271.90	170.85	19.3
B	1/4	Manual	Cast Iron	Polypro.	Polycarb.	Polypro.	6 CIM	[illegible]	131.00	85.85	16.0
B	1/3	Manual	Cast Iron	Polypro.	Polycarb.	Polypro.	8 CIM-W-25	3P632	[illegible]	115.81	19.0
C	1/2	Automatic	Cast Iron	Cast Iron	Cast Iron	Nylon(§)	10 CIA-W-25	3P643	411.65	262.17	38.0

(*) Polypropylene. (†) Polycarbonate. (‡) Glass filled polypropylene. (§) Glass-filled nylon.

SUBMERSIBLE UTILITY PUMP



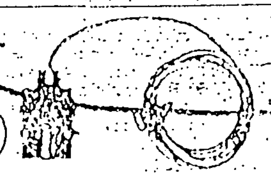
Designed for draining garages and basements and powering waterfalls. Removes water to 1/8" from floor. Converts to automatic sump pump operation by using the optional 2P353 Automatic Switch, listed below. 3 amp, 380 watt, 1/6 HP motor. Oil-filled cast aluminum motor housing for cooler running and longer life. 1" NPT outlet with 3/4" garden hose adapter included. Viton "O" ring, 302 stainless steel shaft, 18 ft. 18/3 SJTW-A cord with 3-prong grounding plug. Little Giant brand. (5-MSP-10).

No. 2P352. Shpg. wt. 7.0 lbs. List $92.00
Each $71.58

PERFORMANCE

Total Head in Feet in GPM: 1'	5'	10'	15'	20'	Shut-off
20.4	19.0	16.0	13.0	8.0	26.3'

AUTOMATIC SWITCH



Converts manual Little Giant pumps [illegible] 1/2 HP to automatic operation. [illegible] 10 amp, 115V, switch [illegible] 18/2 SJTW-A cord and piggyback 3-prong grounding plug/receptacle. Not for use with split-phase, capacitor start or 3-phase motors. Little Giant brand (RS-5-10).

No. 2P353. Shpg. wt. 1.0 lbs. List $38.00. Each $27.72

SIMER STAND-BY PUMP

12 VDC pump provides emergency service when electrical interruption or mechanical failure prevents main pump from operating.

System components include pump, check valve, mounting bracket, 120V UL Listed transformer, leads, power cord, polypropylene battery box with control panel, and adapters for batteries with side or top terminals.

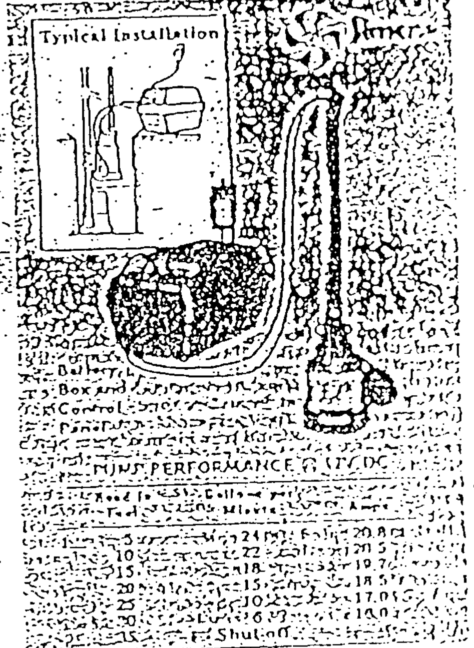
Battery box cover has built-in control panel with integrated circuits and LED lights which indicate the battery and system conditions. Audible alarm sounds when primary pump fails. Test-reset switch indicates system is operational.

12 VDC permanent magnet motor has phenolic/ceramic mechanical face type seals.

Pump cover, base and impeller are die-cast 380 aluminum with epoxy coating. 1¼" FNPT outlet. PVC check valve with weighted flapper and stepped shape accepts 1¼, 1½, or 2" discharge hose. 8-foot SJO 12-2 power cord has polarized connector. For use with nonflammable liquids compatible with pump component materials. Simer brand (A5000).

Heavy-duty automotive battery with reserve capacity of at least 130 minutes is recommended (not included). Use 24C, 24VCM, 27, 27C, 27CM, or 27F size. Dimension including terminals should not exceed 12L x 8W x 9"H.

No. 2P070. Shpg. wt. 19.0 lbs. List $443.62
Each $275.88



FLO-TEC EMERGENCY SUMP PUMP

Battery-powered reserve pump operates when primary pump fails due to power outage or product malfunction. 115V charger converts to 12 VDC. 10.5 amp draw at 5 ft. head. For use with nonflammable liquids compatible with pump component materials. Flotec brand.

Construction: All noncorrosive plastic battery case, pump and switch housing. Completely enclosed mercury float switch.

Dimensions: Maximum battery dimensions, 12¾L x 7¾W x 9¾"H; battery case, 16L x 9¾ x 10¾"H; pump, 7⅞ x 7"H.

Battery Requirement: Use only deep or high cycle marine or RV battery with a minimum rating of 180 min RC (reserve capacity).

Features include:

Time limit on charging. Charger shuts off after 24 hours, regardless of battery voltage.

Charge completion setting and upper and lower battery voltage limits. Microprocessor senses when battery has been completely charged and completes cycle with 1/2 hour timed charge. Prevents overcharging and extends battery life.

Reverse connection protection. If positive and negative connections from charger to battery are reversed, charger will remain off.

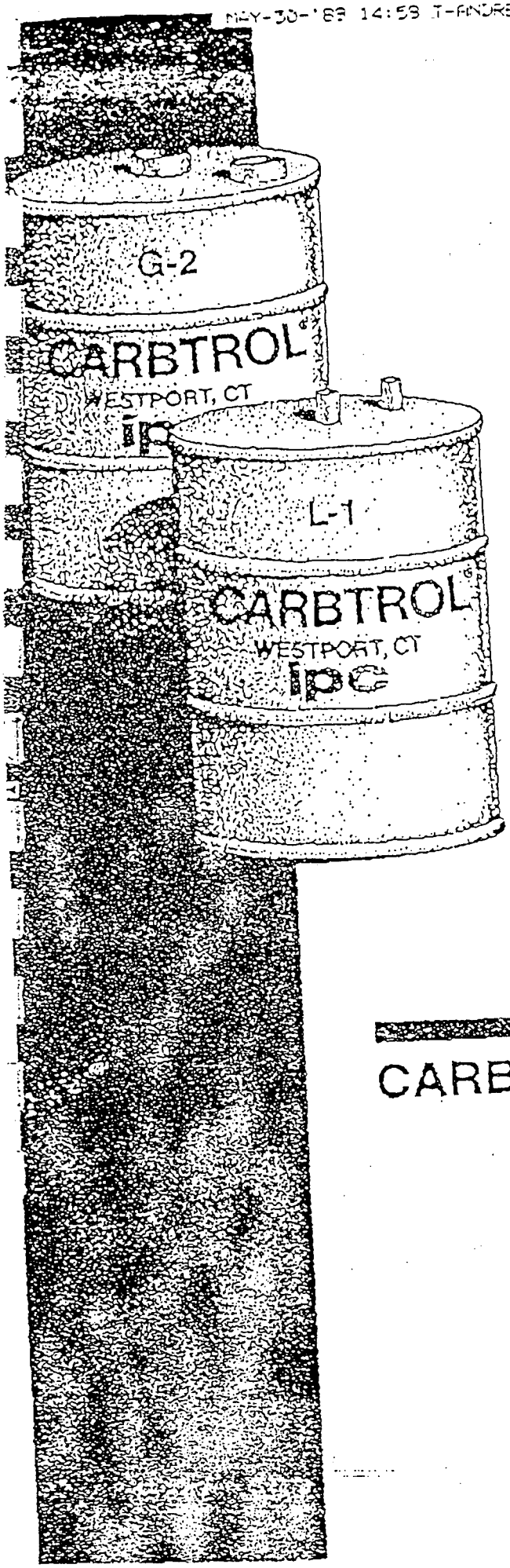
Spark prevention. After charger is connected to battery a short time delay occurs before charging starts.

Lights to indicate charging state—whether battery is in a charging mode or is fully charged.

Power-up system check verifies that all components are properly attached and operating.

Audible alarm sounds to indicate primary pump failure, power failure, and/or defective battery.

+No. 2P667. Shpg. wt. 14.0 lbs. List $177.72
Each $149.44

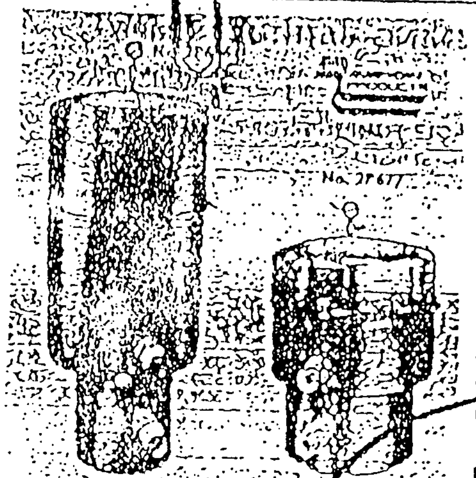


- CARBTROL® canisters utilize the proven effectiveness of granular activated carbon to provide economical and effective removal of organic contaminants from air and water.
- The canisters are designed for treatment of gas streams to 500 CFM and liquid systems to 10 gpm.
- CARBTROL® adsorption units consist of heavy-duty steel canisters, double epoxy-lined, filled with chemically inert internal distribution and collection systems.
- The canisters contain between 140 and 200 lbs. of custom-selected activated carbon media (depending on model and application) and can be operated at temperatures to 200°F and pressures to 10 PSIG.
- The CARBTROL® adsorption canister system is shipped to your facility ready for easy installation. Normally, all that is required is connection of inlet and outlet piping or ducting.
- When exhausted, the CARBTROL® canister can be shipped to an appropriate landfill or incinerator for disposal, since the canister is a D.O.T. approved container for handling hazardous waste.
- The service life of the CARBTROL® canister will vary according to application and concentration of contaminant to be removed. IPC Systems can provide an estimate of expected service life upon review of proposed operating conditions. (Listing of typical compounds removed by CARBTROL® on back page.)

CARBTROL® options:

- Custom activated carbon and synthetic adsorption media can be provided, including:
  - Potassium Hydroxide Impregnated Carbon
  - Silver Impregnated Carbon
  - Molecular Sieve
  - Silica Gel
  - And others depending on the contaminants to be removed.

BEST AVAILABLE COPY



DIATOMACEOUS EARTH FILTER

Bottom-to-top circulation. Water enters through the bottom of the filter, carrying the filter medium upward with it. DE medium (customer supplied) is deposited evenly on eight vertical grids for maximum contact between water and filter medium.

High-impact, high-temperature styrene grids are covered with a tough, monofilament polypropylene cloth, onto which the filter medium is deposited.

Top-to-bottom backwashing. Top-mounted manifold forces clean water downward, through the grids, washing the filter medium out through the waste outlet.

Machine-polished 18-gauge, 304 stainless steel tank with heliarc-welded seams.

Inlet and outlet ports have 1½ to 2" quick-coupled union fitting adapters.

Filters come complete with pressure gauge, air relief valve, 3-way mounting tee and fittings for either 1½ or 2" connections.

SAND FILTERS

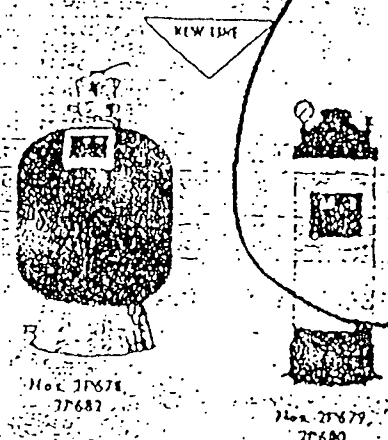
High-luster stainless steel shell or triple-wrapped fiberglass windings on a seamless water-tight polymeric inner shell. All internal components are high-temperature, high-strength plastic.

Efficient, easy-to-maintain underdrain uses eight threaded lateral arms, which can be removed for maintenance or repair. The arms are arranged radially around a central hub, so incoming water is spread evenly throughout the filter medium (customer supplies, 20-grade silica sand recommended).

Overdrain assembly removes easily to add media, and is hydraulically balanced to maintain a level sand bed during filtration.

External drain fitting. Internal automatic air bleed and see-through threaded access port.

Plumbing connections come complete with flush-mount bulkhead unions for quick initial installation or easy retrofit on existing plumbing.



CARTRIDGE FILTERS

... filter system incorporates the ... materials into an extremely designed, highly functional unit. Nonwoven polyester fiber cartridge is secured in an ABS-PVC tank held in place with interlocking stainless steel rod, and held securely at top with a large, easy-to-remove knob. Heavy-duty injection-molded ABS body has extruded PVC core.

SPECIFICATIONS AND PERFORMANCE DATA

Stock No.	Required Clearance	Suggested Pump HP	Filter Height	Filter Area	GPM per Sq. Ft. Filter	Total GPM	8-Hour Turnover
2P676	22L x 22W	1½	42"	48.0 sq. ft.	2.5*	120	57,600 Gal.
2P676	22 x 22	1	42	48.0	2.0†	96	43,200
2P677	22 x 22	¾ or 1	42	3.1	20.0	62	29,700
2P682	23½ x 37½	¾ or 1	37½	3.1	20.0	62	29,760
2P678	18½ x 28½	½ or ¾	28½	1.8	20.0	38	18,210
2P679	21"H	½	28	50.0	1.0	50	24,000
2P680	15"H	½	18¾	25.0	1.0	25	12,000

(*) Recommended rate for residential applications.
(†) Recommended rate for commercial applications.

FILTER ORDERING DATA

Type	Filter Area	Material	Mfr's. Model	Stock No.	List	Each	Shpg. Wt.
DE	48.0 sq. ft.	Stainless Steel	581090	2P676	$513.00	$426.32	75.0
Sand	3.1	Stainless Steel	542090	2P677	617.00	467.37	65.0
Sand	3.1	Fiberglass	557000	2P682	302.00	265.31	33.0
Sand	1.8	Fiberglass	556000	2P678	238.00	216.07	35.0
Cartridge	50.0	ABS Plastic	562090	2P679	150.00	136.86	20.0
Cartridge	25.0	ABS Plastic	561090	2P680	113.00	103.61	14.0

DOMESTIC WATER SYSTEMS

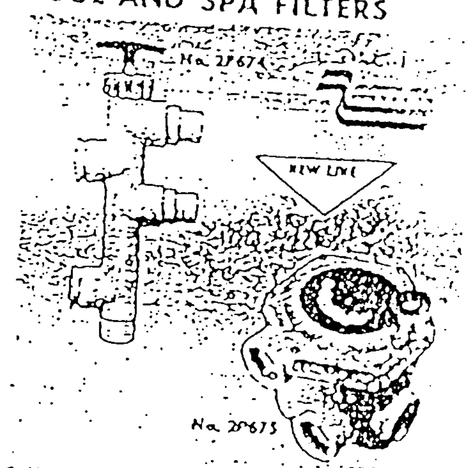
BACKWASH VALVES FOR POOL AND SPA FILTERS

ABS PUSH-PULL VALVE

Highly efficient valve locks easily into backwash or filter position with one easy movement.

- Corrosion-Resistant ABS Body
- Glass-Reinforced Piston Assembly
- Glass-Reinforced Polymeric Handle
- O-Ring Shaft Seals
- 2" S Ports and 2" Male Fittings with 1½" S Ports at Bottom

No. 2P674, 2" Push-Pull Valve. Shpg. wt. 3.3 lbs. List $45.42. Each $37.89



MULTIPORT ROTARY VALVE

Six operating positions permit operation of all types of DE and sand filters. Control handle locks into each operating position. Filter inlet and outlet ports permit horizontal, vertical, or horizontal and vertical plumbing to valve. An internal one-piece molded neoprene gasket surrounds all ports with extra sealing surfaces to ensure a positive seal. ABS plugs close ports not in use.

- Glass Reinforced Lever-Action Handle
- Heavy-Duty Stainless Steel Spring
- Abrasion-Resistant Noryl* Rotor and Shaft
- Dual O-Rings and Teflon Shaft Seals
- Corrosion-Free Cycolac* Body and Lid with Quad-Ring Seal
- Neoprene Sealing Gasket
- Built-In Lexan* Sight Glass
- 1½" FIP Threaded Ports

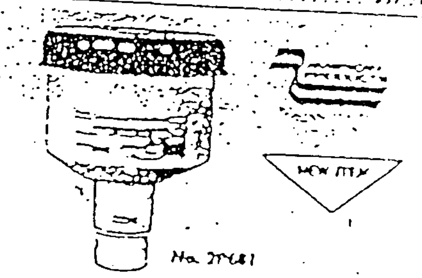
No. 2P675, 1½" Multiport Valve. Shpg. wt. 5.4 lbs. List $42.62. Each $37.27

SPA AND HOT TUB AIR BLOWER

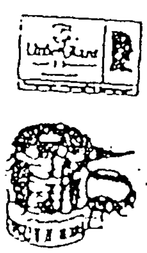
The American Supercharger II blower supplies added bubbles to spas, hot tubs, and jetted tubs. Air can be supplied through air channels or as an air boost for therapy jets.

Flame-retardant ABS housing has built-in 2" check valve on the air outlet. 1 HP, 120V, 6.6 amp motor has thermal overload protection. Air discharge of blower must be installed on a 2" or larger pipe, with the base of the blower no less than 12" above the water line.

No. 2P681, Air Blower. Shpg. wt. 8.7 lbs. List $143.06. Each $125.72



SWIMMING POOL COVER PUMP



- Manual on/off swimming pool cover pump draws down to 1/8" of standing water
- Epoxy-coated die-cast aluminum motor housing
- Removable volute for cleaning
- 18-ft. 3-conductor, oil-resistant cord and garden hose adapter included
- 1/200 HP 115V, 60 Hz. oil-filled motor with stainless steel shaft
- Little Giant brand
- See index under "Pumps, Swimming Pool Cover"

CHOOSE FROM A WIDE SELECTION OF PUMP MOTORS

Jetted Tub and Spa Motors
3/4 and 1 HP single and 2-speed motors available with or without pumptec*.

Industrial Pump Motors
Totally Enclosed Fan-Cooled 1/3 to 1½ HP 56C and 56J, single-phase and 1/2 to 3 HP 56C and 56J, in 3-phase available.

Square Flange Pool Pump Motors
1/3 to 2 HP 56 YZ, in high or low service factors available.

Jet Pump Motors
1/3 to 1½ HP, 56C and 56J, single or three-phase motors. Base mount motors available.

Swimming Pool Motors
1/2 to 2 HP, 56C and 56J, available with cast-iron or aluminum flange. High-efficiency pool motors from 3/4 to 1½ HP ratings.

Uniseal Flange Pool Pump Motors
3/4 and 1 HP, for use on pool cleaner pumps.

SEE INDEX TO LOCATE A PARTICULAR PUMP MOTOR

SAND FILTER

I. INITIAL GROUND WATER MONITORING DATA

pace laboratories, inc

Tampa, Florida
Coralville, Iowa
Novato, California
Leawood, Kansas
Irvine, California
Asheboro, North Carolina

January 05, 1990

Mr. Doug Ashline
Westinghouse Environmental Services
5909 Breckenridge Parkway
Suite B
Tampa, FL 33610

RE: PACE Project No. 291128.500
89401/Univer. Waste

Dear Mr. Ashline:

Enclosed is the report of laboratory analyses for samples received November 30, 1989.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Thomas A. Jackman, Ph.D.
Director, Florida Region

Enclosures

laboratories, inc

Mr. Doug Ashline
Page 2

January 05, 1990
PACE Project
Number: 29112850C

89401/Univer. Waste

PACE Sample Number:	630220
Date Collected:	11/29/8
Date Received:	11/30/8

Parameter	Units	MDL	Irrigat Well
ORGANIC ANALYSIS			
624 - VOLATILE ORGANIC COMPOUNDS			
Bromomethane	ug/L	7.1	ND
Carbon tetrachloride	ug/L	3.8	ND
Chlorobenzene	ug/L	2.5	3.2
Chloroethane	ug/L	4.1	ND
2-Chloroethylvinyl ether	ug/L	6.3	ND
Chloroform	ug/L	4.5	ND
Chloromethane	ug/L	4.7	ND
Dibromochloromethane	ug/L	3.0	ND
1,2-Dichlorobenzene	ug/L	4.1	ND
1,3-Dichlorobenzene	ug/L	3.9	ND
1,4-Dichlorobenzene	ug/L	4.2	ND
1,1-Dichloroethane	ug/L	4.4	ND
1,2-Dichloroethane	ug/L	3.9	ND
1,1-Dichloroethylene	ug/L	6.5	ND
trans-1,2-Dichloroethylene	ug/L	3.7	ND
1,2-Dichloropropane	ug/L	3.0	ND
cis-1,3-Dichloropropene	ug/L	1.4	ND
trans-1,3-Dichloropropene	ug/L	2.1	ND
Ethyl benzene	ug/L	4.2	ND
Methylene chloride	ug/L	10	ND
1,1,2,2-Tetrachloroethane	ug/L	1.8	ND
Tetrachloroethylene	ug/L	7.1	ND
Toluene	ug/L	4.3	ND
1,1,1-Trichloroethane	ug/L	4.3	ND
1,1,2-Trichloroethane	ug/L	3.1	ND
Trichloroethylene	ug/L	3.5	ND
Trichlorofluoromethane	ug/L	5.9	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

laboratories, inc

Novato, California
Leawood, Kansas
Irvine, California
Asheboro, North Carolina

Dr. Doug Ashline
Page 4

January 05, 1990
PACE Project
Number: 291128500

39401/Univer. Waste

PACE Sample Number:			630220	630230	630240
Date Collected:			11/29/89	11/29/89	11/29/89
Date Received:			11/30/89	11/30/89	11/30/89
			Irrigation		
Parameter	Units	MDL	Well	MW-1	MW-2
ORGANIC ANALYSIS					
608 - ORGANOCHLORINE PESTICIDES AND PCBS					
a-BHC	ug/L	12.5	-	-	17
b-BHC	ug/L	0.05	ND	ND	-
b-BHC	ug/L	2.5	-	-	ND
g-BHC	ug/L	0.05	ND	ND	-
g-BHC	ug/L	2.5	-	-	ND
d-BHC	ug/L	0.05	ND	ND	-
d-BHC	ug/L	2.5	-	-	ND
Heptachlor	ug/L	0.05	ND	ND	-
Heptachlor	ug/L	2.5	-	-	ND
Aldrin	ug/L	0.05	ND	ND	-
Aldrin	ug/L	2.5	-	-	ND
Heptachlor epoxide	ug/L	0.07	ND	ND	-
Heptachlor epoxide	ug/L	3.5	-	-	ND
Endosulfan I	ug/L	0.14	ND	ND	-
Endosulfan I	ug/L	7.0	-	-	ND
Dieldrin	ug/L	0.10	ND	ND	-
Dieldrin	ug/L	5.0	-	-	ND
Endrin	ug/L	0.08	ND	ND	-
Endrin	ug/L	4.0	-	-	ND
4,4-DDD	ug/L	0.3	ND	ND	-
4,4-DDD	ug/L	15	-	-	ND
Endosulfan II	ug/L	0.20	ND	ND	-
Endosulfan II	ug/L	10	-	-	ND
4,4-DDT	ug/L	0.30	ND	ND	-
4,4-DDT	ug/L	15	-	-	ND
4,4-DDE	ug/L	0.10	ND	ND	-
4,4-DDE	ug/L	5.0	-	-	ND
Endrin aldehyde	ug/L	1.0	ND	ND	-

MDL Method Detection Limit
ND Not detected at or above the MDL.

Mr. Doug Ashline
Page 6

January 05, 1990
PACE Project
Number: 291128500

89401/Univer. Waste

PACE Sample Number:			630220	630230	630240
Date Collected:			11/29/89	11/29/89	11/29/89
Date Received:			11/30/89	11/30/89	11/30/89
			Irrigation		
Parameter	Units	MDL	Well	MW-1	MW-2
ORGANIC ANALYSIS					
625 - BASE/NEUTRAL EXTRACTABLE SEMIVOLS					
Benzo(a)anthracene	ug/L	26	-	ND	-
Benzo(a)anthracene	ug/L	4.9	ND	-	ND
Benzo(a)pyrene	ug/L	12	ND	-	ND
Benzo(a)pyrene	ug/L	24	-	ND	-
Benzo(b)fluoranthene	ug/L	12	ND	-	ND
Benzo(b)fluoranthene	ug/L	60	-	ND	-
Benzo(k)fluoranthene	ug/L	11	ND	-	ND
Benzo(k)fluoranthene	ug/L	60	-	ND	-
Benzo(g,h,i)perylene	ug/L	12	ND	-	ND
Benzo(g,h,i)perylene	ug/L	55	-	ND	-
Bis(2-chloroethoxy)methane	ug/L	12	ND	-	ND
Bis(2-chloroethoxy)methane	ug/L	60	-	ND	-
Bis(2-chloroethyl)ether	ug/L	170	-	ND	-
Bis(2-chloroethyl)ether	ug/L	34	ND	-	ND
Bis(2-chloroisopropyl)ether	ug/L	13	ND	-	ND
Bis(2-chloroisopropyl)ether	ug/L	65	-	ND	-
Bis(2-ethyl hexyl)phthalate	ug/L	15	ND	-	ND
Bis(2-ethyl hexyl)phthalate	ug/L	75	-	ND	-
4-Bromophenyl phenyl ether	ug/L	30	-	ND	-
4-Bromophenyl phenyl ether	ug/L	6.0	ND	-	ND
Butyl benzyl phthalate	ug/L	26	-	ND	-
Butyl benzyl phthalate	ug/L	5.2	ND	-	ND
2-chloronaphthalene	ug/L	16	-	ND	-
2-chloronaphthalene	ug/L	3.3	ND	-	ND
4-chlorophenyl phenyl ether	ug/L	20	-	ND	-
4-chlorophenyl phenyl ether	ug/L	3.9	ND	-	ND
Chrysene	ug/L	24	-	ND	-
Chrysene	ug/L	4.7	ND	-	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

Mr. Doug Ashline
Page 7

January 05, 1990
PACE Project
Number: 291128500

89401/Univer. Waste

PACE Sample Number:			630220	630230	630240
Date Collected:			11/29/89	11/29/89	11/29/89
Date Received:			11/30/89	11/30/89	11/30/89
			Irrigation		
Parameter	Units	MDL	Well	MW-1	MW-2
ORGANIC ANALYSIS					
625 - BASE/NEUTRAL EXTRACTABLE SEMIVOLS					
Dibenzo(a,h)anthracene	ug/L	11	ND	-	ND
Dibenzo(a,h)anthracene	ug/L	55	-	ND	-
1,2-Dichlorobenzene	ug/L	29	-	ND	-
1,2-Dichlorobenzene	ug/L	5.8	ND	-	ND
1,3-Dichlorobenzene	ug/L	29	-	ND	-
1,3-Dichlorobenzene	ug/L	5.8	ND	-	ND
1,4-Dichlorobenzene	ug/L	26	-	ND	-
1,4-Dichlorobenzene	ug/L	5.2	ND	-	ND
3,3-Dichlorobenzidine	ug/L	26	-	ND	-
3,3-Dichlorobenzidine	ug/L	5.2	ND	-	ND
Diethyl phthalate	ug/L	33	-	ND	-
Diethyl phthalate	ug/L	6.6	ND	-	ND
Dimethyl phthalate	ug/L	34	-	ND	-
Dimethyl phthalate	ug/L	6.8	ND	-	ND
Di-n-butyl phthalate	ug/L	30	-	ND	-
Di-n-butyl phthalate	ug/L	6.1	ND	-	ND
2,4-Dinitrotoluene	ug/L	18	-	ND	-
2,4-Dinitrotoluene	ug/L	3.5	ND	-	ND
2,6-Dinitrotoluene	ug/L	21	-	ND	-
2,6-Dinitrotoluene	ug/L	4.2	ND	-	ND
Di-n-octyl phthalate	ug/L	10	ND	ND	ND
Fluoranthene	ug/L	5.8	ND	-	ND
Fluoranthene	ug/L	50	-	ND	-
Fluorene	ug/L	20	-	ND	-
Fluorene	ug/L	3.9	ND	-	ND
Hexachlorobenzene	ug/L	31	-	ND	-
Hexachlorobenzene	ug/L	6.2	ND	-	ND
Hexachlorobutadiene	ug/L	41	-	ND	-

MDL Method Detection Limit
ND Not detected at or above the MDL.

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89401/Univer. Waste

PACE Sample Number:			630220	630230	630240
Date Collected:			11/29/89	11/29/89	11/29/89
Date Received:			11/30/89	11/30/89	11/30/89
			Irrigation		
Parameter	Units	MDL	Well	MW-1	MW-2
ORGANIC ANALYSIS					
625 - BASE/NEUTRAL EXTRACTABLE SEMIVOLS					
Hexachlorobutadiene	ug/L	8.2	ND	-	ND
Hexachloroethane	ug/L	44	-	ND	-
Hexachloroethane	ug/L	8.9	ND	-	ND
Indeno(1,2,3-c,d)pyrene	ug/L	11	ND	-	ND
Indeno(1,2,3-c,d)pyrene	ug/L	55	-	ND	-
Isophorone	ug/L	28	-	ND	-
Isophorone	ug/L	5.5	ND	-	ND
Naphthalene	ug/L	18	-	36	-
Naphthalene	ug/L	3.5	ND	-	ND
Nitrobenzene	ug/L	34	-	ND	-
Nitrobenzene	ug/L	6.9	ND	-	ND
N-Nitrosodimethylamine	ug/L	22	-	ND	-
N-Nitrosodimethylamine	ug/L	4.4	ND	-	ND
N-Nitrosodi-n-propylamine	ug/L	40	-	ND	-
N-Nitrosodi-n-propylamine	ug/L	8.0	ND	-	ND
N-Nitrosodiphenylamine	ug/L	31	-	ND	-
N-Nitrosodiphenylamine	ug/L	6.2	ND	-	ND
Phenanthrene	ug/L	24	-	ND	-
Phenanthrene	ug/L	4.7	ND	-	ND
Pyrene	ug/L	22	-	ND	-
Pyrene	ug/L	4.3	ND	-	ND
1,2,4-Trichlorobenzene	ug/L	38	-	ND	-
1,2,4-Trichlorobenzene	ug/L	7.7	ND	-	ND
Hexachlorocyclopentadiene	ug/L	16	-	ND	-
Hexachlorocyclopentadiene	ug/L	3.3	ND	-	ND

MDL = Method Detection Limit
ND = Not detected at or above the MDL.

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89401/Univer. Waste

Parameter	Units	MDL	630250 MW-3	630260 Field Blank
PACE Sample Number:			630250	630260
Date Collected:			11/29/89	11/29/89
Date Received:			11/30/89	11/30/89
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Coliform, Fecal	COL/100 ml	1	ND	-
Coliform, Total	col/100 ml	1	ND	-
Cyanide, Total	mg/L	0.02	ND	ND
Phenol	mg/L	0.05	ND	ND
PRIORITY POLLUTANT LIST METALS FLAME				
Antimony	mg/L	0.2	ND	ND
Arsenic	ug/L	10	70	ND
Beryllium	mg/L	0.03	ND	ND
Cadmium	mg/L	0.02	ND	ND
Chromium	mg/L	0.05	0.11	ND
Copper	mg/L	0.05	ND	ND
Lead	mg/L	0.1	1.8	ND
Mercury	ug/L	0.2	ND	ND
Nickel	mg/L	0.2	ND	ND
Selenium	ug/L	10	ND	ND
Silver	mg/L	0.02	ND	ND
Thallium	mg/L	0.2	ND	ND
Zinc	mg/L	0.02	ND	-
ORGANIC ANALYSIS				
624 - VOLATILE ORGANIC COMPOUNDS				
Benzene	ug/L	2.7	17	ND
Bromodichloromethane	ug/L	4.3	ND	ND
Bromoform	ug/L	4.0	ND	ND
Bromomethane	ug/L	7.1	ND	ND
Carbon tetrachloride	ug/L	3.8	ND	ND
Chlorobenzene	ug/L	2.5	110	ND
Chloroethane	ug/L	4.1	ND	ND

MDL - Method Detection Limit
ND - Not detected at or above the MDL.

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Parameter	Units	MDL	630250 11/29/89 11/30/89 MW-3	630260 11/29/89 11/30/89 Field Blank
PACE Sample Number:				
Date Collected:				
Date Received:				
ORGANIC ANALYSIS				
624 - VOLATILE ORGANIC COMPOUNDS				
2-Chloroethylvinyl ether	ug/L	6.3	ND	ND
Chloroform	ug/L	4.5	ND	ND
Chloromethane	ug/L	4.7	ND	ND
Dibromochloromethane	ug/L	3.0	ND	ND
1,2-Dichlorobenzene	ug/L	4.1	43	ND
1,3-Dichlorobenzene	ug/L	3.9	ND	ND
1,4-Dichlorobenzene	ug/L	4.2	110	ND
1,1-Dichloroethane	ug/L	4.4	ND	ND
1,2-Dichloroethane	ug/L	3.9	ND	ND
1,1-Dichloroethylene	ug/L	6.5	ND	ND
trans-1,2-Dichloroethylene	ug/L	3.7	ND	-
1,2-Dichloropropane	ug/L	3.0	ND	ND
cis-1,3-Dichloropropene	ug/L	1.4	ND	ND
trans-1,3-Dichloropropene	ug/L	2.1	ND	-
Ethyl benzene	ug/L	4.2	ND	-
Methylene chloride	ug/L	10	ND	-
1,1,2,2-Tetrachloroethane	ug/L	1.8	ND	ND
Tetrachloroethylene	ug/L	7.1	ND	ND
Toluene	ug/L	4.3	ND	-
1,1,1-Trichloroethane	ug/L	4.3	ND	ND
1,1,2-Trichloroethane	ug/L	3.1	ND	ND
Trichloroethylene	ug/L	3.5	ND	-
Trichlorofluoromethane	ug/L	5.9	ND	-
Vinyl chloride	ug/L	6.0	ND	-
625 - ACID EXTRACTABLE SEMIVOLATILES				
4-chloro-3-methylphenol	ug/L	9.7	ND	ND
2-chlorophenol	ug/L	7.4	ND	ND
2,4-Dichlorophenol	ug/L	7.4	11	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

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January 05, 1990
PACE Project
Number: 291128500

99401/Univer. Waste

PACE Sample Number:			630250	630260
Date Collected:			11/29/89	11/29/89
Date Received:			11/30/89	11/30/89
Parameter	Units	MDL	MW-3	Field Blank
ORGANIC ANALYSIS				
625 - ACID EXTRACTABLE SEMIVOLATILES				
2,4-Dimethylphenol	ug/L	8.6	ND	ND
2,4-Dinitrophenol	ug/L	10	ND	ND
2-Methyl-4,6-Dinitrophenol	ug/L	10	ND	ND
2-Nitrophenol	ug/L	8.0	ND	ND
4-Nitrophenol	ug/L	8.3	ND	ND
Pentachlorophenol	ug/L	15	ND	-
Phenol	ug/L	3.0	ND	-
2,4,6-Trichlorophenol	ug/L	11	ND	ND
608 - ORGANOCHLORINE PESTICIDES AND PCBS				
a-BHC	ug/L	0.05	-	ND
a-BHC	ug/L	2.5	350	-
b-BHC	ug/L	0.05	-	ND
b-BHC	ug/L	2.5	ND	-
g-BHC	ug/L	0.05	-	ND
g-BHC	ug/L	2.5	ND	-
d-BHC	ug/L	0.05	-	ND
d-BHC	ug/L	2.5	ND	-
Heptachlor	ug/L	0.05	-	ND
Heptachlor	ug/L	2.5	ND	-
Aldrin	ug/L	0.05	-	ND
Aldrin	ug/L	2.5	ND	-
Heptachlor epoxide	ug/L	0.07	-	ND
Heptachlor epoxide	ug/L	3.5	ND	-
Endosulfan I	ug/L	0.14	-	ND
Endosulfan I	ug/L	7.0	ND	-
Dieldrin	ug/L	0.10	-	ND
Dieldrin	ug/L	5.0	ND	-
Endrin	ug/L	0.08	-	ND

MDL : Method Detection Limit
ND : Not detected at or above the MDL.

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89401/Univer. Waste

Parameter	Units	MDL	630250 MW-3	630260 Field Blank
PACE Sample Number:			630250	630260
Date Collected:			11/29/89	11/29/89
Date Received:			11/30/89	11/30/89
ORGANIC ANALYSIS				
608 - ORGANOCHLORINE PESTICIDES AND PCBS				
Endrin	ug/L	4.0	ND	-
4,4-DDD	ug/L	0.3	-	ND
4,4-DDD	ug/L	15	ND	-
Encosulfan II	ug/L	0.20	-	ND
Endosulfan II	ug/L	10	ND	-
4,4-DDT	ug/L	0.30	-	ND
4,4-DDT	ug/L	15	ND	-
4,4-DDE	ug/L	0.10	-	ND
4,4-DDE	ug/L	5.0	ND	-
Endrin aldehyde	ug/L	1.0	-	ND
Endrin aldehyde	ug/L	50	ND	-
Endosulfan sulfate	ug/L	1.0	-	ND
Endosulfan sulfate	ug/L	50	ND	-
Chlordane	ug/L	1.0	-	ND
Chlordane	ug/L	50	ND	-
Toxaphene	ug/L	150	ND	-
Toxaphene	ug/L	3.0	-	ND
PCB-1016	ug/L	0.5	-	ND
PCB-1016	ug/L	25	ND	-
PCB-1221	ug/L	0.5	-	ND
PCB-1221	ug/L	25	ND	-
PCB-1232	ug/L	0.5	-	ND
PCB-1232	ug/L	25	ND	-
PCB-1242	ug/L	0.5	-	ND
PCB-1242	ug/L	25	ND	-
PCB-1248	ug/L	0.5	-	ND
PCB-1248	ug/L	25	ND	-
PCB-1254	ug/L	0.5	-	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

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January 05, 1990
PACE Project Number: 291128500

89401/Univer. Waste

Parameter	Units	MDL	630250 MW-3	630260 Field Blank
PACE Sample Number:			630250	630260
Date Collected:			11/29/89	11/29/89
Date Received:			11/30/89	11/30/89
ORGANIC ANALYSIS				
608 - ORGANOCHLORINE PESTICIDES AND PCBS				
PCB-1254	ug/L	25	ND	-
PCB-1260	ug/L	0.5	-	ND
PCB-1260	ug/L	25	ND	-
625 - BASE/NEUTRAL EXTRACTABLE SEMIVOLS				
Acenaphthene	ug/L	4.4	ND	ND
Acenaphthylene	ug/L	4.5	ND	ND
Anthracene	ug/L	5.3	ND	ND
Benzo(a)anthracene	ug/L	4.9	ND	ND
Benzo(a)pyrene	ug/L	12	ND	ND
Benzo(b)fluoranthene	ug/L	12	ND	ND
Benzo(k)fluoranthene	ug/L	11	ND	ND
Benzo(g,h,i)perylene	ug/L	12	ND	ND
Bis(2-chloroethoxy)methane	ug/L	12	ND	ND
Bis(2-chloroethyl)ether	ug/L	34	ND	ND
Bis(2-chloroisopropyl)ether	ug/L	13	ND	ND
Bis(2-ethyl hexyl)phthalate	ug/L	15	ND	ND
4-Bromophenyl phenyl ether	ug/L	6.0	ND	ND
Butyl benzyl phthalate	ug/L	5.2	ND	ND
2-chloronaphthalene	ug/L	3.3	ND	ND
4-chlorophenyl phenyl ether	ug/L	3.9	ND	ND
Chrysene	ug/L	4.7	ND	ND
Dibenzo(a,h)anthracene	ug/L	11	ND	ND
1,2-Dichlorobenzene	ug/L	5.8	ND	ND
1,3-Dichlorobenzene	ug/L	5.8	ND	ND
1,4-Dichlorobenzene	ug/L	5.2	ND	ND
3,3-Dichlorobenzidine	ug/L	5.2	ND	ND
Diethyl phthalate	ug/L	6.6	ND	-
Dimethyl phthalate	ug/L	6.8	ND	-

MDL Method Detection Limit
ND Not detected at or above the MDL.

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PACE Sample Number:			630250	630260
Date Collected:			11/29/89	11/29/89
Date Received:			11/30/89	11/30/89
Parameter	Units	MDL	MW-3	Field Blank
ORGANIC ANALYSIS				
625 -.BASE/NEUTRAL EXTRACTABLE SEMIVOLS				
Di-n-butyl phthalate	ug/L	6.1	ND	ND
2,4-Dinitrotoluene	ug/L	3.5	ND	ND
2,6-Dinitrotoluene	ug/L	4.2	ND	-
2,6-Dinitrotoluene	ug/L	8.7	-	4.2
Di-n-octyl phthalate	ug/L	10	ND	-
Fluoranthene	ug/L	5.8	ND	-
Fluorene	ug/L	3.9	ND	-
Hexachlorobenzene	ug/L	6.2	ND	-
Hexachlorobutadiene	ug/L	8.2	ND	-
Hexachloroethane	ug/L	8.9	ND	-
Indeno(1,2,3-c,d)pyrene	ug/L	11	ND	-
Isophorone	ug/L	5.5	ND	-
Naphthalene	ug/L	3.5	ND	-
Nitrobenzene	ug/L	6.9	ND	-
N-Nitrosodimethylamine	ug/L	4.4	ND	-
N-Nitrosodi-n-propylamine	ug/L	8.0	ND	-
N-Nitrosodiphenylamine	ug/L	6.2	ND	-
Phenanthrene	ug/L	4.7	ND	-
Pyrene	ug/L	4.3	ND	-
1,2,4-Trichlorobenzene	ug/L	7.7	ND	ND
Hexachlorocyclopentadiene	ug/L	3.3	ND	-

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

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PACE Project
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The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my direct supervision.

Thomas A. Jackman, Ph.D.
Director, Florida Region

Michael W. Palmer
Organic Chemistry Manager

J. SUBSEQUENT GROUND WATER MONITORING DATA

UNIVERSAL WASTE & TRANSIT, INC.
2002 N. ORIENT ROAD
TAMPA, FLORIDA 33619

GROUNDWATER MONITORING

MAY 27, 1992

	S#1	S#2	S#3
METALS (mg/L)			
ARSENIC	0.13	0.068	0.22
BARIUM			
CADMIUM			0.021
CHROMIUM	0.09		0.35
LEAD			
MERCURY			
SELENIUM			0.01
SILVER			
MISC. (mg/L)			
BICARBONATES			
CALCIUM	197	370	331
CHLORIDE	12.8	28.5	25
CONDUCTIVITY (uhmos/cm)	2040	2530	4220
FLUORIDE	0.08	0.24	0.05
MAGNESIUM	14.7	48.6	18.1
SODIUM	10.1	20.4	20.6
NITRATE	0.2		8.58
TOTAL PHENOLS (ug/L)	153	817	204
SULFATE	2180	2430	3020
TURBIDITY (ntu)	20.9	38.7	160
TOTAL ORGANIC CARBON	49.9	63.4	53.5
PESTICIDES (ug/L)			
ENDRIN			
LINDANE			
METHOXYCHLOR			
TOXAPHENE			
HERBICIDES (ug/L)			
2,4 - D	13.9	13.9	11.4
2,4,5 - TP (SILVEX)			
GC 601 (ug/L)			
CHLOROMETHANE			
BROMOMETHANE			
VINYL CHLORIDE			
CHLOROETHANE			
METHYLENE CHLORIDE			
TRICHLOROFLUOROMETHANE			
1,1-DICHLOROETHENE			
1,1-DICHLOROETHANE			
TRANS-1,2-DICHLOROETHENE			
CHLOROFORM			1.5
1,2-DICHLOROETHANE			

1,1,1-TRICHLOROETHANE			
CARBON TETRACHLORIDE			
BROMODICHLOROMETHANE			
1,2-DICHLOROPROPANE			34
TRANS-1,3-DICHLOROPROPENE			
TRICHLOROETHENE			
DIBROMOCHLOROMETHANE			
1,1,2-TRICHLOROETHANE			
CIS-1,3-DICHLOROPROPENE			
2-CHLOROETHYLVINYL ETHER			
BROMOFORM			
1,1,2,2-TETRACHLOROETHANE			
TETRACHLOROETHENE			
CHLOROBENZENE		1.7	15
1,3-DICHLOROBENZENE			
1,2-DICHLOROBENZENE			11
1,4-DICHLOROBENZENE			22
DICHLOROFLUOROMETHANE			
GC 602 (ug/L)			
BENZENE		1.1	3.7
TOLUENE	3	6	3.3
ETHYLBENZENE	13	36	2.4
CHLOROBENZENE		1.7	15
1,4-DICHLOROBENZENE			22
1,3-DICHLOROBENZENE			
1,2-DICHLOROBENZENE			11
PESTICIDE 608 (ug/L)			
ALPHA BHC			
BETA BHC			
LINDANE - GAMMA BHC		0.225	2.16
DELTA BHC			
HEPTACHLOR			
ALDRIN			
HEPTACHLOR EPOXIDE			
ENDOSULFAN I			
4,4' -DDE			
DIELDRIN			
ENDRIN			
ENDOSULFAN II			
4,4' -DDD			
ENDRIN ALDEHYDE			
ENDOSULFAN SULFATE			
4,4' -DDT			
CHLORDANE			
TOXAPHENE			
METHOXYCHLOR			
PCB - 1016			
PCB - 1221			
PCB - 1232			
PCB - 1242			
PCB - 1248			
PCB - 1254			
PCB - 1260			

K. EFFLUENT SAMPLING AND ANALYSIS DATA

Environmental Conservation Laboratories
10207 General Drive
Orlando, Florida 32824
407 / 826-5314
Fax 407 / 850-6945

ENCO Laboratories
DHRS Certification No 83318, E83182

CLIENT : Universal Waste & Transit
ADDRESS: 2002 N. Orient Road
Tampa, FL 33619

REPORT # : 7423
DATE SUBMITTED: March 5, 1992
DATE REPORTED : March 16, 1992
DATE AMENDED : March 18, 1992

ATTENTION: Miguel Demelli

SAMPLE IDENTIFICATION

Water sample submitted and
identified by client as:

Project #DWT001
03/04/92

MANAGER, CLIENT SERVICES David J. Vesey
David J. Vesey

RESULTS OF ANALYSIS

EPA METHOD 8240 - TCLP VOLATILES	DWT001	units
Chloromethane	BDL(10)	ug/L
Bromomethane	BDL(10)	ug/L
Vinyl Chloride	BDL(10)	ug/L
Chloroethane	BDL(10)	ug/L
Methylene Chloride	BDL(5)	ug/L
Acetone	BDL(50)	ug/L
Carbon Disulfide	BDL(5)	ug/L
Trichlorofluoromethane	BDL(5)	ug/L
1,1-dichloroethene	BDL(5)	ug/L
1,1-dichloroethane	BDL(5)	ug/L
total-1,2-dichloroethene	BDL(5)	ug/L
Chloroform	BDL(5)	ug/L
1,2-dichloroethane	BDL(5)	ug/L
2-butanone (MEK)	BDL(50)	ug/L
1,1,1-trichloroethane	BDL(5)	ug/L
Carbon Tetrachloride	BDL(5)	ug/L
Vinyl Acetate	BDL(50)	ug/L
Bromodichloromethane	BDL(5)	ug/L
1,2-dichloropropane	BDL(5)	ug/L
trans-1,3-dichloropropene	BDL(5)	ug/L
Trichloroethene	BDL(5)	ug/L
Dibromochloromethane	BDL(5)	ug/L
1,1,2-trichloroethane	BDL(5)	ug/L
Benzene	BDL(5)	ug/L
cis-1,3-dichloropropene	BDL(5)	ug/L
2-chloroethyl vinyl ether	BDL(25)	ug/L
Bromoform	BDL(5)	ug/L
4-methyl-2-pentanone	BDL(50)	ug/L
2-hexanone	BDL(50)	ug/L

BDL = Below Detection Level; detection level in parentheses

RESULTS OF ANALYSIS

EPA METHOD 8240 - TCLP VOLATILES (CONTINUED)	DWT001	units
1,1,2,2-tetrachloroethane	BDL(5)	ug/L
Tetrachloroethene	BDL(5)	ug/L
Toluene	7	ug/L
Chlorobenzene	BDL(5)	ug/L
Ethylbenzene	BDL(5)	ug/L
Styrene	BDL(5)	ug/L
Xylenes (o&m)	BDL(5)	ug/L
Xylene (p)	BDL(5)	ug/L

TCLP METALS ANALYSIS	DWT001	units
Arsenic, As	<0.10	mg/L
Barium, Ba	<3.00	mg/L
Cadmium, Cd	<0.200	mg/L
Chromium, Cr	<1.0	mg/L
Lead, Pb	<1.00	mg/L
Mercury, Hg	<0.005	mg/L
Selenium, Se	<0.10	mg/L
Silver, Ag	<0.400	mg/L

BDL = Below Detection Level; detection level in parentheses
< = Less Than

ENCO LABORATORIES
REPORT # : 7423
DATE REPORTED: March 16, 1992
DATE AMENDED : March 18, 1992
REFERENCE : Project #DWT001

QUALITY CONTROL DATA

Parameter	% Recovery MS/MSD/LCS	Allowable Limits	Relative % Difference
TCLP Metals			
Arsenic	100/99/89	63-139	2
Barium	102/102/96	64-135	<1
Cadmium	100/104/100	72-121	4
Chromium	100/96/92	63-148	4
Lead	98/92/90	63-135	6
Mercury	94/102/111	40-140	8
Selenium	93/94/92	58-126	1
Silver	96/95/96	89-112	<1

< = Less Than

ENCO Laboratories

CONSERVATION LABORATORIES
10207 GENERAL DRIVE, ORLANDO, FLORIDA 32824
(407) 826-5314

CHAIN OF CUSTODY RECORD

PROJECT NO.: DWT001

PROJECT NAME:

SAMPLER'S (SIGNATURE): Sally Elder

STATION NO.	DATE	TIME	COMPOSITE	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCLP volatiles	TCLP metals							REMARKS
	3/4	PM		X		1	X	X							

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
S. Elder					
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME:	REMARKS: #7423
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	RECEIVED FOR LABORATORY BY:	3-5-93	

L. VSI LOG BOOK/NOTES

Universal Waste : Transit RFA 2/25/93

Wanda Parker	FDER/Tall.	(904) 488-0300
Roger Evans	FDER/TPA	(813) 744-6100
John Taylor	Universal Waste	(813) 623-5302
BHEEM KOTHUR	DER/TALL	904-488-0300
Harry Desai	EPA	404-347-3433

3. Well abandoned. (document)

4. no, non-haz, never haz

5. Helena ground H_2O flows to site
Stauffer " " " to site
WMD Dixie

Periodic quarterly to annual testing PBS+J.

Turn around weekly for flammable Quadrex
" " monthly
Raulings for poison for burning
Laidlaw & Chem. Wst.

→ Trench, Pre-treatment area, pond

4 lab rotate in 2s
QC sample, for characteristics
Samples held for 90 days
Bucked in with drums
fingerprinting
Satellite Units
7 Bays

Unknown pad 85 gallon
Spill Protection

#1 Dumpster
#2 Lab satelite units
#3 Empty drums + Safety Eq.
#4 Bay 2 + 3
#5 3 out bound in Bay 1
#6 New empty drums
#7 Eq. Storage
#8 NDwell #1
#9 Corner Fishing + Helena
#10 Tote tanks + Jumbo sacks
#11 Irrigation Well for sprinklers
#12 Storm N2 pretreat Sumps sandfil, carfil
#13 Storm drain #1
#14 " " #2
#15 Picc Pond
#16 Sewer Discharge
#17 Overflow unit
#18 GW #2
#19 Storm N2O Trench
#20 Bay #3
#21 Sump in Bay #3
#22 Jumbo Sack
#23 Bay #2 + Sump.
#24 Filter Press

Forklift

Bay #1
Filter Press

LDL meter for measuring vapors

NP ✓
Soil Borings Map ✓ setting
Sumps Map + Specs ✓ setting
SW Permit ✓
Customer List ✓

Summary of GW Before + After
" of Annual Rpt

270.42E

Capacity of Sump and Pump efficiency.
Filter maintenance (ordinance)
Sampling Soil
No background on wells
Container prior approval.

Send to Agw → DEC

Universal Waste & Transit, Inc.
FLD 981932394

B. General Facility Information

1. Date facility began operating: Operating Permit issued on July 3, 1990

2. Facility's function/operations: Drum storage and physical treatment for hazardous waste.

3. Waste generation processes conducted at the facility, past and present: Treatment of permitted wastes, excluding flammable and corrosive wastes, via a filter press for solidification and filtration.

4. Types of wastes generated, past and present: Wastes permitted for storage (see attachment 10).

5. Waste management practices and units, past and present: Primarily storage of wastes listed above. The facility consists of a 5855 square foot building, divided into three (3) bays, constructed for storage. The area has a capacity of 19,800 gallons in 360 - 55 gallon containers. Units include drum storage area, loading/unloading area, five (5) sumps (capacity of 928 gallons), filter press (2.6x10.25x3.6 feet) and the storm water treatment system (pond/surface impoundment).

6. Other pertinent information, including pollutant migration pathways and exposure potential (e.g., general hydrogeology, surface water drainage, drinking water sources, sensitive environmental areas): The facility is located next to two (2) Superfund sites (Helena Chemical and Stauffer Chemical). UW&T installed ground water monitoring wells prior to operation and when sampled the wells were not contaminated. In the interim of operation, the wells now show contamination which may be the result of remedial or post-operational activities at the adjacent Superfund sites. A background summary of the Helena and Stauffer sites is attached.

C. SWMU Identification

1. List all SWMUs identified and known information on chart (Attachment 1).

2. Locate and identify all SWMUs on facility map and included as Attachment 2 of checklist.

3. Enter known information about each SWMU on the forms provided (Attachment 3). One form for each SWMU.

4. Identify additional information required to complete RFA. Ground water monitoring data concerning ground water contamination and background data on the two (2) adjacent Superfund sites.

5. List any potential SWMUs or AOCs that should be thoroughly examined during the visual site inspection. Same as units listed in section B. 5.

6. Note releases or practices to be referred to other authorities. (i.e. unpermitted discharges to air or surface water, PCBs, UST) There may have been releases from the two (2) adjacent Superfund sites that in turn contaminated UW&T's wells.

D. VSI Preparation

1. Notify facility in writing of the date and agenda for the VSI.

2. Complete Site Safety Plan (Attachment 4).

3. Review significant data gaps and questions to be asked during the VSI.

contaminated soils industrial)

GEO Waste Facility Questions (Chambers Ind. Landfill)

landfill Valdosta (Okochobbee

1. Per your April 3, 1992 Pre-application meeting, does the facility intend to construct and operate one or more treatment tanks? (85 gal over pack (tank tot (DOT) non-RCRA tanks) 250 gallons pallat roll off 20 cubic yds)

2. Actual date operation began? Under construction permit or otherwise? June 1990

3. Does the site have a potable water well? (reference: letter dated July 14, 1988 from the National Fisheries)

4. Have you operated the filter press?

5. What is the extent of contamination from Superfund sites?

6. Site location map (8½ x 11).

*7. Storm H_2O Pond (retention) 1/3
Carbon + Sand filter on Sample taken 1 yr ago May's trace touene

8. Each sump is 928 gallon.
Dust is cleaned w/sump vac.

* Filter press capacity.
* Where wastes is going.
Sumps 8.5 x 3.5 x 4.5

UNIVERSAL WASTE & TRANSIT, INC.
2002 N. Orient Rd.
Tampa, Florida 33619
813-623-5302

Universal Waste & Transit, Inc. is a permitted TSDF. A copy of the Permit (No. H029-171163 issued July 3, 1990) is enclosed.

RFA INFORMATION REQUEST

1. Waste management practices are described in the Permit. Hazardous and non-regulated wastes are transported in and out of the facility by permitted transporters. Waste containers are loaded in and out of the facility directly from the truck to the facility and from the facility to the truck. Containers are inspected daily and closed except when transferring waste.

2. Types and volumes of wastes are described in the Permit, Attachment 10, and the 1990 Annual Report. A large portion of the waste managed is non-regulated (approximately 33%) or household waste (HHW) (approximately 25%).

3. A copy of the most recent biennial report will be available. Please note that the report is nearly four inches thick.

4. The facility is located approximately five miles east of downtown Tampa. The area is zoned heavy industrial. The facility is across Orient Road from the Stauffer superfund site and nearly adjacent to the Helena superfund site.

5. The drum storage area is described in the permit. It consists of a 5866 square foot building featuring a five-inch continuously poured 4000 psi concrete floor. The floor is coated with a sealant and polyurethane chemical resistant coating. There are five 928-gallon containment sumps. Although landban regulations prohibit storage greater than one year, most waste is manifested offsite for disposal in less than one month.

6. All hazardous wastes are stored and maneged in the warehouse (described above in Item 5). Non-regulated wastes (usually soils with trace petroleum) are occasionally stored in the truck-loading containment area. This area consists of a concrete and asphalt impervious walled surface, sloped to a containment trench. There have been no spills or releases.

7. Potential SWMU's:
   7.1 Facility Warehouse.
   7.2 Truck loading area (includes occasional non-regulated waste container and empty drum storage).
   7.3 Stormwater sump, filter, and percolation area.

   All areas began operations in 1990. The warehouse is used for container waste storage consisting of hazardous as well as non-regulated waste. The building is totally contained with virtually no potential for releases to the environment. The truck loading area (approximately 60 ft. x 100 ft.) is where waste is loaded and unloaded. The vehicles are able to back up directly to the warehouse so drums can be loaded and off-loaded directly to and from the vehicle and warehouse.

   All waste containers are closed except when transferring. All containers and containments are inspected daily.

8. There have been no spills or fires at the facility.

9. Waste oil mixed with hazardous waste is received from generators by permitted transporters and manifested out to permitted TSDF's for fuel blending (as hazardous waste).

10. SWFWMD indicates there are no recorded potable water wells within one quarter (1/4) mile of the facility. The facility utilizes bottled water for drinking and city water for toilets and hand sinks. The Tampa Bypass Canal is located about one half (1/2) mile from the facility.

11. The greater Tampa metro area has a population of approximately one million.

12. Map.

13. Map.

14. Aerial photos are not available.

15. No closed or abandoned units. Active units are located at the facility (2002 North Orient Road).

16. No former or existing tanks at the facility site.

17. All facility vehicle maintenance is subcontracted out to an offsite auto/truck maintenance shop.

18. All waste laboratory samples are held for approximately three months pending potential need for re-evaluation. The samples are then managed as wastes and bulked into waste drums and manifested to an offsite disposal facility. Rags and residues are emptied into satellite accumulation hazardous waste containers. These are bulked to drums and manifested to an offsite disposal facility.

19. Flow Diagram.

20. Sampling Results.

21. Maps.

22. Soil Borings.

23. NPDES - N/A

24. Air Pollution / Permits - N/A.

25. Start up of the facility was June, 1990. The site was vacant land prior to the beginning of construction of the facility.

26. Domestic refuses are emptied to a dumpster which is emptied and disposed of at Tampa/Hillsborough County Municipal Solid Waste.

27. Permit Copy.

Signature _____
John A. Taylor, Facility Manager

Date February 25, 1993

M. SWFWMD STORM WATER DISCHARGE PERMIT

BEST AVAILABLE COPY

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

EXEMPTION NOTICE
FOR NEW STORMWATER DISCHARGE FACILITY CONSTRUCTION
Chapter 17-25 Florida Administrative Code

A. PREFACE

E07840 R

Regulation of Stormwater Discharge is conducted by the District in accordance with Delegation Order No. 84-0059, signed by the Secretary of the Department of Environmental Regulation on February 3, 1984. This form is designed to supply the District with information pursuant to the provisions of Section 17-25.03(2), Florida Administrative Code, which lists certain types of stormwater discharge facilities that may be exempt from the permitting requirements of Chapter 17-25, Florida Administrative Code, provided the owner files notice and an engineer certifies to the District AT LEAST 30 DAYS PRIOR TO INITIATING CONSTRUCTION that the discharge facility will meet the criteria and other conditions described in Section 17-25.03(2), Florida Administrative Code.

B. INSTRUCTIONS

In order to ensure prompt and efficient processing of your notice, please provide the information listed below. Fill in all blanks and answer all questions in Parts I and III and the appropriate sections of Part II. Attach additional sheets and information if necessary.

PART I. GENERAL INFORMATION

1. Person(s) or entity that owns the discharge facility:

Name and Title: UNIVERSAL WASTE & TRANSFER

Address: 2212 Gulf Boulevard, Suite 17
St. Petersburg Beach, Florida 33706

Phone: 813) 360-9100

2. Stormwater Discharge Facility Identity and Location:

Source (Project) Name: UNIVERSAL WASTE

Source Location: Street: Orient Road - 9th Avenue North (Northwest corner)

City: Tampa County: Hillsborough

Section, Township, Range, Latitude: 27° 57' 45" Longitude: 82° 22' 21"

Name(s) of surface waters* of the state into which stormwater will be discharged: N/A

*(Please see Sections 403.031 and 403.817, F.S. and 17-4.02(17), F.A.C. for definition of surface water of the state.)

Please attach two (2) copies of an aerial photo or plat with sufficient detail to locate the subject property.

SWFWMD/DER Form 17-1.215(2)
Effective May 8, 1985

Page 1 of 3

12.9

Please submit two (2) copies of the following information about your stormwater discharge facility.

A. Brief narrative or other description of the proposed treatment facilities, the physical dimensions of the facilities, the drainage area boundaries, the total acres drained, the type(s) of development proposed, the amount of impervious acreage and the total acreage required for that development, and the potential of discharge to waters of the state.

B. Appropriate design analyses, calculations, engineering plans, drawings, specifications and other information to describe, verify and document that the proposed stormwater discharge facility qualifies for the exemption indicated in Part II.

1. Other DER or District permits for this project have been:
   A. Denied (date) N/A ______ DER/SWF 0784 0 11
   B. Issued (date) N/A ______ DER/SWF ______
   C. Pending (date submitted) N/A ______ DER/SWF ______

PART II. SPECIAL INFORMATION RELATIVE TO EXEMPTIONS REQUIRING A NOTICE BY SECTION 17-25.03(2), FLORIDA ADMINISTRATIVE CODE.

1. Please indicate the exemption category for which you qualify.

___ A. Facilities which discharge into a stormwater discharge facility which is permitted pursuant to Section 17-25.04, Florida Administrative Code, or exempt pursuant to Section 17-25.03, Florida Administrative Code, where the appropriate treatment criteria specified in this rule and applied to the permitted or exempt facility are not exceeded by the discharge. (Place a check mark in the space provided and proceed to section 2 of this part.)

__X__ B. Facilities which provide retention, or detention with filtration, of the runoff from the first one inch of rainfall or, as an option for projects or project subunits with drainage areas less than 100 acres, facilities which provide retention, or detention with filtration, of the first one-half inch of runoff. Facilities which directly discharge to Outstanding Florida Waters shall provide additional treatment according to Section 17-25.025(9), F.A.C. (Place a check mark in the space provided and proceed to section 3 of this part.)

___ C. Modification or reconstruction by a city, county, state agency, special district with drainage responsibility, or water management district of an existing stormwater management system which is not intended to serve new development, and which will not increase pollution loading, or change points of discharge in a manner that would adversely affect the designated uses of waters of the state. (Place a check mark in the space provided and proceed to section 3 of this part.)

___ D. Facilities of stormwater management systems that include a combination of best management practices including but not limited to retention basins, swales, pervious pavement, landscape or natural retention storage that will provide for the percolation of the runoff from a three-year one-hour design storm. (Place a check mark in the space provided and proceed to Section 3 of this Part).

2. Please attach a letter of consent signed by the owner or his agent certifying that you have obtained the owner's permission to discharge into the permitted or exempt stormwater discharge facility which you propose to utilize. (Complete section 3 of this part.)

RECEIVED JAN 18 1985 ... PROCESSING & RECORDS Brooksville, Florida

The undersigned agrees ... with the provisions of ... and operation may be ... undersigned and from ... for maintenance and c... been accepted.

...exemption listed above requires that a professional engineer certify that the criteria specified will be met by the facility as designed. You must complete Sections A and B in Part III and have your engineer complete Section C in order to qualify for the exemption. Please note that Chapter 17-25, F.A.C. requires a professional engineer to certify within 30 days after construction is completed that the new stormwater discharge facility has been built in substantial compliance with the appropriate exemption criteria (please see Part III, Section D of this form).

PART III

E07840 11

A. STATEMENT BY APPLICANT

The undersigned owner or authorized representative* of Universal Waste is fully aware that the statements made in this notice are true, correct and complete to the best of his or her knowledge and belief. The undersigned also agrees to retain the design engineer, or other professional engineer registered in Florida, to conduct on-site observations of construction.

Signature of the owner or authorized representative

Name and title (please type)

Date: 11/7/00

*Attach a letter of authorization.

B. STATEMENT BY PERSON RESPONSIBLE FOR MAINTENANCE

The undersigned agrees to maintain and operate the discharge facilities in such a manner as to comply with the provisions of Chapter 17-25, Florida Administrative Code. Responsibility for maintenance and operation may be transferred to another entity upon written notice to the District from the person designated and from the entity assuming responsibility, certifying that the transfer of responsibility for maintenance and operation is in compliance with Chapter 17-25, Florida Administrative Code, has been accepted.

Signature of the person responsible for maintenance (may be the applicant)

Name and title (please type)

Address

Date: 11/7/00

To Be Filled Out By Universal Waste

SFWMD/DER Form 17-1.213(2)
Effective May 6, 1985

Part III

C. STATEMENT BY PROFESSIONAL ENGINEER (where required)

This is to certify that the engineering features designed/examined by me and found to be in conformity to the treatment and disposal of stormwater designed in accordance with the exemption criteria Administrative Code. It is also stated that instructions for the maintenance and operation

Signature of Engineer

(Affix Seal)

SFWMD/DER Form 17-1.213(2)
Effective May 6, 1985

...in 30 days after construction, a
... built in substantial compliance
... in II of this form).

...07840 ...1

... is fully
... ...st ... of the
... engineers or other professional
... firm.

... Representative

... Phone: (813) 576-6700

...INTENANCE

...es in such a manner as to comply
... Responsibility for maintenance
...notice to the District from the
...of the transfer of responsibility
...orida Administrative Code, has

...is responsible for maintenance

...se Type)

18 1988

C. STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN FLORIDA

(Where required by Chapter 471, Florida Statutes).

This is to certify that the engineering features of this stormwater discharge facility have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of stormwater pollutants; I further certify that the facility has been designed in accordance with the exemption specifications required under Section 17-25.03(2), Florida Administrative Code. It is also stated that the undersigned has furnished the applicant with a set of instructions for the maintenance and operation of the stormwater discharge facility.

Signature of Engineer

Paul A. Bellhorn 11312
Name (Please Type) Florida Registration No.

E07840 ...

Halstead & Bellhorn, Inc.
Company Name

7031 68th Avenue North
Company Address

Pinellas Park, Florida 3...

(Affix Seal)

Date: 1/7/88 Telephone No. (813) 527-...

JAN 18 1988
...Brooksville, Florida

BEST AVAILABLE COPY

December 15, 1987

TO: Universal Waste and Transit, Inc.
7217 Gulf Blvd.
Suite 17
St. Petersburg Beach, Fl. 33706

RE: Permitting for Tampa Facility

To Whom it may concern:

This is to authorize Robert M. Wells of UNCO construction, Inc., 4590- 118th Ave. N., Clearwater, Fl., to act as 'The Owners Representative' in the permitting effort for a proposed facility to be located on Orient.Rd., Tampa, Fl.

President

Robert Bonner President

E07840

COPY

JAN 18 1988

Brooksville, Florida

Southwest Florida Water Management District

1961

[illegible] 1, 1988

[illegible] A. Bellhorn
[illegible] and Bellhorn, Incorporated
[illegible] [illegible] Avenue North
Pinellas Park, Florida 34665

Subject: Stormwater Noticed Exemption Sufficiency
Project Name: Universal Waste
Appl. No(s).: 207840
County: Hillsborough

Reference: Chapter 17-25, Florida Administrative Code
Section 17-25.03(2), Florida Administrative Code

Dear Mr. Bellhorn:

Your Exemption Notice for New Stormwater Discharge Facility Construction has been received and it appears to meet minimum preconstruction requirements. This is an authorization to proceed with construction.

However, this does not constitute a final determination that the facility is exempt from our permit requirements. Within 30 days after construction is completed, an engineer registered in Florida must submit the As-Built Certification form (copy enclosed) certifying that it qualifies for an exemption.

Every effort should be taken during construction to prevent erosion and transport or discharge of sediment to property other than your own.

If I may be of further assistance, please contact me at (813) 985-7481 extension 204.

Sincerely,

[illegible] Ali [illegible]
Tampa Permitting Division
Resource Regulation Department

rs/lpda
Enclosure: As-Built Certification by Professional Engineer (Exemption Notice)
cc: Universal Waste and Transit, 7217 Gulf Boulevard, Suite 7, St. Pete Beach, Florida 33706

NAME:
ADDRESS:
CITY: St. Petersburg
STATE ZIP: FL
PHONE:
SECTION(S):
TOWNSHIP:
RANGE:
ACTIVITY:
CODE:

N. UW&T DAILY INSPECTION LOGS

UNIVERSAL WASTE / TRANSIT

FACILITY INSPECTION LOG

DATE 2-15-93

TIME 7:00 PM

INSPECTORS TOM ORR

APPROVED BY DS

NORTH BAY 1

Sumps are free of liquid?	(yes)	no
Fire extinguishers are at proper pressure level?	(yes)	no
Waste drums are secure & not leaking? (If "no" see attached drum inspection log)	(yes)	no
Spill control box contains adequate supplies?	(yes)	no
Emergency eyewash & shower are operational?	(yes)	no
Foam tank & pipes in good condition	(yes)	no
Check for sufficient aisle space	(yes)	no
Check for telephone/intercom	(yes)	no

Record any unusual findings in the lines provided.

FIRE EXTINGUISHER MISSING 1-A
REPLACE + FIX
OK DS

CENTER BAY 1

Sump is free of liquid? If no reference	(yes)	no
Fire extinguishers are at the proper pressure level?	(yes)	no
Waste drums are secure and not leaking? (If "no" see attached drum inspection log)	(yes)	no
Spill control box contains adequate supplies	(yes)	no
Exhaust fans are operating properly	(yes)	no
LEL meter sensors need replacement (1 each)	yes	(no)
Check for sufficient aisle space	(yes)	no

Sumps are free of liquid?	(yes)	no
Fire extinguishers are at proper pressure level?	(yes)	no
Waste drums are secure & not leaking? (If "no" see attached drum inspection log)	(yes)	no
Spill control box contains adequate supplies?	(yes)	no
Emergency eye wash is operational?	(yes)	no
Compressor is in good condition?	(yes)	no
Check for sufficient aisle space	(yes)	no
Is telephone/intercom working?	(yes)	no

Record any unusual findings in the lines provided

MISSING LABLE POISION - REPLACE
OK DS

Return the completed form to the facility manager

2-15-93 Date

TOM ORR Inspectors Name

SUMP STATUS OK

North Bay-1

Sump #1 OK

Sump #2

Center Bay-1

Sump #3

South Bay-1

Sump #1

Sump #2

Truck Well

Remedial Action Taken (If Required)

NONE

Final Disposal of collected liquids

Facility- NA

Amount-

Manifest-

UNIVERSAL WASTE & TRANSIT

FACILITY INSPECTION LOG

DATE: 2-16-93

TIME: 8:30

INSPECTOR: TOM

APPROVED BY:

NORTH BAY 1

1.	Sumps are free of liquid?	yes no
2.	Fire extinguishers are at proper pressure level?	yes no
3.	Waste drums are secure & not leaking? (If "no" see attached Drum Inspection Log)	yes no
4.	Spill Control Box contains adequate supplies?	yes no
5.	Emergency eyewash & shower are operational?	yes no
6.	Foam tank & pipes in good condition	yes no
7.	Check for sufficient aisle space	yes no
8.	Check for telephone/intercom	yes no

Record any unusual findings in the lines provided.

2 DRUMS LEAKING TRL
FIX LEAK BUNG'S GASKETS

OK DS

CENTER BAY 2

1.	Sump is free of liquid? If no reference	yes no
2.	Fire extinguishers are at the proper pressure level?	yes
3.	Waste drums are secure and not leaking? (If "no" see attached Drum Inspection log)	yes no
4.	Spill control box contains adequate supplies	yes no
5.	Exhaust fans are operating properly	yes no
6.	LEL Meter sensors need replacement (2 each)	yes no
	Check for sufficient aisle space	yes no

SOUTH BAY 3

1.	Sumps are free of liquid?	yes no
2.	Fire Extinguishers are in at proper pressure level?	yes no
3.	Waste drums are secure & not leaking? (If "no" see attached Drum Inspection Log)	yes no
4.	Spill Control Box contains adequate supplies?	yes no
5.	Emergency eye wash is operational?	yes no
6.	Compressor is in good condition?	yes no
7.	Check for sufficient aisle space	yes no
8.	Is telephone/intercom working?	yes no

Record any unusual findings in the lines provided

LABELS MISSING REPLACE TOM

OK DS

Return the completed form to the facility manager

2-16-93
Date

TOM
Inspectors Name

SUMP STATUS

North Bay-1

Sump #1 DRY

Sump #2

Center Bay-2

Sump #3

South Bay-3

Sump #4

Sump #5

Truck Well DRY

Remedial Action Taken (If Required)

Final Disposal of collected liquids:

Facility- NS

Amount-

Manifest-

UNIVERSAL WASTE / TRANSIT

FACILITY INSPECTION LOG

Date: 2-17-93

Time: 10:00

Inspector: TOM ORR DS

Bay/Area:

NORTH BAY 1

Sumps are free of liquid?	yes no
Fire extinguishers are at proper pressure level?	yes no
Waste drums are secure & not leaking? (If "no" see attached Drum Inspection Log)	yes no
Spill Control Box contains adequate supplies?	yes no
Emergency Eyewash & shower are operational?	yes no
Foam tank & pipes in good condition	yes no
Check for sufficient aisle space	yes no
Check for telephone/intercom	yes no

Record any unusual findings in the lines provided.

DRUMS OUT LINE

CENTER BAY 1

Sump is free of liquid/ if no reference	yes no
Fire extinguishers are at the proper pressure level?	yes no
Waste drums are secure and not leaking? (If "no" see attached Drum Inspection log)	yes no
Spill control box contains adequate supplies	yes no
Exhaust fans are operating properly	yes no
LEL Meter sensors need replacement (2 each)	yes no
...t...t aisle space	yes no

1. Sumps are free of liquid?	yes no
2. Fire extinguishers are in at proper pressure level?	yes no
3. Waste drums are secure & not leaking? (If "no" see attached Drum Inspection Log)	yes no
4. Spill Control Box contains adequate supplies?	yes no
5. Emergency eye wash is operational?	yes no
6. Compressor is in good condition?	yes no
7. Check for sufficient aisle space	yes no
8. Is telephone/intercom working?	yes no

Record any unusual findings in the lines provided

DRUMS IN WRONG BAYS

Return the completed form to the facility manager

2-17-93
Date

TOM ORR
Inspectors Name

SUMP STATUS

North Bay-1

Sump #1 DRY

Sump #2

Center Bay-2

Sump #3

South Bay-3

Sump #4

Sump #5

Truck Well RAIN WATER

Remedial Action Taken (If required)

moved DRUMS to correct area OK DS

pumped truck will dry

Final Disposal of collected liquids

Facility-

Amount-

Manifest-

UNIVERSAL WASTE / TRANSIT

FACILITY INSPECTION LOG

DATE: 2/18/93

TIME: 5:30 P.m

INSPECTOR: G.V.

APPROVED BY: DS

NORTH BAY 1

- Sumps are free of liquid? (yes) no
- Fire extinguishers are at proper pressure level? (yes) no
- Waste drums are secure & not leaking? (If "no" see attached drum inspection log) (yes) no
- Spill control box contains adequate supplies? (yes) no
- Emergency eyewash & shower are operational? (yes) no
- Foam tank & pipes in good condition (yes) no
- Check for sufficient aisle space (yes) no
- Check for telephone/intercom (yes) no

Record any unusual findings in the lines provided.

BAY 2 flamm BAY 5 gal HAS NO LABEL
you HAVE bag of VIKM that shud Not be
in The flamm bay. Corrosiv Drum NO
LABEL and NO Description of Drum BAY 1
NON Regin corrosive row.

CENTER BAY 1

- Sump is free of liquid? If no reference (yes) no
- Fire extinguishers are at the proper pressure level? (yes) no
- Waste drums are secure and not leaking? (If "no" see attached Drum Inspection log) (yes) no
- Spill control box contains adequate supplies (yes) no
- Exhaust fans are operating properly (yes) no
- Door sensors need replacement (1 each) yes (no)
- Sufficient aisle space yes (no)

SOUTH BAY 3

1. Sumps are free of liquid? (yes) no
2. Fire extinguishers are at proper pressure level? (yes) no
3. Waste drums are secure & not leaking? (If "no" see attached Drum Inspection Log) (yes) no
4. Spill control box contains adequate supplies? (yes) no
5. Emergency eye wash is operational? (yes) no
6. Compressor is in good condition? (yes) no
7. Check for sufficient aisle space (yes) no
8. Is telephone/intercom working? (yes) no

Record any unusual findings in the lines provided

South Locker has NOT adequate Supplies.

Return the completed form to the facility manager

Date: 2-18-93

Inspectors Name: Lupe Valdez

SUMP STATUS

North Bay-1
Sump #1 OK
Sump #2

Center Bay-2
Sump #3

South Bay-3
Sump #1
Sump #5

Truck Wall

Remedial Action Taken (If Required)

moved Drums to correct areas
labeled corrosive drum
restocked PPE lockers

OK
DS

Final Disposal of collected liquids:

Facility-

Amount-

Manifest-

UNIVERSAL WASTE / TRANSIT

FACILITY INSPECTION-LOG

2/19/93 (D.S.)
16:15

TIME: J. Taylor

IN BY: ______

NORTH BAY 1

Sumps are free of liquid?	(yes)	no
Fire extinguishers are at proper pressure level?	(yes)	no
Waste drums are secure & not leaking? (If "no" see attached drum inspection log)	(yes)	no
Spill control box contains adequate supplies?	(yes)	no
Emergency eyewash & shower are operational?	(yes)	no
Foam tank & pipes in good condition	(yes)	no
Check for sufficient aisle space	(yes)	no
Check for telephone/intercom	(yes)	no

Record any unusual findings in the lines provided:

Checked DOT, HW, & NR labels OK
Tracking # OK, containers
dated, closed & good condition
(DOT shippable)

CENTER BAY 1

Sump is free of liquid if no reference	(yes)	no
Fire extinguishers are at the proper pressure level?	(yes)	no
Waste drums are secure and not leaking? (If "no" see attached drum inspection log)	(yes)	no
Spill control box contains adequate supplies	(yes)	no
Exhaust fans are operating properly	yes	(no)
Water sensors need replacement (1 each)	(yes)	no
... aisle space		

1.	Sumps are free of liquid?	(yes)	no
2.	Fire extinguishers are in at proper pressure level?	(yes)	no
3.	Waste drums are secure & not leaking? (If "no" see attached drum inspection log)	(yes)	no
4.	Spill control box contains adequate supplies?	(yes)	no
5.	Emergency eye wash is operational?	(yes)	no
6.	Compressor is in good condition?	(yes)	no
7.	Check for sufficient aisle space	(yes)	no
8.	Is telephone/intercom working?		

Record any unusual findings in the lines provided

Same

Return the completed form to the facility manager

J. Taylor
Inspectors Name

Date

UNIT STATUS

North Bay-1
Sump #1 OK
Sump #2 OK

Center Bay-2
Sump #1 OK

South Bay-3
Sump #1 OK
Sump #2 OK

Truck Well OK

Remedial Action Taken (If Required)

Floors cleaned

Final Disposal of collected liquids

Facility- N/A
Amount- N/A
Manifest- N/A

O. HELENA CHEMICAL AND STAUFFER CHEMICAL

Helena Chem
Risk Assess
Prelim Health Asse

PRELIMINARY PUBLIC HEALTH ASSESSMENT

HELENA CHEMICAL COMPANY

TAMPA, HILLSBOROUGH COUNTY, FLORIDA

CERCLIS NO. FLD053502696

Date of first draft January 12, 1993

Current draft date January 28, 1993

Prepared by

The Florida Department of Health and Rehabilitative Services

Under Cooperative Agreement With

The Agency for Toxic Substances and Disease Registry
U.S. Public Health Service
Department of Health and Human Services

TABLE OF CONTENTS

SUMMARY

The Helena Chemical Company Superfund site (Helena) is an active facility that formulates, stores, repackages, and distributes agricultural chemicals. Prior to 1981, Helena also manufactured (synthesized) pesticides at this site. Helena is in a mixed industrial/commercial/residential section of east Tampa, Florida. Past spills and waste disposal practices have contaminated on-site soil, sediments, and ground water with metals and pesticides. Testing has been inadequate, however, to determine the extent of off-site sediment, fish, and ground water contamination. We were unable to find any community health concerns regarding this site.

Due to the lack of adequate sampling data for all of the contaminated media, we categorize this site as an indeterminate public health hazard. Long-term ingestion of toxaphene contaminated soil at this site by Helena workers, however, is a completed exposure pathway that may result in low to moderate increased risk of cancer. Incidental ingestion of off-site sediment by children, ingestion of contaminated fish from the Tampa Bypass Canal, and ingestion of contaminated off-site Floridan aquifer ground water are potential exposure pathways. Sediment, fish, and ground water quality data are inadequate, however, to assess the public health threat. Although nearby private wells are not currently contaminated, long-term ingestion of Floridan aquifer ground water at the maximum arsenic concentration detected could result in a low to moderate increased risk of skin cancer.

We recommend Helena post hazardous waste warning signs and reduce worker exposure to toxaphene-contaminated surface soil. We recommend Helena collect and analyze at least four additional off-site sediment samples. If these samples indicate pesticide contamination has reached the Tampa Bypass Canal, we recommend Helena collect and analyze 5-10 fish samples from the canal. We recommend that the Florida Department of Environmental Regulation add pesticides to the list of contaminants Helena must analyze for in the surficial aquifer. We recommend Helena install and sample at least four upper-Floridan aquifer monitor wells and determine the site specific ground water flow direction. We also recommend that nearby private wells be tested annually for site-related contamination. The Agency for Toxic Substances Disease and Registry's (ATSDR) Health Activities Recommendation Panel has evaluated the data in this preliminary public health assessment and determined that the appropriate occupational health agency should consider worker education and medical evaluation/monitoring. HARP also determined that the ATSDR Division of Toxicology should consider substance-specific research for those site contaminants in completed exposure pathways that lack sufficient toxicological data.

The Hillsborough County Public Health Unit will sample and analyze the private wells within 0.25 mile hydraulically downgradient of Helena. ATSDR will recommend to the Occupational Safety and Health Administration or the National Institute for Occupational Safety and Health that they consider a medical evaluation and monitoring of Helena workers. The Florida Department of Health and Rehabilitative Services will also review additional site data as they become available.

BACKGROUND

In this preliminary public health assessment, the Florida Department of Health and Rehabilitative Services (Florida HRS), in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR), evaluates the public health significance of the Helena Chemical Company Superfund site. Specifically, Florida HRS determines whether health effects are possible and recommends actions to reduce or prevent them. ATSDR is a federal agency within the U.S. Department of Health and Human Services and is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to conduct public health assessments at hazardous waste sites.

A. Site Description and History

Helena Chemical Company (Helena) is an active facility in Tampa, Florida that formulates, stores, repackages, and distributes agricultural chemicals. Prior to 1981, Helena also manufactured (synthesized) pesticides at this site. In 1984 the Florida Department of Environmental Regulation (DER) inspected Helena and required quarterly monitoring of the surficial aquifer. From 1988 to 1990, the Environmental Protection Agency (EPA) investigated this site and found pesticide contamination in the on-site soil, sediments, and surficial aquifer. Based on the potential for human exposure via ingestion of contaminated ground water, EPA proposed this site to the Superfund National Priorities List (NPL) in February 1992 and finalized the listing in October 1992. EPA is planning a remedial investigation and feasibility study. Neither Helena or EPA have undertaken any site cleanup. Florida HRS, in cooperation with ATSDR, is preparing this public health assessment as required by the Superfund Amendments and Reauthorization Act of 1986 (SARA). SARA requires ATSDR to assess the public health threat at Superfund sites within a year of their proposal to the Superfund NPL. ATSDR has no previous involvement at this site.

Helena is at 2405 North 71st Street in Tampa, Hillsborough County, Florida, approximately 0.5 mile west of the Tampa Bypass Canal (Figures 1-4, Appendix A). It is in the Orient Park area on the east side of Tampa. The office, laboratory, and warehouses are on eight acres bounded on the north by 14th Ave., on the east by Orient Rd., on the south by the CSX railroad line, and on the west by 71st St. Helena also owns a vacant three-acre lot on 71st St., west of the main facility. Access to both of these lots is limited by a six-foot high chain-link fence topped with barbed wire. Although there is no on-site security, the gates are locked at night. The operating facility consists of an office, laboratory, liquid processing and repackaging warehouse, product storage warehouse, and several above-ground storage tanks. The site is relatively flat with a gradual slope to the southeast. The center of the site is paved while the rest is grass covered. A concrete ditch conveys stormwater run-off from the site to a 10,400 square foot, unlined retention pond. Overflow from this retention pond is east into a 0.5 mile stormwater run-off path along the railroad track which empties into the Tampa Bypass Canal.

From 1929 to 1967, the Flag Sulphur Company produced sulfur and other agricultural chemicals at this site. In 1967, Helena purchased this site and began manufacturing (synthesizing) and distributing agricultural chemicals, including a number of pesticides. Table 1 lists the pesticides and other chemicals Helena produced or stored at this site (EPA 1991a). In 1979, Helena reported using 6,000 gallons of xylene and producing 66,000 gallons of liquid pesticides and 83,000 pounds of plant fertilizer per month (Bond 1979). From 1974 to 1981, Helena used a buried three-tank waste-water system to treat spills and run-off. In 1981 Helena ceased production of pesticides but continues to formulate, store, repackage, and distribute agricultural chemicals. Sometime between 1984 and 1988, Helena abandoned the three-tank waster-water treatment system. Stormwater run-off from the site is now collected in the unlined retention pond.

Table 1. Chemicals Produced, Stored, or Used by Helena

Acaricides - chlorobenzilate and others
Herbicides - dinoseb and the dimethylamine salt of 2,4-D
Insecticidal Petroleum Oil
Nematicides - 1,2-dibromo-3-chloropropane
Organochlorine and Organophosphate Pesticides - atrazine, gamma-BHC, paraquat, tebuthiuron, glyphosate, oryzalin, toxaphene, parathion, methylparathion, mevinphos, naled, malathion, EPN, dimethoate, dimpylate, endrin, and chlordane
Solvent and Carriers - xylenes and diesel fuel oil
Liquid Fertilizer Components - chelating compounds, ferrous sulfate, manganese sulfate, magnesium sulfate, nitric acid, phosphoric acid, sodium hydroxide, and zinc sulfate

Ground water below this site is contained in two aquifers separated by a semipermeable layer of clay. The surficial aquifer is made up of about 11 feet of sand. The depth to water in this aquifer is usually about 2 to 7 feet below land surface, depending on the amount of rainfall. About once a year, during periods of extended heavy rainfall, however, the aquifer may actually become saturated and cause flooding. On-site water level measurements by Florida DER (1990) and measurements at the nearby Stauffer Chemical Company site by their consultants (ERM 1991), indicate that ground water in the surficial aquifer flows to the south, southeast, and east. This aquifer is not used as a source of irrigation or drinking water due to its limited yield.

The surficial aquifer is separated from the deeper Floridan aquifer by about 15 feet of clay. The thickness of this clay and its ability to impede the flow of water between these two aquifers may vary across the site. Below this clay layer, water is contained in the Floridan aquifer. In Hillsborough County, the Floridan aquifer is made up of about 1,200 feet of porous limestone and is the primary source for drinking water. It is the source for the 500 foot deep production well at Helena and for nearby private wells. Regionally, ground water in this aquifer flows to the southwest toward McKay and Hillsborough Bays. The direction of ground water flow in the Floridan aquifer below the site, however, has not been determined. Consultants for nearby Stauffer Chemical

Company found that flow in the Floridan aquifer under their site is to the southeast toward the Tampa Bypass Canal (ERM 1991).

B. Site Visit

Randy Merchant of Florida HRS, the EPA Region IV remedial project manager, and the Hillsborough County environmental health director visited the site on September 10, 1992. They met with the plant manager and Helena's environmental consultants. They discussed past and current operations and toured the site. The plant manager explained that in the past, runoff was directed to three "treatment tanks" and an unlined retention pond in the southeast corner of the site. Between 1984 and 1988, Helena abandoned these "treatment tanks" and now collects all runoff in the retention pond. Overflow from this retention pond flows under Orient Park Rd. along the railroad track east toward the Tampa Bypass Canal. No environmental samples were collected during this visit. Mr. Merchant spent two hours on the site and made the following observations:

* Helena Chemical Company is an active facility.

* The site is surrounded by a six-foot high chain-link fence.

* There was no evidence of site trespass.

* Stormwater run-off appears to be toward a retention pond in the southeast corner of the property.

Mr. Merchant drove through the mixed industrial/commercial/residential area around this site. The nearest house is about 300 feet north of the site. The southern boundary of the Orient Park residential subdivision is about 600 feet north of the site. The Stauffer Chemical Co. Superfund site is about 50 feet southeast of Helena. Wheelblast, Inc., a sand blasting facility, is south of Helena across the railroad tracks. The area west of Helena is mixed industrial/commercial. Mr. Merchant observed people fishing from the bridge over the Tampa Bypass Canal 0.5 mile east of Helena.

On September 11, 1992, Mr. Merchant met with the Hillsborough County environmental health director and reviewed the Helena Chemical Company file. The Hillsborough County environmental health director estimates that most residents near the site are on municipal water supply. He did not know of any community health concerns about Helena Chemical Co. Mr. Merchant also reviewed the Florida DER Helena Chemical Co. file and met with the hazardous waste section administrator who was also unaware of any community health concerns.

C. Demographics, Land Use, and Natural Resource Use

Demographics

According to 1990 census data, about 5,600 people live within 1.5 miles of this site, mostly in the Orient Park subdivision and along Broadway Avenue. These residents are mostly white (77%) with a black (15%) and Hispanic (8%) minority. The population is relatively young: the median age is 31 and 17% are under 10 years old. Most (57%) of the 2,200 homes in this area are owner occupied. The median yearly family income in this area is about $22,000 (BOC 1992).

Land Use

The area within about 1.5 miles of the site is mostly industrial/commercial/residential. The Stauffer Chemical Co. Superfund site is 50 feet southeast of Helena. The 62nd St. Landfill and Kassouf-Kimerling Superfund sites are about 2 miles west of Helena. A steel recycling facility, a secondary lead smelter, and the Uceto Railroad Yard are all within 1.5 miles of Helena. The nearest house is about 300 feet north of the site. The Kenly Elementary School and two day-care facilities are in the Orient Park subdivision about 0.5 mile northwest of the site.

Natural Resource Use

The Tampa Bypass Canal is located 0.5 mile east of the site. It discharges into McKay Bay 2.5 miles downstream. Florida DER classifies the Tampa Bypass Canal and McKay Bay as Class-III surface waters (recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife). Although the canal and McKay Bay are not drinking water sources and commercial fishing is prohibited, individuals do catch and eat fish from both.

Ground water from the Floridan aquifer is the source of drinking water for most of Hillsborough County. The surficial aquifer is not used as a source of irrigation or drinking water due to its limited yield. The four supply wells for Seaboard Utilities, which serves 2600 connections, are 1.75 miles south-southeast of Helena. The two supply wells for USA Utilities, which serves 851 connections, are 2.25 miles north-northwest of Helena. The supply wells for the Shady Oak Trailer Park (1.25 miles, 40 trailers), the Paradise Mobile Home Park (2.25 miles, 307 trailers), and the Riverbreeze Motor Home Park (2.35 miles, 19 trailers) are all northeast of Helena (EPA 1991c).

Most of the houses in this area are served by a municipal water supply. An unknown number of homes, however, still use wells in the upper Floridan aquifer for drinking water, cooking, bathing, and irrigation. The nearest private well is at 2512 Orient Rd., about 300 feet north of the site. A second is located at 2428 N. 70th St., about 1000 feet west of the site.

There is little agriculture or hunting in this area.

D. Health Outcome Data

We did not evaluate health outcome data for this site. See the Public Health Implications, Community Health Concerns Evaluation section for details.

COMMUNITY HEALTH CONCERNS

We contacted the Hillsborough County Public Health Unit, the Hillsborough County Environmental Protection Commission, the Florida DER Southwest District Office, and EPA to find community health concerns. None of these agencies were aware of any health concerns regarding this site. We contacted one resident who is active with the 62nd St. Landfill Superfund site 2 miles west of Helena. She said area residents are concerned about all local industrial facilities but could not specifically name any health concerns regarding Helena.

ENVIRONMENTAL CONTAMINATION AND OTHER HAZARDS

In this section we review the environmental data, evaluate its adequacy, select contaminants of concern, and list the maximum concentration and frequency of detection of these contaminants. We then compare the maximum concentrations to background levels and to standard comparison values. We selected contaminants of concern based on the following factors:

1. Concentrations of contaminants on and off the site.
2. Field data quality, laboratory data quality, and sample design.
3. Community health concerns.
4. Comparison of on-site and off-site concentrations with the following health assessment comparison values:
    a. Environmental Media Evaluation Guide (EMEG): derived from ATSDR's Minimal Risk Level (MRL), the estimate of daily human exposure to a chemical likely to be without an appreciable risk of adverse effects, generally for a period of a year or longer.
    b. Reference Dose Media Evaluation Guide (RMEG): derived from EPA's Reference Dose (RfD), the estimate of daily human exposure to a chemical likely to be without an appreciable risk of adverse effects, generally for a period of a year or longer.
    c. Lifetime Health Advisory (LTHA): EPA's estimate of the concentration of a contaminant in drinking water at which non-cancerous adverse health effects would not be expected to occur over a lifetime of exposure. LTHAs provide a safety margin to protect sensitive members of the population.

d. Maximum Contaminant Level (MCL): the contaminant concentration that EPA considers protective of public health over a 70 year lifetime at an exposure rate of 2 liters of water per day. MCLs are regulatory concentrations.
e. Cancer Risk Evaluation Guide (CREG): calculated from EPA's cancer slope factors, the contaminant concentration estimated to result in one excess cancer in a million persons exposed over a lifetime.

Based on the above criteria, we selected the following chemicals as contaminants of concern:

Arsenic
alpha-, beta-, and delta-BHC
gamma-BHC
DDT, DDE, and DDD
Dieldrin
Heptachlor
Toxaphene

Alpha-, beta-, and delta-BHC (benzene hexachloride) are also known as alpha-, beta-, and delta-HCH (hexachlorocyclohexane). Gamma-BHC is also known by its trade name, Lindane.

Identification of a contaminant of concern in this section does not necessarily mean that exposure will cause adverse health effects. When selected as a contaminant of concern in one medium, we also reported that contaminant in all other media. We evaluate these contaminants in subsequent sections and determine whether exposure has public health significance.

We eliminated from further consideration 57 chemicals found in the air, soil, surface water, sediments, and ground water at concentrations below standard comparison values (Table 2). Twenty-nine other chemicals, however, have no standard comparison values and the human health data are insufficient to determine their public health significance (Table 3).

Table 2. Site-Related Chemicals At Concentrations Below Standard Comparison Values

1,1-dichloroethane
1,2-dichlorobenzene
1,2-dichloroethene
1,2,4-trichlorobenzene
2,4-D
3-methyl phenol
4-methyl phenol
aldrin
atrazine
barium
benzo(a)anthracene
benzo(a)pyrene
benzo(b/k)fluoranthene
benzo(g,h,i)perylene
beryllium
bromacil
cadmium
carbon disulfide
carbophenthion
chlordane
chlorobenzilate
chromium
chrysene
copper
cyanide
di(2-ethylhexyl)phthalate
di(n-butyl)phthalate
diazinon
dibrom (Naled)
endosulfan
endosulfan sulfate
endrin
EPN
ethion
ethyl benzene
fluoranthene
fluorene
heptachlor epoxide
indeno(1,2,3-cd)pyrene
iron
lead
malathion
manganese
mercury
methyl naphthalene
methyl parathion
naphthalene
nickel
parathion
phenanthrene
phenol
pyrene
silvex (2,4,5-TP)
toluene
vanadium
xylenes
zinc

Table 3. Site-Related Chemicals With Insufficient Toxicological Data

aminobenzene sulfonamide
benzene propanoic acid
benzene sulfonamide
bis(chlorophenyl)methanone
camphor
chlordene
chloro(chloromethyl)thiobenzene
chlorobenzenethiol
di-n-octylphthalate
diazanone
diethylbenzene
diethylmethyl ethane diamine
dimethyl phenyl benzene acetamide
ethyl thiocyclohexane
ethylhexanoic acid
ethylhexanol
hexadecanoic acid
hexanoic acid
iodomethyl benzene
methyl(methylethyl)benzene
methylethyl benzene
nonachlor, cis and trans
phosdrin
terpin hydrate
tetradifon
trimethyl cyclohexane methanol
trimethyl benzene

To find industrial facilities that could add to the contamination near the Helena site, we searched the 1987-1990 EPA Toxic Release Inventory (TRI) data base. EPA developed TRI from the chemical release information (air, water, and soil) provided by certain industries. Thirteen facilities in the 33619 ZIP code reported releases from 1987-1990. This ZIP code covers a rectangular area about 2 miles west, north and east and 5 miles south of Helena (Figure 5, Appendix A). None of these facilities reported releases of contaminants that are of concern at Helena.

In this assessment, the contamination that exists on the site will be discussed first, separately from the contamination that occurs off the site.

A. On-Site Contamination

For the purposes of this evaluation, "on-site" will be defined as the Helena Chemical Company property boundaries (Figure 3 and 4, Appendix A). This definition includes

the eight acre production facility east of 71st St. and the three acre vacant lot west of 71st St. We compiled data in this subsection from EPA and Florida DER reports.

On-Site Air

On October 13 and 14, 1988, EPA collected six on-site air samples (Figure 6, Appendix A). EPA did not specify the sampling height. The wind was light and from the east-northeast. Two samples (HC-Air-01 and HC-Air-04) were from background locations. Since pesticides make up the bulk the chemicals used at this site, EPA only analyzed these air samples for pesticides. As shown in Table 4, EPA did not detect any pesticides in the air at this site (EPA 1990). Detection limits were not reported. They did detect one unidentified compound at trace concentrations. For this preliminary assessment, these air samples adequately characterize the ambient air quality.

Table 4. Maximum Concentrations in On-Site Air

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value	
				(µg/L)	Source
Arsenic	NA	---	NA	---	---
alpha-, beta-, and delta-BHC	ND	0/4	ND	---	---
gamma-BHC	ND	0/4	ND	---	---
DDT, DDE, DDD	ND	0/4	ND	---	---
Dieldrin	ND	0/4	ND	---	---
Heptachlor	ND	0/4	ND	---	---
Toxaphene	ND	0/4	ND	---	---

NA-not analyzed; ND-not detected; µg/L-micrograms per liter
Source: EPA 1990

On-Site Surface Soil

Between 1988 and 1990, EPA consultants collected "surface" soil samples from this site (Figures 6 and 7, Appendix A). They did not give the precise depth of these soil samples, only describing them as "surface". We consider two samples, both designated HC-SS-01, as representative of background. EPA found elevated concentrations of

arsenic, DDT, DDE, DDD, and toxaphene in the surface soil (EPA 1990, 1991a). The highest toxaphene concentrations were near the three defunct wastewater holding tanks. Table 5 lists the maximum concentrations for the selected contaminants of concern. For this preliminary assessment, these surface soil samples adequately characterize the on-site surface soil quality.

Table 5. Maximum Concentrations in On-Site Surface Soil
(Depth Not Specified)

Contaminants of Concern	Maximum Concentration (mg/kg)	Total # positive / Total # samples	Background Concentration (mg/kg)	Comparison Value	
				(mg/kg)	Source
Arsenic	10.0	2/6	ND	0.4	CREG
alpha-, beta-, and delta-BHC	ND	0/24	ND	----	----
gamma-BHC	ND	0/8	ND	----	----
DDT, DDE, DDD	100	21/30	0.89	2	CREG
Dieldrin	1.8	1/14	ND	0.04	CREG
Heptachlor	ND	0/8	ND	----	----
Toxaphene	3,900	9/12	15	0.6	CREG

ND-not detected; mg/kg-milligrams per kilogram
Sources: EPA 1990, 1991a

On-Site Subsurface Soil

Between 1989 and 1990, EPA consultants collected on-site subsurface soil samples between 3 and 5 feet deep (Figure 7, Appendix A). We consider sample HC-SB-01, as representative of background. EPA found elevated concentrations of arsenic, DDT, DDE, and DDD in the subsurface soil (EPA 1991a). Table 6 lists the maximum concentrations for the selected contaminants of concern. For this preliminary assessment, these subsurface soil samples adequately characterize the on-site subsurface soil quality.

Table 6. Maximum Concentrations in On-Site Subsurface Soil
(3 to 5 Feet Deep)

Contaminants of Concern	Maximum Concentration (mg/kg)	Total # positive / Total # samples	Background Concentration (mg/kg)	Comparison Value (mg/kg)	Comparison Value Source
Arsenic	2.3	1/5	NA	0.4	CREG
alpha-, beta-, and delta-BHC	0.018	2/10	ND	0.4	CREG
gamma-BHC	NA	----	NA	----	----
DDT, DDE, DDD	0.33	2/15	ND	2.1	CREG
Dieldrin	0.14	2/5	ND	0.04	CREG
Heptachlor	NA	----	NA	----	----
Toxaphene	ND	0/5	ND	----	----

NA-not analyzed; ND-not detected; mg/kg-milligrams per kilogram
Source: EPA 1991a

On-Site Retention Pond Water

In 1984, Florida DER consultants collected one surface water grab sample from the on-site retention pond (Figure 8, Appendix A) (DER 1984). Between 1988 and 1990, EPA consultants collected two more grab samples from this pond (Figures 9 and 10, Appendix A) (EPA 1990, 1991a). There are no other on-site surface water bodies for comparison. EPA found low levels of beta-BHC in one pond water sample. Table 7 lists the maximum concentration for the selected contaminants of concern.

Due to its small size, shallow depth, variable water levels, and contaminated sediments, it is unlikely this retention pond contains fish large enough for human consumption. If it did, human fish consumption is unlikely since site access is strictly limited.

Three water samples are inadequate to characterize the extent of contamination in this retention pond. Additional water samples, however, are only representative of recent site activities since the retention pond does not typically retain stormwater for very long. Also the water quality in this pond changes depending on site activities and the amount of stormwater run-off. Exposure to contaminated ground water is more likely than exposure to the pond water. Therefore, we do not recommend additional surface water samples, but do recommend continued sampling of the surficial aquifer monitor wells.

Table 7. Maximum Concentrations in On-Site Retention Pond Water

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value (µg/L)	Comparison Value Source
Arsenic	NA	---	NA	----	----
alpha-, beta-, and delta-BHC	0.58	1/2	NA	0.02	CREG
gamma-BHC	NA	---	NA	----	----
DDT, DDE, DDD	ND	0/3	NA	----	----
Dieldrin	ND	0/1	NA	----	----
Heptachlor	ND	0/1	NA	----	----
Toxaphene	ND	0/1	NA	----	----

NA-not analyzed; ND-not detected; µg/L-micrograms per liter
Sources: DER 1984; EPA 1990, 1991a

On-Site Sediments

In 1984, Florida DER consultants collected one sediment grab sample from the on-site retention pond (Figure 8, Appendix A) (DER 1984). Between 1988 and 1990, EPA consultants collected three more sediment grab samples from the on-site retention pond (Figures 9 and 10, Appendix A)(EPA 1990, 1991a). Florida DER and EPA found elevated levels of arsenic, DDT, DDE, DDD, and toxaphene in the on-site pond sediments. Table 8 lists the maximum concentration for the selected contaminants of concern. There are no other on-site sediments for comparison.

Four sediment samples are inadequate to determine the extent of sediment contamination. The lack of adequate sediment samples from the retention pond is a significant data gap. We recommend two more sediment samples be collected and analyzed for solvents, metals, and pesticides.

Table 9. Maximum Concentrations in On-Site Surficial Aquifer Ground Water (2 to 7 Feet Deep)

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value (µg/L)	Comparison Value Source
Arsenic	100	3/8	ND	0.02	CREG
alpha-, beta-, and delta-BHC	1.3	8/35	ND	0.02	CREG
gamma-BHC	11	1/11	ND	0.2	LTHA
DDT, DDE, DDD	0.72	1/19	ND	0.2	CREG
Dieldrin	0.78	2/11	ND	0.002	CREG
Heptachlor	0.12	1/11	ND	0.008	CREG
Toxaphene	14	1/11	ND	0.03	CREG

NA-not analyzed; ND-not detected; µg/L-micrograms per liter
Sources: DER 1988; EPA 1990, 1991a

On-Site Floridan Aquifer Groundwater

In 1984, Florida DER consultants sampled ground water from the Floridan aquifer via the on-site, 500 foot deep production well (Figure 8, Appendix A) (DER 1984). As shown in Table 10, they analyzed for pesticides and found only alpha-BHC. There are no other Floridan aquifer wells on site for comparison. Neither EPA nor Helena have determined the site-specific flow direction in the Floridan aquifer.

Lack of ground water quality data for the Floridan aquifer at this site is a significant data gap. One sample analyzed for pesticides is inadequate to characterize the extent of contamination in the Floridan aquifer. At least three monitor wells should be installed in the upper Floridan aquifer, at least 50 feet hydraulically downgradient from the Helena retention pond. An upper Floridan aquifer background monitor well hydraulically upgradient from the site should also be installed. These wells should be analyzed for solvents, metals, and pesticides. These wells are necessary to determine the extent of contamination in the upper Floridan aquifer from the retention pond. These wells should be installed so they do not create a conduit for the downward movement of contaminated ground water from the surficial aquifer. Water level measurements from these wells should be used to determine the site-specific flow direction in the upper Floridan aquifer.

Table 10. Maximum Concentrations in On-Site Floridan Aquifer Ground Water (500 Feet Deep)

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value (µg/L)	Comparison Value Source
Arsenic	NA	---	NA	---	---
alpha-, beta-, and delta-BHC	0.15	1/1	NA	0.02	CREG
gamma-BHC	ND	0/1	NA	---	---
DDT, DDE, DDD	ND	0/1	NA	---	---
Dieldrin	ND	0/1	NA	---	---
Heptachlor	ND	0/1	NA	---	---
Toxaphene	ND	0/1	NA	---	---

NA-not analyzed; ND-not detected; µg/L-micrograms per liter
Source: DER 1984

B. Off-Site Contamination

For the purposes of this evaluation, "off-site" will be defined as any area outside the Helena Chemical Company property boundaries (Figure 3, Appendix A). We compiled data in this subsection from EPA and Florida DER reports and data submitted to EPA by Wheelblast, Inc.

Off-Site Sediments

In 1988, EPA consultants collected one sediment grab sample (HC-SS-05) from the stormwater run-off path between Helena and the Tampa Bypass Canal (Figure 6, Appendix A) (EPA 1990). In 1989 and 1990, EPA consultants collected three more sediment grab samples from this stormwater run-off path and two sediment grab samples from the bypass canal near the stormwater run-off path outfall (Figure 14, Appendix A). EPA consultants also collected two background sediment samples, HC-SD-03 and HC-SD-06 (EPA 1991a). They did not collect sample HC-SD-03 far enough upstream in the bypass canal, however, to be considered representative of "background". EPA analyzed these samples for pesticides, metals, solvents, and other organic chemicals. An EPA quality control review of the analytical data indicated that some of the pesticide data are unusable.

Four samples are inadequate to determine the extent of sediment contamination in the stormwater run-off path between Helena and the Tampa Bypass Canal. The lack of adequate sediment quality data is a significant data gap. This is especially important since pesticides are of major concern at this site and some of the pesticide data for these samples are unusable. We recommend four additional sediment grab samples be collected between the retention pond and the bypass canal. These samples should be analyzed for solvents, metals, and pesticides.

Table 11. Maximum Concentrations in Off-Site Sediments

Contaminants of Concern	Maximum Concentration (mg/kg)	Total # positive / Total # samples	Background Concentration (mg/kg)	Comparison Value (mg/kg)	Comparison Value Source
Arsenic	20	2/6	NA	0.4	CREG
alpha-, beta-, and delta-BHC	0.2	1/3	NA	0.4	CREG
gamma-BHC	ND	0/1	NA	---	----
DDT, DDE, DDD	10.6	4/17	ND	2	CREG
Dieldrin	1.7	2/3	NA	0.04	CREG
Heptachlor	ND	0/1	NA	---	----
Toxaphene	20	1/7	ND	0.6	CREG

NA-not analyzed; ND-not detected; mg/kg-milligrams per kilogram
Sources: EPA 1990, 1991a

Off-Site Biota

Neither EPA nor Helena have collected or analyzed fish from the nearby Tampa Bypass Canal. If persistent and lipophilic site-related pesticides such as DDT/DDE/DDD and toxaphene were transported to the bypass canal via stormwater run-off, they could accumulate in fish eaten by sport fishermen. Since sediment sampling between the site and the bypass canal has been inadequate, we cannot estimate the probability of fish contamination. If the additional sediment samples recommended above indicate pesticide contaminated sediments have reached the bypass canal, we will recommend fish sampling and analysis.

Off-Site Surficial Aquifer Groundwater

In 1987 EPA consultants installed and sampled a temporary surficial aquifer monitor well (SC-01, depth not specified) in the northwest corner of the nearby Stauffer Chemical Company site. This well was 50 feet southeast of the Helena retention pond (Figure 15, Appendix A). EPA found low levels of alpha-BHC in this well (EPA 1988b). In 1990 Stauffer Chemical Company consultants installed a permanent surficial aquifer monitor well (MWT-1A, 4.5 to 6.5 feet deep) in the northwest corner of their property (Figure 15, Appendix A). They sampled this well twice and found elevated levels of arsenic and low levels of gamma-BHC (ERM 1991).

In 1990 Wheelblast Inc. consultants installed and sampled five surficial aquifer ground water monitor wells (2 to 12 feet deep) on their property. Wheelblast is 50 feet south of Helena (Figure 16). In addition, they installed 18 piezometers (wells to measure water levels) and determined that ground water in the surficial aquifer flows toward the southeast from Helena. They found elevated levels of arsenic and alpha-BHC in the surficial aquifer on their property (Lynch 1991).

Table 12 summarizes the maximum concentrations of the contaminants of concern in the surficial aquifer from these three investigations.

Table 12. Maximum Concentrations in Off-Site Surficial Aquifer Ground Water (2 to 12 Feet Deep)

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value	
				(µg/L)	Source
Arsenic	65	7/7	ND	0.02	CREG
alpha-, beta-, and delta-BHC	110	5/15	ND	0.02	CREG
gamma-BHC	23	2/6	ND	0.2	LTHA
DDT, DDE, DDD	ND	0/16	ND	----	----
Dieldrin	ND	0/6	ND	----	----
Heptachlor	0.85	1/7	ND	0.008	CREG
Toxaphene	ND	0/6	ND	----	----

NA-not analyzed; ND-not detected; µg/L-micrograms per liter
Sources: EPA 1988b; ERM 1991; Lynch 1991

Off-Site Floridan Aquifer Ground Water

In 1990 Stauffer Chemical Company consultants installed a Floridan aquifer monitor well (MWT-1B, 33 to 44 feet deep) on their property about 50 feet southeast of the Helena retention pond (Figure 15). According to their water level measurements, this well is hydraulically downgradient from Helena. They found arsenic but did not detect any pesticides associated with Helena (ERM 1991). Table 13 lists the concentrations of the contaminants of concern in this well. One sample, however, is insufficient to determine if the arsenic and solvents originated from Helena. Further investigation is necessary to determine the direction and extent of contamination in the Floridan aquifer from Helena.

As recommended in the "On-Site Floridan Aquifer Ground Water" section above, at least three monitor wells should be installed in the upper Floridan aquifer, at least 50 feet hydraulically downgradient from the Helena retention pond. A background well hydraulically upgradient from the retention pond should also be installed. These wells should be analyzed for solvents and metals, as wells as for pesticides. These wells are necessary to determine the extent of contamination in the Floridan aquifer from the retention pond. These wells should be installed so they do not create a conduit for the downward movement of contaminated ground water from the surficial aquifer. Water level measurements from these wells should be used to determine the site specific flow direction in the upper Floridan aquifer.

Table 13. Maximum Concentrations in Off-Site Floridan Aquifer Ground Water (33 to 43 Feet Deep)

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value (µg/L)	Comparison Value Source
Arsenic	210	1/1	---	0.02	CREG
alpha-, beta-, and delta-BHC	ND	0/1	---	---	---
gamma-BHC	ND	0/1	---	---	---
DDT, DDE, DDD	ND	0/1	---	---	---
Dieldrin	ND	0/1	---	---	---
Heptachlor	ND	0/1	---	---	---
Toxaphene	ND	0/1	---	---	---

ND-not detected; µg/L-micrograms per liter; Source: ERM 1991

Off-Site Private Wells

In 1989 and 1990, EPA consultants sampled four private wells within 0.25 mile of Helena (Figure 15, Appendix A). These wells are in the upper Floridan aquifer 72 to 120 feet deep. EPA found gasoline components in one well but at concentrations below levels of health concern. As shown in Table 14, they did not find any of the selected contaminants of concern (EPA 1991a).

Because of the threat of future contamination of the upper Floridan aquifer, all of the private wells within 0.25 mile hydraulically downgradient of this site should be identified and tested annually for solvents, metals, and pesticides.

Table 14. Maximum Concentrations in Off-Site Private Wells (72 to 120 Feet Deep)

Contaminants of Concern	Maximum Concentration (µg/L)	Total # positive / Total # samples	Background Concentration (µg/L)	Comparison Value (µg/L)	Comparison Value Source
Arsenic	ND	0/4	---	---	----
alpha-, beta-, and delta-BHC	ND	0/4	---	---	----
gamma-BHC	ND	0/4	---	---	----
DDT, DDE, DDD	ND	0/4	---	---	----
Dieldrin	ND	0/4	---	---	----
Heptachlor	ND	0/4	---	---	----
Toxaphene	ND	0/4	---	---	----

ND-not detected; µg/L-micrograms per liter; Source: EPA 1991a

C. Quality Assurance and Quality Control

In preparing this public health assessment, we relied on the referenced information and assumed that adequate quality assurance and quality control measures were followed with regard to chain-of-custody, laboratory procedures, and data reporting. The validity of the analysis and conclusions drawn for this public health assessment are determined by the completeness and reliability of the referenced information. We assumed that estimated data (J) and presumptive data (N) were valid. This second assumption errs on

CONCLUSIONS

Based on the lack of adequate sampling data for all of the contaminated media, we classify this site as an indeterminate public health hazard.

1. There are no hazardous waste warning signs around this site. Although this site is fenced, Florida law (Statutes 403.704 and 403.7255) requires warning signs at all Superfund hazardous waste sites. Specific details of this requirement are contained in Florida DER Rule 17-736.

2. Incidental ingestion of toxaphene contaminated surface soil by five to ten outdoor Helena workers is a completed exposure pathway likely to result in a low to moderate increased risk of cancer.

3. Four samples are inadequate to determine the extent of sediment contamination in the on-site retention pond.

4. Incidental ingestion of contaminated sediments along the stormwater run-off path between the site and the Tampa Bypass Canal is a potential exposure pathway. Children who play in this stormwater run-off path may have been exposed to site related contaminants. Four samples are inadequate to determine the extent of sediment contamination in this stormwater run-off path, especially since some of the pesticide data for these samples are unusable. The lack of adequate off-site sediment quality data is a significant data gap.

5. Ingestion of pesticide-contaminated fish from the Tampa Bypass Canal is a potential exposure pathway. We categorize this exposure pathway as potential since there are no fish sampling data and the sediment sampling data are inadequate to determine if contaminated sediments from Helena have reached the Tampa Bypass Canal.

6. Quarterly monitoring of the on-site surficial aquifer has been inadequate due to the lack of pesticide analyses.

7. The existing data are inadequate to determine ground water flow direction in the upper Floridan aquifer below this site.

8. One sample analyzed for pesticides is inadequate to characterize the extent of contamination in the Floridan aquifer under this site. The lack of adequate ground water quality data for the Floridan aquifer at this site is a significant data gap. Additional Floridan aquifer monitor wells are necessary to determine the extent of contamination under this site.

9. Ingestion of contaminated ground water from the upper Floridan aquifer near this site is a future potential exposure pathway. Ground water from the Floridan aquifer is the source of drinking water for most of Hillsborough County. The surficial aquifer is not used as a source of irrigation or drinking water locally due to its limited yield. Ground water in the upper Floridan aquifer, 50 feet from the Helena retention pond, is contaminated with arsenic. Long-term ingestion of arsenic at the maximum concentration detected would cause a low to moderate increased risk of skin cancer. At least four houses within 0.25 mile of this site use ground water from the upper Floridan aquifer for drinking. Although these wells have been tested and found to be free of contamination, they may become contaminated in the future.

10. We contacted the Hillsborough County Public Health Unit, the Hillsborough County Environmental Protection Commission, the Florida DER Southwest District Office, EPA, and a community environmental activist but were unable to find any community health concerns.

11. Twenty-nine chemicals found in various media at this site lack enough toxicological data to determine their public health significance.

Stauffer Chemical - Tampa
Risk Assess
Prelim Health Assess

PRELIMINARY PUBLIC HEALTH ASSESSMENT

STAUFFER CHEMICAL CO. (TAMPA PLANT)

TAMPA, HILLSBOROUGH COUNTY, FLORIDA

CERCLIS NO. FLD004092532

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The Florida Department of Health and Rehabilitative Services

Under Cooperative Agreement With the

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service
Department of Health and Human Services

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SUMMARY

The Stauffer Chemical Co. (Tampa Plant) site is a former pesticide formulating and packaging operation in Tampa, Florida. We classify this site as an indeterminate public health hazard. Past disposal practices have contaminated on-site air, soil, surface water, sediments, and ground water. Neither EPA nor Stauffer consultants have delineated the vertical and lateral extent of contamination in the Floridan aquifer. The one on-site caretaker has been exposed via inhalation and incidental soil ingestion. Future workers may likewise be exposed. The available data, however, do not indicate that these exposures would cause adverse health effects. The data are inadequate, however, to assess the risk for the 5-50 people who eat fish from the nearby Tampa Bypass Canal.

We contacted federal, state, and local governmental agencies and one local resident/activist but did not find any community health concerns.

During any future remediation, Stauffer should control contaminated dust and monitor air quality. Stauffer should collect and analyze 7-10 more sediment samples and 5-10 fish samples from the bypass canal. Stauffer should delineate the vertical and lateral extent of contamination in the Floridan aquifer. Stauffer should also post signs to warn the public of hazardous waste at this site. The Occupational Safety and Health Administration or the National Institute for Occupational Safety and Health should consider medical evaluation and monitoring of the site caretaker.

The Florida Department of Health and Rehabilitative Services (HRS), in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR), prepared this public health assessment. Because the available data and information do not indicate that adverse health effects are likely, the ATSDR Health Activities Recommendation Panel determined that there is no need for additional health follow-up actions at this time. Florida HRS will reassess the public health threat of this site as soon as more information is available.

BACKGROUND

In this preliminary public health assessment, the Florida Department of Health and Rehabilitative Services (Florida HRS), in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR), evaluates the public health significance of the Stauffer Chemical Co. (Tampa Plant) Superfund hazardous waste site. ATSDR, a federal agency within the U.S. Department of Health and Human Services, is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to conduct public health assessments at hazardous waste sites. In this assessment, Florida HRS determines whether health effects are possible and recommends actions to reduce or prevent them.

A. Site Description and History

In 1982 the Florida Department of Environmental Regulation (Florida DER) inspected the Stauffer Chemical Company (Stauffer) in Tampa to determine compliance with state hazardous waste regulations. Because of past waste disposal practices and proximity to the Tampa Bypass Canal, Florida DER recommended an Environmental Protection Agency (EPA) inspection. EPA inspected the site and found evidence of buried drums and possible ground-water contamination (Hundley and Leggett 1982). Beginning in 1984, Florida DER required Stauffer to sample the water in the on-site ditch and the nearby Tampa Bypass Canal for pesticides. Stauffer found low levels of pesticides in the ditch but not in the Tampa Bypass Canal (ERM 1991; Harris 1991; McClellan 1984a, 1984b, 1986, 1987). EPA conducted site investigations in 1987 and 1988 and found on-site air, soil, surface water, sediments, and ground-water contamination (NUS 1988a and 1988b). EPA proposed this site to the Superfund National Priorities List on February 7, 1992 and is planning a remedial investigation.

Florida HRS, in cooperation with ATSDR, is preparing this public health assessment as required by the Superfund Amendments and Reauthorization Act of 1986 (SARA). SARA requires ATSDR to assess the public health threat at Superfund sites within a year of their proposal to the Superfund National Priorities List.

The Stauffer Chemical Company site is an inactive pesticide and herbicide formulation and packaging facility at 2009 Orient Road in Tampa, Florida (Figures 1, 2, and 3, Appendix A). The site, still owned by Stauffer, covers 40 acres in an industrial section of Hillsborough County, about 3 miles northeast of Tampa Bay. The site is mostly flat with a slight slope to the east. It is bounded on the north by the Seaboard Coastline Railroad, on the east by the Tampa Bypass Canal, on the south by the Hillsborough County Detention Facility, and on the west by Orient Road.

There is a large warehouse and several smaller buildings on the northern half of the site. Also on the northern half of the site are two 1-2 acre ponds. These ponds are believed to be remnants of Six Mile Creek that were cut off by construction of the Tampa Bypass

Canal. The rest of the northern half of the site is covered with grass except for a 1.4 acre area east of the warehouse which is devoid of any vegetation.

The southern half of the site is mostly wooded and is drained by a ditch that discharges into the Tampa Bypass Canal. A 100 foot wide levee separates the bypass canal from the site. The Tampa Bypass Canal, begun in 1966 and completed in 1973, allows flood waters from the upper Hillsborough River to bypass downtown Tampa and flow through McKay and Hillsborough Bays into Tampa Bay. The canal was built in the basin of Six Mile Creek which previously drained the area. A spillway 1000 feet downstream of Stauffer regulates discharge of the canal into McKay Bay which is about 2.5 miles downstream.

Stauffer Chemical Company began formulating and packaging agricultural chemicals at this site in 1951. Stauffer received bulk shipments of insecticides and herbicides; reformulated them into dusts, granules, and liquids; and then packaged them for distribution. Table 1 (Appendix B) contains a list of the chemicals reportedly use by Stauffer at this site. Stauffer produced about 2,500 tons of dust and granules and 500,000 gallons of liquid pesticides yearly. Stauffer reportedly used about 12 million gallons of No. 1 fuel oil and 240,000 gallons of xylene yearly as carriers. Between 1953 and 1973, Stauffer reportedly disposed of 70-80 drums of methylparathion, over 8,000 gallons of toxaphene, and other pesticide and solvent waste in on-site, unlined pits. Stauffer also used an incinerator to burn the bags and boxes that had contained the pesticides and herbicides, but reportedly disposed of the ash off site. Stauffer ceased production at this site in 1986. This site is now inactive, is fenced with locked gates, and is patrolled during the day. We were unable to determine the source of drinking water for Stauffer employees. Neither Stauffer nor EPA have taken any emergency response or remediation actions at this site.

B. Site Visit

Randy Merchant, with Florida HRS, and the EPA Remedial Project Manager (RPM) visited the site on September 10, 1992. They met with a representative of Stauffer Chemical and the site caretaker. The site caretaker has been an employee of Stauffer at this site since at least 1970. The Stauffer representative explained past operations and conducted a tour of the site. Neither Mr. Merchant nor the EPA RPM collected any environmental samples during this visit. Mr. Merchant spent two hours on the site and made the following observations:

* The site was surrounded by a well-maintained 8-foot chain-link fence and patrolled by the caretaker during the day.

* There were no hazardous waste warning signs.

* There was no evidence of site trespass.

* There was a 1-2 acre area in the northeast quarter of the site devoid of vegetation. The rest of the site is either covered with buildings, pavement, grass, or woods.

* There was dense vegetation and several wading birds around the large pond on the east side of the site

* A shallow ditch on the southern half of the site drains into the Tampa Bypass canal.

* The southern half of the site is wooded and does not appear to have been used for formulating or packaging pesticides.

On September 11, Mr. Merchant drove through the area around the site. The area immediately around the site is mixed industrial/commercial. The Helena Chemical Superfund site is about 50 feet northwest of Stauffer. There is a cement mixing facility immediately north of the site across the railroad tracks. The Tampa Bypass Canal forms the eastern site boundary. Mr. Merchant observed people fishing from the bridge over the bypass canal just north of the site. On the south side of the site is the Hillsborough County Detention Facility, formerly the Hillsborough County Animal Control Board shelter and a Florida Department of Transportation maintenance building. There are bail bond and light industrial/commercial businesses along Orient Road which forms the eastern site boundary. The southern boundary of the Orient Park residential subdivision is about 1,000 feet northwest of the site.

We obtained information about the area from various local officials: Hillsborough County Public Health Unit, Environmental Health section; the Hillsborough County Environmental Protection Commission; and the Florida DER Southwest District Office. We incorporated information from these agencies into the appropriate sections of this report.

C. Demographics, Land Use, and Natural Resource Use

Demographics

According to the 1990 census data, about 5,600 people live within 1.5 mile of this site, mostly in the Orient Park community and along Broadway Avenue. These residents are mostly white (77%) with a black (15%) and Hispanic (8%) minority. The population is relatively young: the median age is 31 and 17% are under 10 years old. Most (57%) of the 2,200 homes in this area are owner occupied. The median yearly family income in this area is about $22,000 (BOC 1992).

Land Use

Stauffer ceased operations in 1986 and does not plan to formulate or package pesticides at this site again. Hillsborough County has expressed an interest in buying the southern half of this site to expand their detention facility.

The area within about 1.5 miles of the site is mostly industrial/commercial and residential. The Helena Chemical Superfund site is 50 feet northwest of Stauffer. The 62nd St. Landfill and Kassouf-Kimerling Superfund sites are about 2 miles west of Stauffer. A steel recycling facility, a secondary lead smelter, and the Uceto Railroad Yard are all within 1.5 miles of Stauffer. The nearest house is about 700 feet northwest of the site. The Kenly Elementary School and two day-care facilities are in the Orient Park neighborhood about 0.5 mile northwest of the site.

Natural Resource Use

The Tampa Bypass Canal is located about 100 feet east of the site. It discharges into McKay Bay 2.5 miles downstream. Florida DER classifies the Tampa Bypass Canal and McKay Bay as Class-III surface waters (recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife). Although the canal and McKay Bay are not used as drinking water sources and commercial fishing is prohibited, individuals do catch and eat fish from both.

Ground water from the Floridan aquifer is the source of drinking water for most municipal and private water supply systems in Hillsborough County. The four supply wells for Seaboard Utilities, which serves 2600 connections, are 1.75 miles south-southeast of Stauffer. The two supply wells for USA Utilities, which serves 851 connections, are 2.25 miles north-northwest of Stauffer. The supply wells for the Shady Oak Trailer Park (1.25 miles, 40 trailers), the Paradise Mobile Home Park (2.25 miles, 307 trailers), and the Riverbreeze Motor Home Park (2.35 miles, 19 trailers) are all northeast of Stauffer (EPA 1991).

Most of the houses within 0.5 mile of Stauffer are served by a municipal water supply. A few homes, however, still use private wells. The nearest private well is at 2512 Orient Rd., about 700 feet north-northwest of the site. A second is located at 2428 N. 70th St., about 1100 feet west of the site.

There is little agriculture, hunting, or recreation in this area.

D. Health Outcome Data

We did not evaluate health outcome data for this site. See the Public Health Implications, Community Health Concerns Evaluation section for details.

COMMUNITY HEALTH CONCERNS

We contacted the Hillsborough County Public Health Unit, the Hillsborough County Environmental Protection Commission, the Florida DER Southwest District Office, and EPA to find community health concerns. None of these agencies were aware of any health concerns regarding this site. We contacted one resident who is active with the 62nd St. Landfill Superfund site 2 miles west of Stauffer. She said area residents are concerned about all local industrial facilities but could not specifically name any health concerns regarding Stauffer.

ENVIRONMENTAL CONTAMINATION AND OTHER HAZARDS

In this section, we review the environmental data collected at the site, evaluate the adequacy of the sampling, select contaminants of concern, and list the maximum concentration and frequency of detection in the various media. We then compare the maximum concentrations to background levels and to standard comparison values.

We summarize the environmental sampling data for the eight selected contaminants of concern in Tables 2 through 13, Appendix B. We eliminated from further consideration about 40 other chemicals detected in various media at concentrations below standard comparison values (Table 14, Appendix B). Sixty other chemicals, however, have no standard comparison values and the human health data are insufficient to determine their public health significance. We list these chemicals in Table 15, Appendix B.

We selected the following chemicals as contaminants of concern at this site:

alpha-BHC	DDT, DDD, DDE	Toxaphene
Chlordane	Dieldrin	Arsenic

Alpha-BHC (alpha-benzene hexachloride) is also known as alpha-HCH (alpha-hexachlorocyclohexane).

Identification of a contaminant of concern in this section does not necessarily mean that exposure will cause adverse health effects. Identification serves to narrow the focus of the health assessment to those contaminants most important to public health. When selected as a contaminant of concern in one medium, we also reported that contaminant in all other media. We evaluate these contaminants in subsequent sections and determine whether exposure has public health significance.

We selected these contaminants based on the following factors:

1. Concentrations of contaminants on and off the site.
2. Field data quality, laboratory data quality, and sample design.
3. Community health concerns.
4. Comparison of on-site and off-site concentrations with the following health assessment comparison values:
    a. Environmental Media Evaluation Guide (EMEG): derived from ATSDR's Minimal Risk Level (MRL), the estimate of daily human exposure to a chemical likely to be without an appreciable risk of adverse effects, generally for a period of a year or longer.
    b. Reference Dose Media Evaluation Guide (RMEG): derived from EPA's Reference Dose (RfD), the estimate of daily human exposure to a chemical likely to be without an appreciable risk of adverse effects, generally for a period of a year or longer.
    c. Lifetime Health Advisory (LTHA): EPA's estimate of the concentration of a contaminant in drinking water at which adverse health effects would not be expected to occur over a lifetime of exposure. LTHAs provide a safety margin to protect sensitive members of the population.
    d. Maximum Contaminant Level (MCL): the contaminant concentration that EPA considers protective of public health over a 70 year lifetime at an exposure rate of 2 liters of water per day. MCLs are regulatory concentrations.
    e. Cancer Risk Evaluation Guide (CREG): calculated from EPA's cancer slope factors, the contaminant concentration estimated to result in one excess cancer in a million persons exposed over a lifetime.

To find industrial facilities that could add to the contamination near the Stauffer site, we searched the 1987-1990 EPA Toxic Release Inventory (TRI) data base. EPA developed TRI from the chemical release information (air, water, and soil) provided by certain industries. Thirteen facilities in the 33619 ZIP code reported releases from 1987-1990. This ZIP code covers a rectangular area about 2 miles west, north and east and 5 miles south of Stauffer (Figure 4, Appendix A). Gulf Coast Lead, 1901 N. 66th St. was the only facility to report releases of contaminants that are of concern at Stauffer. Gulf Coast Lead reported the release of 250 pounds of arsenic into the air during 1989. Gulf Coast Lead did not report any releases of arsenic in 1987, 1988, or 1990.

We discuss the contamination that exists on the site first, separately from the contamination that occurs off the site. We further divide our discussion of on- and off-site contamination by media:

On-Site

air
surface soil
subsurface soil
pond water
drainage ditch water
pond sediments
drainage ditch sediments
shallow ground water
deep (Floridan) ground water

Off-Site

Tampa Bypass Canal water
Tampa Bypass Canal sediments
private drinking water wells

A. On-Site Contamination

For the purposes of this evaluation, we define "on-site" as the area within the Stauffer property boundary plus the Tampa Bypass Canal levee adjacent to Stauffer (Figure 3). Including the bypass canal levee in the definition of "on-site" allows us to combine the data from the one monitor well installed on the levee with the rest of the ground-water monitoring data.

We compiled data in this subsection from reports of investigations by Stauffer (ERM 1991; Harris 1991; McClellan 1984a, 1984b, 1986, 1987) and EPA (NUS 1988a, 1988b).

On-Site Air

There is no record of air monitoring before Stauffer ceased operations in 1986. On February 2-4, 1988, EPA subcontractor NUS Corporation collected air samples in the breathing zone from 12 on-site locations (Figure 5, Appendix A)(NUS 1988b). The wind was calm and there was no other on-site activity when NUS collected these samples. We considered air sample locations "C" and "K" on the east side of the site as representative of the background air quality. For this public health assessment, these air samples adequately characterize the ambient on-site air quality. EPA analyzed these samples for pesticides only.

Of the fourteen pesticides detected, three (alpha-BHC, chlordane, and DDT) were above their respective comparison values (Table 2, Appendix B). One (heptachlor) was below its comparison value and the other 10 pesticides lacked comparison values. Pesticide levels will likely be higher during activities that disturb the surface soil and create dust.

On-Site Surface Soil

Between 1987 and 1990, EPA and Stauffer collected and analyzed 48 surface soil samples (0-12 inches deep) from all areas of the site (Figures 6, 7, and 8, Appendix A) (ERM 1991; NUS 1988a, 1988b). We consider surface soil samples SS-01 and C5 as representative of background surface soil quality. For a public health assessment, these samples are adequate to characterize the on-site surface soil quality.

EPA and Stauffer found 26 different pesticides, the highest concentrations in the barren area east of the warehouse. The highest pesticide concentration found was 20,000 milligrams of carbophenthion per kilogram soil. All of the contaminants of concern (alpha-BHC, chlordane, DDT, DDE, DDD, dieldrin, toxaphene, and arsenic) were above their respective comparison values (Table 3, Appendix B). They also found solvents, metals, and polyaromatic hydrocarbons (PAHs).

On-Site Subsurface Soil

Between 1987 and 1990, EPA and Stauffer collected and analyzed 74 on-site subsurface soil samples (1-10 feet deep) (ERM 1991; NUS 1988a, 1988b). Sample locations are shown in Figures 9, 10, and 11. We consider subsurface soil samples SC-01, SC-02, SC-03, SB-01, SB-02, and A22 representative of the background subsurface soil quality. For a public health assessment, these samples are adequate to characterize the on-site subsurface soil quality. EPA and Stauffer found pesticides, solvents, metals, polyaromatic hydrocarbons (PAHs), and components of gasoline and/or diesel fuel. The concentrations of all of the contaminants of concern were above their respective comparison values (Table 4, Appendix B).

On-Site Pond Water

Between 1987 and 1990, EPA and Stauffer collected and analyzed five surface water grab samples from the on-site ponds (Figures 12 and 13, Appendix A)(ERM 1991; NUS 1988a). There are no other on-site surface water bodies representative of background surface water quality. For a public health assessment, these samples are adequate to characterize the on-site pond water quality. EPA and Stauffer found pesticides and a few solvents. The concentrations of alpha-BHC, DDT, DDE, DDD, and dieldrin were above their respective comparison values (Table 5, Appendix B).

On-Site Drainage Ditch Water

Between 1984 and 1990, EPA and Stauffer collected and analyzed 14 surface water grab samples from the on-site drainage ditch (Figure 12, Appendix A) (Harris 1991; McClellan, 1984a, 1984b, 1986, 1987; NUS 1988a). There are no other on-site surface water bodies representative of background surface water quality. For a public health assessment, these samples are adequate to characterize the on-site drainage ditch water quality. EPA and Stauffer found pesticides and metals. The concentrations of alpha-

BHC, DDD, dieldrin, and arsenic were above their respective comparison values (Table 6, Appendix B).

On-Site Pond Sediments

Between 1987 and 1990, EPA and Stauffer collected and analyzed 19 sediment grab samples from the on-site ponds (Figures 12, 13, and 14, Appendix A)(ERM 1991; NUS 1988a). There are no other on-site sediments representative of background sediment quality. For a public health assessment, these samples are adequate to characterize sediment quality in the on-site ponds. EPA and Stauffer found pesticides, metals, polyaromatic hydrocarbons (PAHs), and components of gasoline and/or diesel fuel. The highest pesticide concentration was 8,700 milligrams of DDT per kilogram of sediment. The concentrations of chlordane, DDT, DDE, DDD, dieldrin, and arsenic were above their respective comparison values (Table 7, Appendix B).

On-Site Drainage Ditch Sediments

Between 1987 and 1990, EPA and Stauffer collected and analyzed 9 sediment grab samples from the on-site drainage ditch (Figures 8, 12, and 14, Appendix A)(ERM 1991; NUS 1988a, 1988b). There are no other on-site sediments representative of background sediment quality. For a public health assessment, these samples are adequate to characterize sediment quality in the on-site drainage ditch. The concentrations of chlordane, DDE, and arsenic were above their respective comparison values (Table 8, Appendix B).

On-Site Shallow Groundwater

Between 1987 and 1990, EPA and Stauffer collected and analyzed 17 ground-water samples from monitor wells in the surficial aquifer (3-14 feet deep)(ERM 1991; NUS 1988a). Monitor well locations are shown in Figures 9 and 15, Appendix A. Stauffer determined that ground water in the shallow aquifer flows to the southeast toward the bypass canal. We consider ground-water samples from monitor wells SC-01, SC-02, SC-03, MWT-1A, and MWT-3A representative of the background shallow ground-water quality. For a public health assessment, these samples are adequate to characterize on-site shallow ground-water quality. EPA and Stauffer found metals, pesticides, and solvents. The concentrations of alpha-BHC, DDT, DDE, DDD, dieldrin, and arsenic were all above their respective comparison values (Table 9, Appendix B).

On-Site Deep Groundwater

In 1990, Stauffer collected and analyzed 8 ground-water samples from monitor wells in the Floridan aquifer (38-60 feet deep) (ERM 1991). The monitor well locations are shown in Figure 15, Appendix A. Stauffer determined that ground water in the Floridan aquifer flows to the southeast toward the bypass canal. We consider ground-water samples from monitor wells MWT-1B and MWT-3B representative of the background deep ground-water quality. Stauffer found pesticides in the wells near the barren area

east of the warehouse, but no contaminants of concern (Table 10, Appendix B). Stauffer also found pesticides, arsenic, and solvents in "background" well MWT-1B located in the northwest corner of the property. This may indicate a previously unknown source of contamination, migration from an off-site source, or ground water flow in a direction other than to the southeast. Further investigation is necessary to delineate the source of this contamination.

B. Off-Site Contamination

For the purposes of this evaluation, we define "off site" as the area outside the Stauffer property and the adjacent Tampa Bypass Canal levee (Figure 3, Appendix A). We compiled data in this subsection from reports of investigations by Stauffer (Harris 1991; McClellan 1984a, 1984b, 1986, 1987) and EPA (NUS 1988a).

Off-Site Surface Water

Between 1984 and 1990, Stauffer collected and analyzed 11 surface water grab samples from the Tampa Bypass Canal near the southeast corner of the site. Stauffer also collected and analyzed background samples from the canal at the railroad bridge upgradient of the site (Figure 16, Appendix A) (Harris 1991; McClellan, 1984a, 1984b, 1986, 1987). In 1987 EPA collected and analyzed one sample from the canal below the spillway (S-160) 1,600 feet downstream of the site and a background sample at the railroad bridge (Figure 12, Appendix A)(NUS 1988a). Concentrations of the contaminants of concern were all below detection limits (Table 11, Appendix B). For a public health assessment, these samples are adequate to characterize off-site surface water quality.

Off-Site Sediments

Given past disposal practices, site drainage patterns, and proximity to the Six Mile Creek/Tampa Bypass Canal; it is likely that stormwater run-off from this site deposited pesticides and metals in the sediments of the creek/bypass canal. In 1987 EPA collected and analyzed 3 sediment grab samples from the bypass canal near the site (Figure 14, Appendix A) (NUS 1988b). EPA did not collect a background sediment sample upstream from the site. EPA detected DDD and arsenic in the two downstream sediment samples. Only arsenic, however, exceeded its comparison value (Table 12, Appendix B). EPA detected 19 unidentified compounds, at concentrations up to 30 milligrams per kilogram, in one of the downstream sediment samples. The sediment sample collected at the northern site boundary did not contain any pesticides or metals but did contain low concentrations of polyaromatic hydrocarbons (PAHs).

The sediment quality in the on-site ponds may be indicative of the bypass canal sediment quality. Stauffer was in operation next to Six Mile Creek for about 15 years before construction of the bypass canal. The ponds are thought to be remnants of Six Mile Creek that were cut off by construction of the bypass canal. The pond sediments contain high levels of pesticides and metals.

Three sediment samples are inadequate to characterize the sediment quality of the bypass canal adjacent to Stauffer. Seven to ten more samples from the bypass canal between the site and spillway S-160, downstream from the site, will be necessary to adequately characterize the sediment quality. To help isolate contributions from other sources, two of these sediment samples should be background samples collected from the bypass canal about 500 and 1,000 feet north (upstream) of the northern site boundary. These sediment samples should be analyzed for pesticides. Although there are other sources in this area that may have added to the sediment contamination, past disposal practices, site drainage patterns, and proximity to the bypass canal make Stauffer a likely source.

Off-Site Private Drinking Water Wells

In 1987 EPA sampled and analyzed two private drinking water wells northwest of the site (Figure 17, Appendix A)(NUS 1988a). These wells are in the Floridan aquifer 60-350 feet deep. These wells did not contain any contaminants of concern (Table 13, Appendix B).

Off-Site Deep Ground Water

Neither EPA nor Stauffer consultants have sampled the Floridan aquifer, hydraulically downgradient from Stauffer. Although the Tampa Bypass Canal intersects the upper Floridan aquifer and appears to be a discharge point, it may not intercept contamination deeper in the Floridan aquifer. We recommend that Stauffer or EPA fully delineate the vertical and lateral extent of contamination in the Floridan aquifer.

Off-Site Biota

The lack of analysis of fish from the Tampa Bypass Canal is a significant data gap because people eat fish caught in this canal. These fish may be contaminated as a result of past waste disposal practices at Stauffer. Although EPA and Stauffer did not find contamination in the bypass canal water itself, they did find low concentrations of pesticides and metals in the bypass canal sediments. They also found significant concentrations of alpha-BHC, chlordane, DDE, DDD, dieldrin, and arsenic in the water and sediments in the on-site drainage ditch that flows into the bypass canal. If the bypass canal sediments are contaminated, they could act as a source of contamination of the food chain. People who eat fish from the bypass canal may be exposed to these pesticides. Stauffer should collect 5-10 fish samples from the bypass canal between the spillway downstream of the site (S-160) and the spillway upstream of the site (S-162). These fish samples should be of the kind and size that people catch and eat from this canal. They should analyze these fish samples for pesticides.

C. Quality Assurance and Quality Control

In preparing this public health assessment, we relied on the information in the referenced reports and assumed that adequate quality assurance and quality control

CONCLUSIONS

Based on the information currently available, we classify this site as an indeterminate public health hazard. The limited available data do not indicate that humans are being exposed to levels of contamination that would be expected to cause adverse health effects. Information is not available, however, for all environmental media to which humans may be exposed.

1. The on-site air is contaminated with low levels of pesticide vapors and/or pesticide contaminated dust. The on-site surface soil, subsurface soil, pond sediments, and drainage ditch sediments are also contaminated with pesticides. Any remediation that disturbs the soil or sediments may increase air concentrations beyond safe levels.

2. The on-site caretaker, a long-term Stauffer employee, has been exposed to pesticides at this site via inhalation and incidental ingestion for at least 20 years. Although the data do not indicate that current exposures are likely to result in adverse health effects, past exposures may have been much higher. This caretaker may have suffered health effects from past exposures and/or may suffer health effects in the future.

3. It is likely that stormwater run-off and ground-water discharge from this site has deposited pesticides in the Six Mile Creek/Tampa Bypass Canal sediments. EPA detected pesticides in the sediment of the bypass canal. EPA and Stauffer also found high levels of pesticides in the on-site pond sediments. These ponds are thought to be remnants of Six Mile Creek that were left after construction of the bypass canal. Three sediment samples are not enough, however, to adequately characterize the extent of contamination.

4. Because people eat fish caught in the Tampa Bypass Canal adjacent to this site, the lack of fish analyses is a significant data gap. EPA found low concentrations of pesticides in the bypass canal sediments. Canal sediments can act as a source of contamination for the food chain in the canal. People who eat fish from the canal may be exposed to these pesticides.

5. Much of Hillsborough County relies on the Floridan aquifer for their drinking water supply. Two large and three small water supply systems have wells within 2.5 miles of Stauffer. Ingestion of contaminated ground water is a potential human exposure pathway. Although the nearest private wells are not contaminated, neither EPA nor Stauffer consultants have determined the vertical and lateral extent of contamination in the Floridan aquifer.

6. We were unable to determine the source of drinking water for Stauffer employees from 1951 to 1986. Ingestion of contaminated ground water by Stauffer employees is a potential past exposure pathway.

7. There are no hazardous waste warning signs around this site. Although this site is fenced, Florida law (Statutes 403.704 and 403.7255) requires warning signs at all Superfund hazardous waste sites. Specific details of this requirement are contained in Florida DER Rule 17-736.

8. Sixty chemicals found in various media at this site lack enough toxicological data to determine their public health significance.

P. UW&T OPERATING PERMIT

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor | Dale Twachtmann, Secretary | John Shearer, Assistant Secretary
Dr. Richard Garrity, Deputy Assistant Secretary

Ms. Sharon Roehm
General Manager
Universal Waste & Transit, Inc.
2002 North Orient Road
Tampa, Florida 33619

SEP 10 1993
HAZARDOUS WASTE PERMITTING

Re: Modification of Conditions
Permit No. HO29-171163

Dear Ms. Roehm:

We are in receipt of your request for a modification of the permit conditions. The conditions are changed as follows:

Condition:	From	TO
Description of Permitted Waste	F020 - F024	F020 - F028

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

Richard D. Garrity, Ph.D.
Deputy Assistant Secretary
Southwest District

RDG/lrmb

cc: James Scarbrough, EPA Region IV
Satish Kastury, DER Tallahassee

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Dr. Richard Garrity, Deputy Assistant Secretary

PERMITTEE:
Universal Waste & Transit, Inc.
2002 N. Orient Road
Tampa, Florida 33619

Attn: Robert J. Bedore
Vice President

PERMIT/CERTIFICATION:
I.D. Number: FLD 981 932 494
Permit No.: HO29-171163
County: Hillsborough
Issue Date: July 3, 1990
Expiration Date: July 3, 1995
Latitude / Longitude:
27°57'49"N / 82°22'23"W
Section / Township / Range:
14 / 29S / 19E
Project: Operation of a Hazardous Waste Treatment and Container Storage Facility

This permit is issued under the provisions of Chapter 403.722, Florida Statutes, and Florida Administrative Code Rules 17-730. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The operation of a drum storage and physical treatment facility for hazardous waste located at 2002 N. Orient Road, Tampa, Hillsborough County, Florida.

The facility occupies a 5866 square foot building and features a floor which is five (5) inches of continuously poured 4000 psi concrete coated with one layer of sealant and two layers of polyurethane coating.

The drum storage area is composed of three separate bays. Between each bay is an eight inch wide concrete block wall, extending from the floor to the roof, that has been designed with a minimum fire resistance of four hours. Storage bays 1 and 3 are at opposite ends of the building and have the identical dimensions of approximately 48 feet by 50 feet. Storage bay 2 is in the center of the building and has smaller dimensions of approximately 22 feet by 50 feet.

Five containment sumps, each having a 928 gallon capacity, are provided as follows: 2 sumps each in storage bays 1 and 3, 1 sump in storage bay 2.

The physical treatment of solidification for semi-solid wastes requiring further filtration will be performed on a batch basis. The solidification process will employ a filter press having approximate dimensions of 2.6 feet by 10.25 feet by 3.6 feet. The press will be manufactured of structural steel and will be pneumatically operated. The press will not utilize electrical components. Wastes subject to solidification will include the same wastes Universal is permitted to store with the exclusion of flammable and corrosive wastes.

Presented below is a table detailing the hazardous wastes Universal is authorized to accept:

EPA Hazardous Waste Number	Waste Type	Estimated Annual Quantity (Gallons)
D001	Ignitible	100,000
D002	Corrosive	25,000
D003	Reactive	5,000
D004 - D017	E. P. Toxic	60,000
F001 & F002	Halogenated Solvents	100,000
F003 & F005	Non-Halogenated Solvents	Included in D001
F004	Non-Halogenated Solvents	10,000
F006	Electroplating Sludges	Included in D003 - D017
F007 - F012	Electroplating Wastes	Included in D003
F020 - F024	HCL Manufacturing	1,000
K001	Wood Preservative	1,000
K002 - K008	Inorganic Pigments	3,000
K009 - K011		
K013 - K030		
K083 & K085		
K093 - K096		
K103 - K105	Organic Chemicals	3,500
K071, K073, K106	Inorganic Chemicals	600
K031 - K043		
K097 - K099	Pesticides	1,500
K048 - K052	Petroleum Refining	8,000
K061 & K062	Iron & Steel	10,000
K069 & K100	Secondary Lead	1,500
K084, K101, K102	Veterinary Pharmaceuticals	1,500

EPA Hazardous Waste Number	Waste Type	Estimated Annual Quantity (Gallons)
K086	Ink Formulation	20,000
K060 & K087	Coking	1,500
"P" listed waste	Acute Hazardous Wastes	4,000
"U" listed waste	Toxic Wastes	20,000

Universal Waste shall also be permitted to store certain unknown wastes received during emergency clean-up activities arising from an outside source which Universal has responded to offer professional assistance.

The facility will support a drum storage capacity of 33,600 gallons which shall be composed of the combined total of all wastes received for consolidation, solidified wastes and unknowns.

The following submittals were utilized in the preparation of this permit, and are considered a part thereof:

- Application for A Hazardous Waste Facility Permit, DER Form 17-730.900(2) and related attachments received October 10, 1989.

- Modifications and additions to the above application received on November 20, 1989, November 27, 1989, December 7 and 8, 1989, February 2, 1990 and March 1, 1990.

- Environmental Protection Agency letter dated January 30, 1990 referencing the August 18, 1988 on-site Resource Conservation and Recovery Act Facility Assessment which demonstrated that no apparent prior or continuing releases of hazardous wastes or constituents were evident at this site.

Replaces Permit No.: HC29-141782

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.

GENERAL CONDITIONS: (cont'd)

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purposes of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

(a) a description of and cause of non-compliance; and

(b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

GENERAL CONDITIONS: (cont'd)

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Section 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)

( ) Determination of Prevention of Significant Deterioration (PSD)

( ) Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS: (cont'd)
14. (cont'd)

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

16. In the case of a hazardous waste facility permit, the following permit conditions shall also apply:

a. The permittee will submit the following reports to the Department:

(1) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within 15 days after receiving the waste, the permittee shall immediately submit a letter report including a copy of the manifest to the Department.

(2) Unmanifested waste report: The permittee shall submit an unmanifested waste report to the Department within 15 days of receipt of unmanifested waste.

GENERAL CONDITIONS: (cont'd)

16.a. (cont'd)

(3) Annual report: An annual report covering facility activities during the previous calendar year must be submitted in accordance with Florida Administrative Code Rule 17-730.

b. Notification of any non-compliance which may endanger public drinking water supplies, or the occurrence of a fire or explosion from the facility which could threaten the environment or human health outside the facility, shall be verbally submitted to the Department within 24 hours and a written submission provided within 5 days. The verbal submission within 24 hours shall contain the name, address, I.D. number and telephone number of the facility and owner or operator, the name and quantity of materials involved, the extent of injuries (if any), an assessment of actual or potential hazards, and the estimated quantity and disposition of recovered material. The written submission shall contain the following:

(1) a description of any cause of non-compliance; and

(2) if not corrected, the anticipated time the non-compliance is expected to continue and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

c. Reports of compliance or non-compliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

d. All reports or information required to be submitted to the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.

SPECIFIC CONDITIONS:
Part I. - General

1. The permittee shall operate the herein permitted facility in accordance with 40 CFR Part 264, Subparts A through I, Part 265, Subpart Q, the conditions of this permit, and the permit application.

2. The permittee shall store only those wastes identified in Attachment 10 of Volume 5 of the application. Prior to acceptance of new hazardous waste for storage, the permittee shall submit to the Department, for approval, waste analysis of the proposed new waste. This analysis shall also be incorporated in the general waste analysis plan which is retained on site. Compliance with this condition shall be in accordance with 40 CFR Part 264.13.

3. The permittee shall be authorized to store any RCRA hazardous waste under the special provisions detailed in the securement of an unknown waste, received during emergency clean-up activities arising from an outside source which the permittee has responded to offer professional service, as per Specific Condition Part V Item 2 of this permit.

4. The permittee shall notify the Department in writing four weeks prior to receipt of hazardous waste from a foreign source, and comply with the other requirements of 40 CFR Part 264.12.

5. The permittee is only allowed to operate the hazardous waste units specified in pages 1 of 18, 2 of 18, and 3 of 18 of this permit.

6. The permittee shall comply with the required notice of 40 CFR Part 264.12(c) before transferring ownership or operation of the facility during its operating life.

7. The permittee shall maintain and update the records of chemicals and physical analysis for the hazardous wastes generated, stored, and treated at the permitted facility, as indicated in the permit application in Volume 3, in compliance with 40 CFR Parts 264.13(a) and 264.13(b).

8. The permittee shall prevent unauthorized entry of persons onto the hazardous waste units to comply with the security requirements of 40 CFR Part 264.14, and shall maintain the security equipment and procedures as described in the permit application, under Tab 9 of Volume 1.

SPECIFIC CONDITIONS: (cont'd)
Part I. - General (cont'd)

9. The permittee shall inspect the facility operating, emergency and safety equipment in accordance with the schedule approved under Tab 14 of Volume 5 of the application. Changes, additions, or deletions to the schedule must be approved in writing by the Department. The schedule must be maintained as part of the operating record at the facility. Inspection program, schedule and records shall be followed in accordance with 40 CFR Part 264.15.

10. The permittee shall comply with the training requirements of 40 CFR Part 264.16. Facility personnel shall successfully complete the approved training indicated in the permit application, under Tab 18 of Volume 1 and Volume 4, Tabs A through I. Verification of this training must be kept with the personnel training records and maintained on-site. Personnel shall not work unsupervised until training has been completed.

11. The permittee shall comply with the general requirements for ignitable, reactive, or incompatible waste of 40 CFR Part 264.17 concerning precautions to prevent accidental ignition or reaction of ignitable and reactive waste. Signs showing the wastes by the name they are known best, their EPA hazardous waste number, and total storage capacity in accordance with the tables shown on pages 2 and 3 of 18 of this permit, shall be placed in a highly visible location at each bay. "No Smoking" signs shall be conspicuously posted at each location where ignitable wastes are stored and whenever flammable gases are generated. "Keep Out - Authorized Personnel Only" signs shall be placed at the hazardous waste treatment unit whenever treatment of wastes is occurring.

12. The permittee shall operate the hazardous waste facility in accordance with the preparedness and prevention procedures outlined in Volume 1 under Tab 17 of the permit application, and the requirements of 40 CFR Part 264, Subpart C. Required equipment and communication systems at the facility shall be installed, operated, and maintained as indicated in the permit application section referred to above.

13. The contingency plan must be amended and distributed to the appropriate agencies if any criteria of 40 CFR Part 264.54 are met. Amendments to the plan must be submitted and approved in writing by the Department.

SPECIFIC CONDITIONS: (cont'd)
Part I. - General (cont'd)

14. The permittee shall follow the emergency procedures specified in 40 CFR Part 264.56, approved in Volume 2 of the permit application, and contingency plan. The permittee shall give proper notification if an emergency situation arises, and within fifteen (15) days shall submit to the Department a written report which includes all information required in 40 CFR Part 264.56(j), and as described under Tab B of Volume 2 of the contingency plan.

15. The permittee shall post at conspicuous locations information on emergency equipment and evacuation procedures in accordance with 40 CFR Parts 264.52(e) and (f).

16. The permittee shall keep close to the telephone from where emergency calls will most likely be made, a list containing the names and telephone numbers of the emergency coordinators required in 40 CFR Part 264.55, and of the emergency response institutions and agencies as described in 40 CFR Part 264.52(c).

17. The contingency plan shall be maintained as a separate independent document which meets the regulatory requirements of DER Form 17-730.401(2), Part II, A., 4., (b).

18. The permittee shall comply with the use of manifest system requirements of 40 CFR Part 264.71, and the manifest discrepancy requirements of 40 CFR Part 264.72.

19. The permittee, when shipping hazardous waste off-site, shall comply with the requirements of 40 CFR Part 262, Subpart B, and in accordance with the permit application, under Tab 20 of Volume 1.

20. The permittee shall comply with the requirements of 40 CFR Parts 264.73, 264.74, and 264.75, and as described in Volume 1 under Tab 21 of the permit application. The permittee shall keep written operating records at the facility which includes:

- The description and quantity of each hazardous waste;

- The location of each hazardous waste within the facility and quantity at each location;

- The results of the waste analysis;

- A summary report and details of incidents that require implementation of the Contingency Plan;

SPECIFIC CONDITIONS: (cont'd)
Part I. - General (cont'd)

- Copy of manifest;

- Notice of generators;

- The results of monitoring and inspections (for 3 years);

- Closure plan and cost estimates;

- Annual certification of hazardous waste minimization.

These records must be maintained at the facility until completion and certification of closure.

21. Analytical procedures shall be consistent with EPA Manual SW-846 Test Methods for Evaluating Solid Waste (latest edition), or Department approved equivalent method. The Sampling and Analysis Plan shall be in accordance with Characterization of Hazardous Waste Sites, A Methods Manual, Volume II, Available Sampling Methods, E-600/4-83-040.

22. The permittee shall apply for a closure permit at least 180 days prior to beginning closure at the facility as required by Florida Administrative Code Rule 17-730.260.

23. The permittee shall apply for permit renewal one hundred thirty five (135) days before the expiration date of this permit, and comply with all other requirements of the Florida Administrative Code Rule 17-730.300.

24. The Department may modify the conditions of this permit if any of the conditions of Florida Administrative Code 17-730.290(1) apply.

25. Pursuant to Rule 17-730.290, Florida Administrative Code, this permit may be modified if additional information becomes available indicating that the provisions of Section 3004(u) of the Hazardous and Solid Waste Amendments of 1984 (HSWA) apply to this facility. At that time, this permit may be modified to address the requirements of Section 3004(u) of HSWA if the State has been authorized for these provisions, or alternately, the Environmental Protection Agency would issue a separate federal permit addressing Section 3004(u) requirements.

26. The permittee shall maintain compliance with the financial requirements of 40 CFR 264 Subpart H.

SPECIFIC CONDITIONS: (cont'd)
Part I. - General (cont'd)

27. All documents submitted pursuant to the conditions of this permit shall be accompanied by a cover letter stating the name and date of the document submitted, the number(s) of the specific condition(s) affected, and number and project name of the permit involved. The documents shall be submitted in triplicate to:

Deputy Assistant Secretary
Department of Environmental Regulation
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

Attn: Hazardous Waste Permitting Program

Part II. - Container Storage Conditions

1. The permittee shall comply with the type, quality, and specification of drums utilized for storing hazardous wastes as described in Volume 1 under Tab 22 of the permit application. Any change in container type shall be previously approved by the Department.

2. The permittee is allowed to store the hazardous wastes approved on page 2 of 18 and page 3 of 18 of this permit in the approved storage area only. Containers must conform to DOT specification(s) and be managed in accordance with the approved operational plan. Containers shall be kept closed except when adding or removing waste and be handled in a manner that will not allow the containers to rupture or leak. If a container holding hazardous waste is not in good condition, or begins to leak, the waste shall be transferred to another container in good condition.

3. The permittee shall use containers which are compatible with the hazardous waste to be stored to comply with the requirements of 40 CFR Part 264.173.

4. The permittee shall not store incompatible waste in containers or place it in unwashed containers that have previously held incompatible waste.

5. The permittee shall inspect the container storage area in accordance with the schedule and procedures approved in Volume 5 under Tab 14 of the application and 40 CFR Part 264.174.

SPECIFIC CONDITIONS: (cont'd)
Part II. - Container Storage Conditions (cont'd)

6. Incompatible wastes shall not be stored in bays having the same containment system and, shall be physically separated by a dike, berm or other approved device in accordance with 40 CFR Part 264.177(c) requirements.

7. The permittee shall, prior to the storage of hazardous waste, determine the compatibility of each waste to be added to a storage area according to the procedures identified in Volume 1 under Tab 22 and Volume 4 under Tab F of the permit application and EPA publication 600/2-80-076 "A Method for Determining the Compatibility of Hazardous Waste" (latest edition).

8. Hazardous waste must be compatible with the secondary containment system and liner of the storage bay.

9. Spilled or leaked waste and accumulated precipitation must be removed from the inside collection sump area, analyzed and disposed of in accordance with Volume 1 Tab 22 page 22, of the application and 40 CFR Part 264.174(b)(5).

10. The permittee shall comply with the 50 feet setback rule contained in 40 CFR Part 264.176.

11. The permittee shall comply with the requirements of 40 CFR Part 264.35 and maintain a minimum aisle space between drums and between a drum and a wall of two (2) feet for drums containing free liquids. For drums not containing free liquids the arrangement shown in Figure MEP-1A of the application shall be followed. Any change to the container arrangement in any unit shall be previously approved by the Department.

Part III - Treatment

1. The permittee is authorized to treat via solidification only those hazardous wastes detailed on Attachment 10 of Volume 5 of the application in the filter press.

2. The permittee shall conduct inspections of the filter press, associated equipment and containment devices serving the press in accordance with the schedule detailed in Section 23 of Volume 5 of the application.

3. Incompatible wastes shall not be added to the filter press. Wastes which are incompatible with the construction material of the press shall not be placed in the press.

SPECIFIC CONDITION (cont'd)
Part III - Treatment (cont'd)

4. Wastes shall not be placed in the filter press which was previously utilized to solidify an incompatible waste or material until the press is cleaned.

5. The permittee shall ensure the proper disposition of the waste filtrate generated during the solidification process. Disposition shall be in a department approved manner.

Part IV - Containment Trench

1. Spillage of any wastes which enter the containment trench at the loading dock shall result in timely removal and documented disposal of the material. In addition, the containment trench shall be decontaminated and documentation provided verifying cleaning of the trench and proper disposal of the rinse water.

2. The permittee shall visually inspect stormwater accumulating within the sand filter/activated carbon system sump prior to releasement of these waters to the retention pond. Stormwater exhibiting an iridescent sheen shall be disposed in a Department approved manner.

Part V - Unknown Wastes

1. Any unknown wastes received by Universal shall be segregated from all other hazardous wastes until the wastes are identified by analyses and a compatibility group is determined. The segregated area utilized for the unknown wastes shall have a separate containment system not contingent with the containment systems provided for the known wastes.

2. The permittee shall be authorized to receive and temporarily store any RCRA hazardous waste resulting from emergency cleanup activities arising from outside sources for which the permittee has provided professional services. The unknown waste(s) shall be handled, transported, analyzed and stored in accordance with the "Procedure for Handling Unknown Waste" contained in Volume 1 under Tab 19 of the application.

3. The permittee shall perform the following steps when an unknown waste is received, during an emergency incident, which based upon waste analysis is not contained on the permittee's list of authorized wastes presented in Volume 5 under Attachment 10:

a. Notification to the Department detailing waste type and quantity; and

b. Removal of waste within 10 working days to permitted treatment, storage disposal facility.

SPECIFIC CONDITIONS (cont'd)
Part VI - Waste Minimization

1. Pursuant to 40 CFR Part 264.73(b)(9), and Section 3005(h) of RCRA, 42 U.S.C. 6925(h), the permittee must certify, no less often than annually, that:

A. The permittee has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined by the permittee to be economically practicable; and

B. The proposed method of treatment, storage or disposal is the most practicable method available to the permittee which minimizes the present and future threat to human health and the environment.

C. The permittee shall also maintain copies of certification in the facility operating record as required by 40 CFR Part 264.73(b)(9).

2. The Waste Minimization program required under VI. 1.A. and VI. 1.B. above should as a minimum address the following topics:

A. Identify each hazardous waste stream with the source of generation.

B. Types and amounts of hazardous waste that are generated at the facility.

C. Present and proposed method of treatment, storage or disposal that is available to the permittee.

D. Description of techniques implemented in the past for hazardous waste reduction and their effectiveness.

E. An evaluation of technically and economically feasible hazardous waste reduction techniques.

F. A program and schedule for implementing the selected hazardous waste reduction technique.

SPECIFIC CONDITIONS (cont'd)
Part VII - Land Disposal Restriction

1. General Restrictions

   A. 40 CFR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Prohibitions on storage of certain hazardous waste in tanks or containers is also addressed. The Permittee shall maintain compliance with the requirements of this Part. Where the permittee has applied for an extension, waiver or variance under this part the permittee shall comply with all restrictions on land disposal under this part once the effective date for the waste has been reached pending final approval of such application.

   B. For the purposes of 40 CFR Part 268 "Land Disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.

2. Land Disposal Prohibitions and Treatment Standards

   A. Prior to May 8, 1990, wastes which are otherwise prohibited from land disposal under 40 CFR Part 268.33(f) may be disposed of in a landfill or surface impoundment which is in compliance with the requirements of 40 CFR Part 268.5(h)(2) provided the requirements of 40 CFR Part 268.8(a) are met.

   B. A restricted waste identified in 40 CFR Part 268 Subpart C may not be placed in a land disposal unit without further treatment unless the requirements of 40 CFR Part 268 Subparts C and/or D are met.

SPECIFIC CONDITIONS (cont'd)
Part VII - Land Disposal Restriction

C. The storage of hazardous wastes restricted from land disposal under 40 CFR Part 268 in tanks, containers or land units in prohibited unless the requirements of 40 CFR Part 268 Subpart E are met.

Issued this 5th day of July 1990.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Richard D. Garrity

Dr. Richard D. Garrity, Ph.D.
Deputy Assistant Secretary
Southwest District

Q. REFERENCES

REFERENCES

1. Universal Waste & Transit, Inc. Operation Permit Application dated November 1989.

2. Universal Waste & Transit, Inc. RCRA Comprehensive Evaluation Inspection Report dated March 26, 1991.

3. Universal Waste & Transit, Inc. Operating Permit dated July 3, 1990.

4. Florida Geological Survey, Report of Investigation, No. 82 by Louis H. Motz.

5. Florida Statistical Abstract.

6. Stauffer Chemical Superfund site regulatory files.

7. Helena Chemical Superfund site regulatory files.

8. EPA RCRA Facility Assessment (RFA) Checklist date March 1989.

9. Telephone Conversation with Mr. John Taylor of Universal Waste & Transit on March 22, 25, and 31, 1993 and September 1, 1993.