

DO NOT FILE ANY
CORRESPONDENCE AFTER
Sept 1997 IN THIS FILE



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

Mr. Lenox Bramble, Director
Manatee County Public Works Dept.
PO Box 25010
Bradenton, FL 34206

September 29, 1997

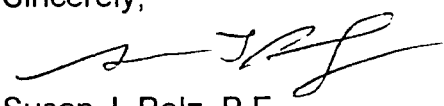
RE: Lena Road Landfill, Permit No. : SO41-211176, Manatee County
Financial Assurance Cost Estimates

Dear Mr. Bramble:

This letter is to acknowledge the receipt of the inflation-adjusted cost estimates, prepared by HDR Engineering, Inc., dated August 26, 1997 (received August 28, 1997), closure and long-term care of the Manatee County Lena Road Landfill. The inflation-adjusted cost estimates dated August 26, 1997, (total for closure \$27,274,831, including \$11,500 for waste tires; and \$413,516/year x 30 years=\$12,405,502 total for long-term care), are **APPROVED for 1997**. The next annual update (revised or inflation-adjusted estimates) is due no later than September 1, 1998, or at the time of permit renewal, whichever occurs first.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of FAC 62-701.630.

Sincerely,


Susan J. Pelz, P.E.
Solid Waste Section
Southwest District

sjp

cc: Fred W. Sebesta, P.E., HDR Engineering, 5100 W. Kennedy Blvd., Ste. 300, Tampa, FL 33609-1840
David Brangaccio, Manatee Co., 4410 66th St. West, Bradenton, FL 34210
Fred Wick, FDEP, Tallahassee, w/attachment
Robert Butera, P.E., FDEP Tampa
Kim Ford, P.E., FDEP Tampa



Department of Environmental Protection

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3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

September 26, 1997

Mr. Ben Alex
Solid Waste Management
Manatee County
3333 Lena Road
Bradenton, FL 34202

Re Lena Road Landfill Stage III Gradient, Corrective Actions
Permit No.: SO41-211176, Manatee County

Dear Mr. Alex:

The Department has no objections to the corrective actions concerning the installation of a weir, ditch block or inlet type structure, in the Stage III stormwater conveyance swale and stormwater pumping (if necessary) as proposed in your September 12, 1997 letter subject to the following condition:

- Pumping of stormwater into the swale shall be controlled to maximize recharge in the swale, and to prevent the overflow and subsequent discharge of pumped stormwater from the swale.

The proposed activities are considered experimental and will serve as a demonstration to be used as the basis of approval as part of the permit application for landfill operation and maintenance. Therefore, a permit modification is not required. The Department appreciates all efforts being made to resolve this matter.

On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab

cc: Gus DiFonso, Manatee County
Terry Tiedemann, P.E., HDR
Daryl Flatt, P.E., SWFWMD
Randy Cooper, P.E., FDEP Tampa, ERP Section
RA Robert Butera, P.E., FDEP Tampa, Solid Waste Section
Allison Amram, P.G., FDEP Tampa, Solid Waste Section

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date:

9/29/97

Number of pages including cover sheet:

2

To:

Ben Alex

MARTIN LARRY

Phone:

(941) 748-5543

Fax phone:

(941) 745-3451

CC:

From:

Tom Ford

Phone:

(813) 744-6100

X282

Fax phone:

(813) 744-6125

REMARKS:

☐ Urgent

☐ For your review

☐ Reply ASAP

☐ Please comment

LETTER ON
STAGE III

SEE YOU WEDNESDAY 9:15 AM

Transmit Confirmation Report

No. : 003
Receiver : 8-1-941-795-3451
Transmitter : WASTE MGT TAMPA SWDIST
Date : Sep 29 97 8:16
Time : 02'05
Mode : Norm
Pages : 02
Result : OK

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX
FAXED

Date:

9/29/97

Number of pages including cover sheet:

2

To:

TERRY TIDSBMAN
HON

Phone:

2871960

Fax phone:

2822430

CC:

From:

Jim Ford

Phone:

(813) 744-6100

x 382

Fax phone:

(813) 744-6125

REMARKS:

☐ Urgent

☐ For your review

☐ Reply ASAP

☐ Please comment

Letter on stage III

Hope to see you

Wednesday 9:15 am

Jim

Transmit Confirmation Report

No. : 002
Receiver : 9-282-2430
Transmitter : WASTE MGT TAMPA SWDIST
Date : Sep 29 97 8:13
Time : 01'04
Mode : Norm
Pages : 02
Result : OK

Jobs 13

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD.

Date 9/26/97 Subject CENS ROAD LANDFILL
Time 8:30 Permit No. _____
County MANATEE
M Ben Alex Telephone No. (941) 7485543
Representing MANATEE COUNTY
☐ Phoned Me ☒ Was Called ☐ Scheduled Meeting ☐ Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting DISCUSSED GRADIENT
& CONSERVATION ACTIONS FOR STATE III
① LCRS VIDEO & CLEANING WITHIN 30 DAYS
② WGN & PUMPING STORMWATER WITHIN
2 WEEKS
③ BA. WILL WRITE LETTER PROPOSING TO
REPLACE PZ 15 CLOSE TO SLURRY WALL, AND
INSTALL PZ OUTSIDE SLURRY WALL AT PZ-16, AND
INSTALL STAFF GAUGE IN CREEK OUTSIDE PZ-17.
④ SURVEY ALL ELEVATIONS OF NEW PZ'S

(continue on another
sheet, if necessary)

Signature [Signature]

Title _____



Lena Rd

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

CERTIFIED MAIL
RETURN RECEIPT

SEP 18 1997

Mr. Gus DiFonzo
Division Manager
Manatee County
P O Box 25010
Bradenton, FL 34206

**Re: Emergency Detonation or Thermal Treatment of Certain
Hazardous Waste, 62-730.320 FAC (enclosed)**

Dear Mr. DiFonzo:

The purpose of this letter is to encourage active coordination between the Solid Waste Operation at landfills (where treatment of the referenced materials occur), and the persons (Fire Department, Bomb Squad, etc.) responsible for the safe detonation of explosives and this Department.

It has been brought to my attention by Waste Management staff that the referenced treatment may be occurring at some solid waste landfills permitted by this Department. The Department is concerned that the referenced treatment may be occurring at locations in the landfill which may be in close proximity to methane gases escaping from passive vents and/or flares at actively vented landfills. Two recent explosions occurring at leachate sumps at solid waste landfills resulted in injury to personnel. These explosions occurred at pump stations where leachate was being removed from the sumps and the methane gases contained within the pump station were exposed to an ignition source. In addition the Department is concerned with landfill fires, possible damage to HDPE liners utilized in closures and depressions in intermediate cover exposing waste.

The Department requests that the responsible solid waste operation submit (within 90 days of receipt of this letter) a scale site plan of the facility identifying the specific location where the referenced treatment will occur. You are requested to include sites where detonations occur on properties adjacent to solid waste landfills. If no detonations occur at your facility please respond accordingly. The site plan should include the locations of flares, passive vents, leachate sumps, all occupied buildings on site, and their respective distances from the location of these detonations.

Mr. Gus DiFonzo
Manatee County

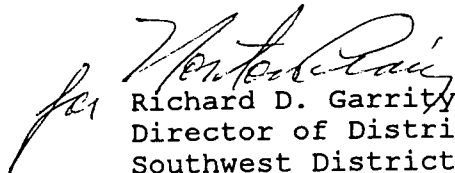
SEP 18 1997

The Department's Solid Waste and Hazardous Waste Sections will review these submittals and respond to the Solid Waste Permittee as to the approved locations for that particular facility. The Solid Waste Section should be contacted for authorization for all further modifications to the gas vent, building, and sump relocations.

In accordance with 62-730.320(1) "Certain hazardous wastes, due to their origin, age, and storage conditions have become a hazard to their surroundings. Because of the flammable, shock sensitive and explosive nature of the wastes, there is an immediate danger and imminent hazard to persons and property in the surrounding area. Therefore an authorization is granted for the emergency detonation or treatment of reactive hazardous wastes, as defined in FAC Chapter 62-730." The Department requests that all authorizations be requested in accordance with 62-730.320(1)(a) which states "The person having custody of the waste contacts the Department and obtains oral or written permission prior to the detonation or treatment."

The authorized person for detonating the waste such as the Fire Department, Bomb Squad, etc. should coordinate with the solid waste operation to assure all further detonations will occur at the Department approved locations. The Department requests your cooperation on this matter and thanks you in advance for protecting the environment and providing a safe area within the landfill. If you have any questions concerning this letter you may contact Bob Butera in the Solid Waste Section at 813-744-6100, Ext. 451 or William Crawford in the Hazardous Waste Section at 813-744-6100, Ext. 372.

Sincerely,


for Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

Attachment

cc: Robert Butera, P.E., FDEP
William Crawford, FDEP
Mr. Len Bramble, , Director, Manatee County Public Utilities
Lt. George F. Harris, P.E., Commander
Manatee County Sheriff's Department
Kim Ford, P.E., FDEP
Allison Amram, P.G., FDEP
Danielle Nichols, FDEP

P 344 402 932

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

PS Form 3800, April 1995

Sent to <i>Louis DiFonzo</i>	
Street & Number <i>Manatee County</i>	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date SEP 1 8 1997	

EXPLOSIVE

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

GUS DIFONZO
DIVISION MANAGER
MANATEE COUNTY
P O BOX 25010
BRADENTON, FL 34206

4a. Article Number

P 344 402 932

4b. Service Type

- ☐ Registered ☒ Certified
- ☐ Express Mail ☐ Insured
- ☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

19
SEP

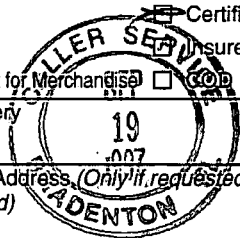
5. Received By: (Print Name)

W. J. Bad

6. Signature: (Addressee or Agent)

X

8. Addressee's Address (Only if requested and fee is paid)



UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

State of Florida
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

RECEIVED
SEP 22 1997
D E P

Bob Butera - Solid Waste

GOVERNMENT

Public Works Department

TELEFAX COVER MEMO**PLEASE DELIVER THE FOLLOWING PAGE(S)**

TO: Kim FORD
FROM: Ben Alex 941/748-5543
DATE: 9-26-97 Ext. 5444
SUBJECT: STAGE III ADD LETTER

Please call upon receipt _____ Please handle confidentially _____

COMMENTS:

Total number of pages including cover memo: 2

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE.



September 18, 1997

Mr. Ben Alex
Solid Waste Technical Coordinator
Manatee County Solid Waste Department
3333 Lena Road
Bradenton FL 34202

**RE: Manatee County Lena Road Landfill
Stage III Ground Water Gradient**

Dear Ben,

Following our discussion concerning your September 12th letter to Kim Ford, I am in full agreement with you that long-term pumping is not the solution to this problem. This is primarily due to high operating and maintenance costs associated with maintaining a pumping system throughout the life of the landfill and the 30-year post closure period.

Per our conversation, it is my understanding that the groundwater elevations in the nearby monitoring well varies between 25 and 27 (N.G.V.D.). According to the *July 1994 Stage III Leachate Collection System Modification Plans* the invert elevations of the 8" perforated leachate collection pipes varies between 27.6 and 29.0. If we assume that these elevations are both based on the same vertical datum, then the perforated leachate collection pipe is not low enough to provide an inward gradient even if it is functioning flawlessly.

HDR believes the following construction would more appropriately eliminate the problem and to ready Stage III for future waste disposal:

1. Extend and provide accessible cleanouts to the existing 8" perforated leachate collection pipes.
2. Install parallel perforated leachate collection pipes with accessible cleanouts. Invert elevations for this new system will range between 23 and 24.5 N.G.V.D.
3. Relocate the existing leachate pump station No. 3 to the berm.

If you have any questions please do not hesitate to call me at (813) 282-2393.

Respectfully,

HDR ENGINEERING, INC.

A handwritten signature in dark ink, appearing to read 'Terry Tiedemann', is written over a horizontal line.

Terry Tiedemann, PE
Project Manager

cc: Neal Poteet

HDR Engineering, Inc.

ENCLOSURE

Suite 300
5100 W. Kennedy Boulevard
Tampa, Florida
33609-1840

Telephone
813 282-2300
Fax
813 282-2449

Fax Sheet

Date 9-26-97Number of Pages (includes cover page) — 2

Message To

Name: <u>Kim Ford</u>	Fax number called: <u>744-6125</u>
Firm:	
City:	State:

If you do not receive all of the pages, please call 813/287-1960 as soon as possible.

From:

Name: <u>Dave Pelham</u>	Department:
Fax number:	Job Number

HDR Engineering, Inc.
Suite 300
5100 W. Kennedy Blvd.
Tampa, FL 33609-1840
813/287-1960
813/282-2430 (Fax)



Telephone Conversation Record

HDR

Project Manatee Operation Permit Renewal Project No. 07982-024-096
Time 11:15 Date 9-26-97
Cell to D. Pelham Phone No. Call from Kim Ford Phone No.

Discussion, Agreement and/or Action

Kim: What if outfall moved 500-800 ft to west so water can back up to provide inward gradient across slurry wall - Suggestion does not appear to impact stormwater design
Kim requested Richard be present @ the meeting

S.C. #48 3 P Air Requirements - check for operation Renewal

Richard sta ~~2345~~ 2343

Plan to ~~sub~~ submit gas design in October.

Kim wants to make sure no surprises @ time of application submittal. Also, DEP does not issue permits with conditions to complete items after issuance.

Transferred Kim to Richard Gibney to discuss NPDES implications of stormwater system

cc: Fred Sebaste
Kim Ford

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX
FAXED

Date:

9/25/97

Number of pages including cover sheet:

6

To:

Ben Alex

MANATEE COUNTY

Phone:

(941) 7485543

Fax phone:

(941) 7953451

CC:

From:

from FORD

Phone:

(813) 744-6100

x 382

Fax phone:

(813) 744-6125

REMARKS:

☐ Urgent

☒ For your review

☐ Reply ASAP

☐ Please comment

CHECK THESE WEIR DETAILS

AND SEE IF IT MIGHT

WORK FOR YOU

IF YOU CLOSE YOUR WEIR

AROUND THE PIPE YOU

WILL HAVE A BOX. MAYBE

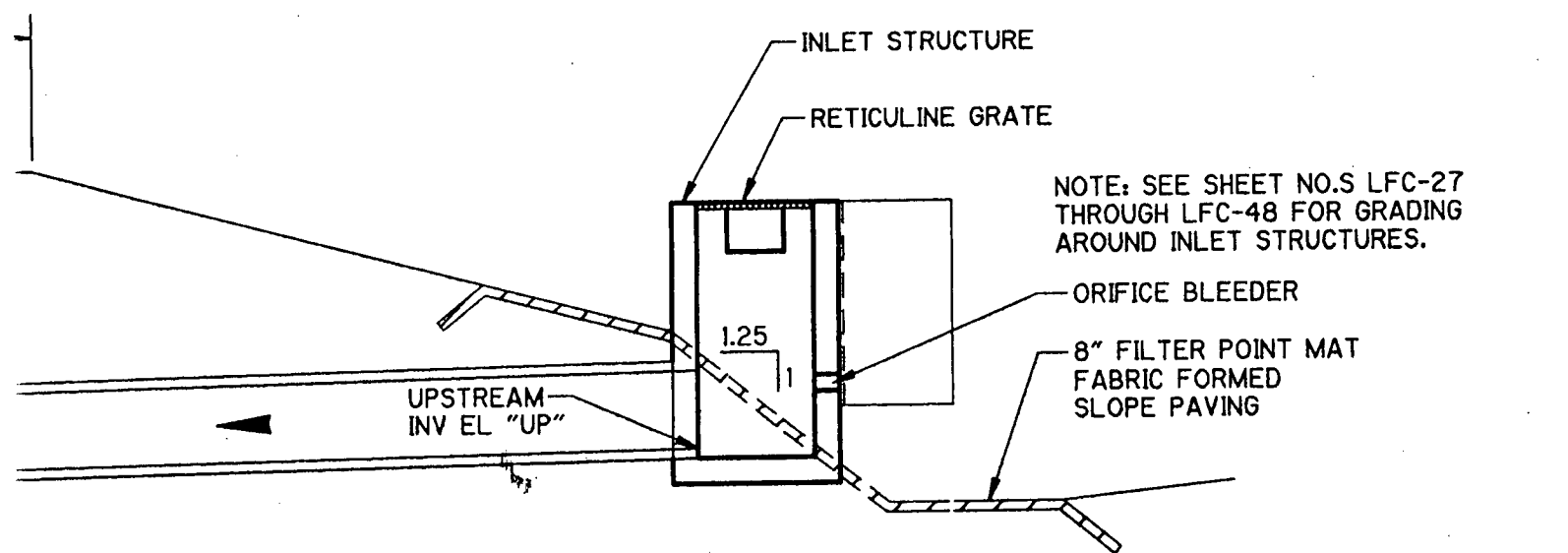
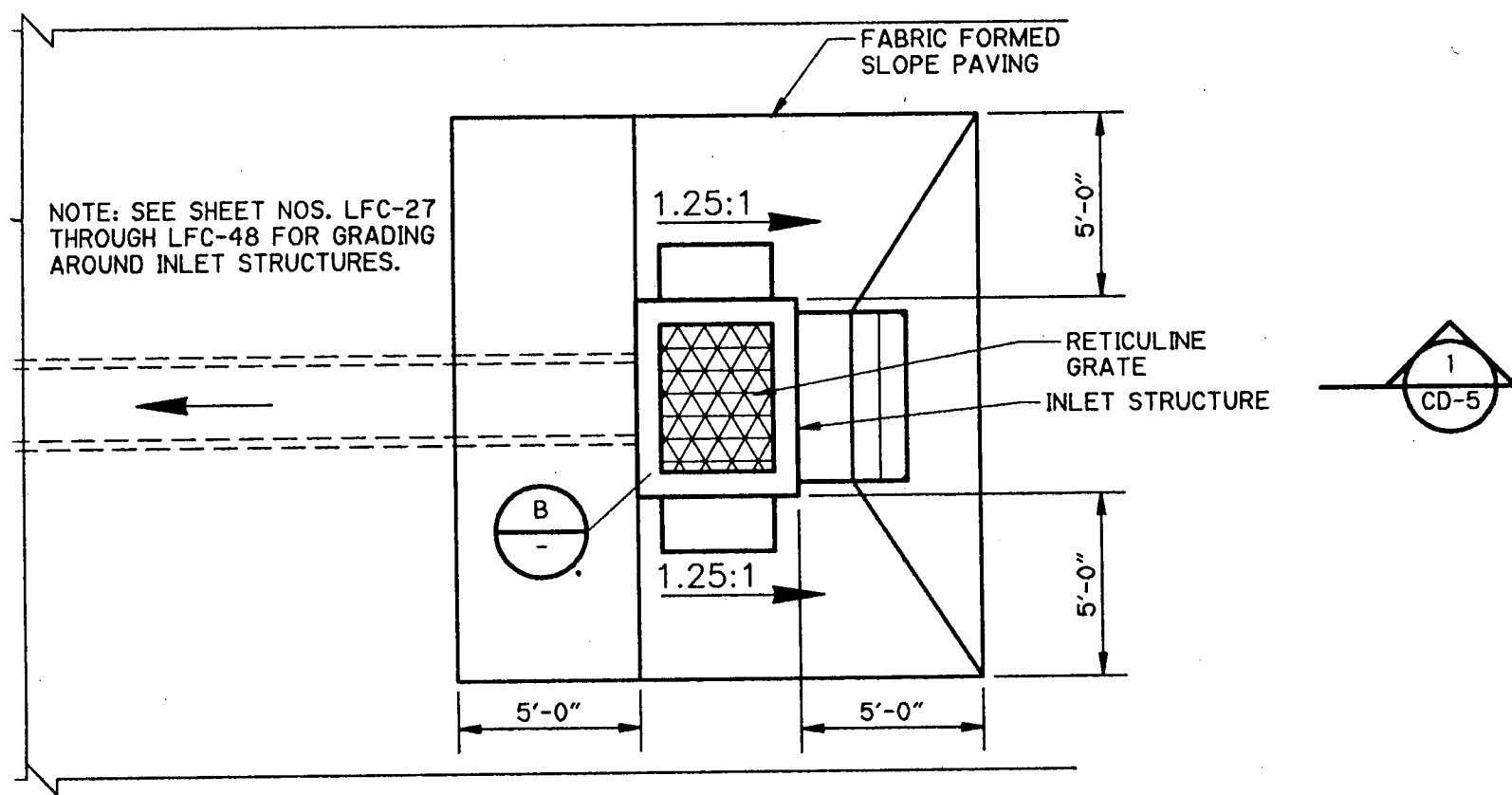
YOU COULD PUT A GRATE ON

LATER

CO

fm

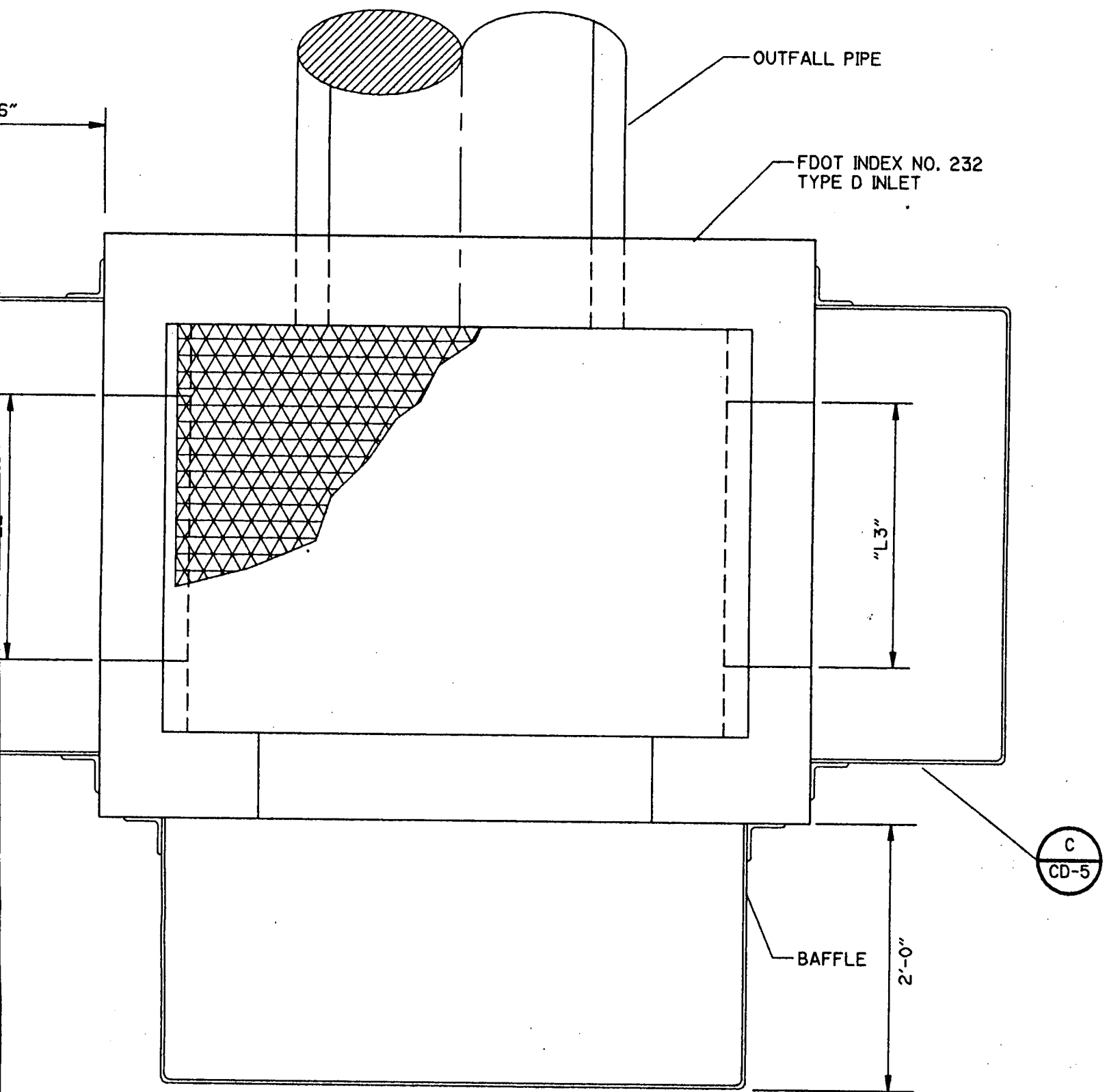
0	24"	RCP	50'	16.50	16.30	MITERED	212
0	36"	RCP		16.50	16.30	MITERED	272
0	36"	RCP	43'	18.50	18.30	MITERED	272

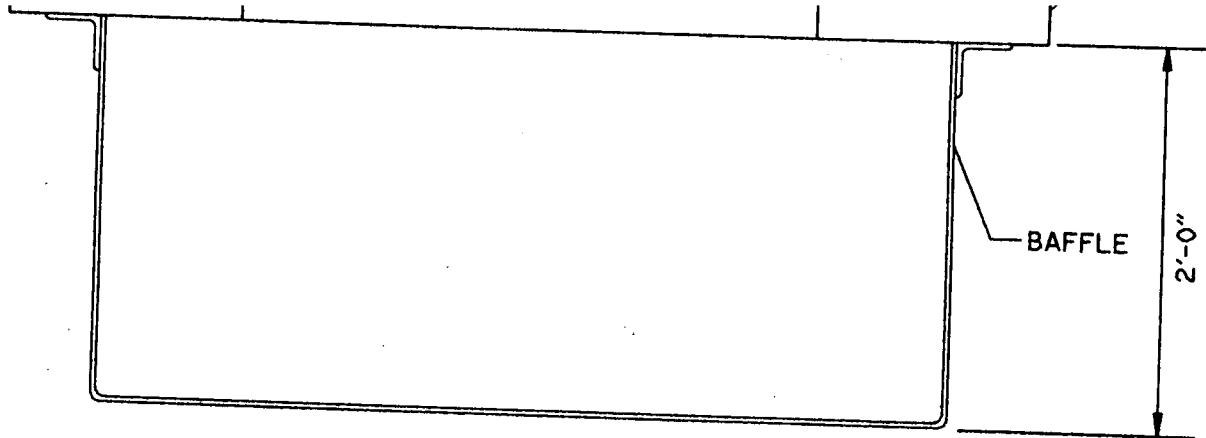


WHERE APPLICABLE
SHORT WALL
SHALL BE CENTERED
HAVE A NOTCH

G

H



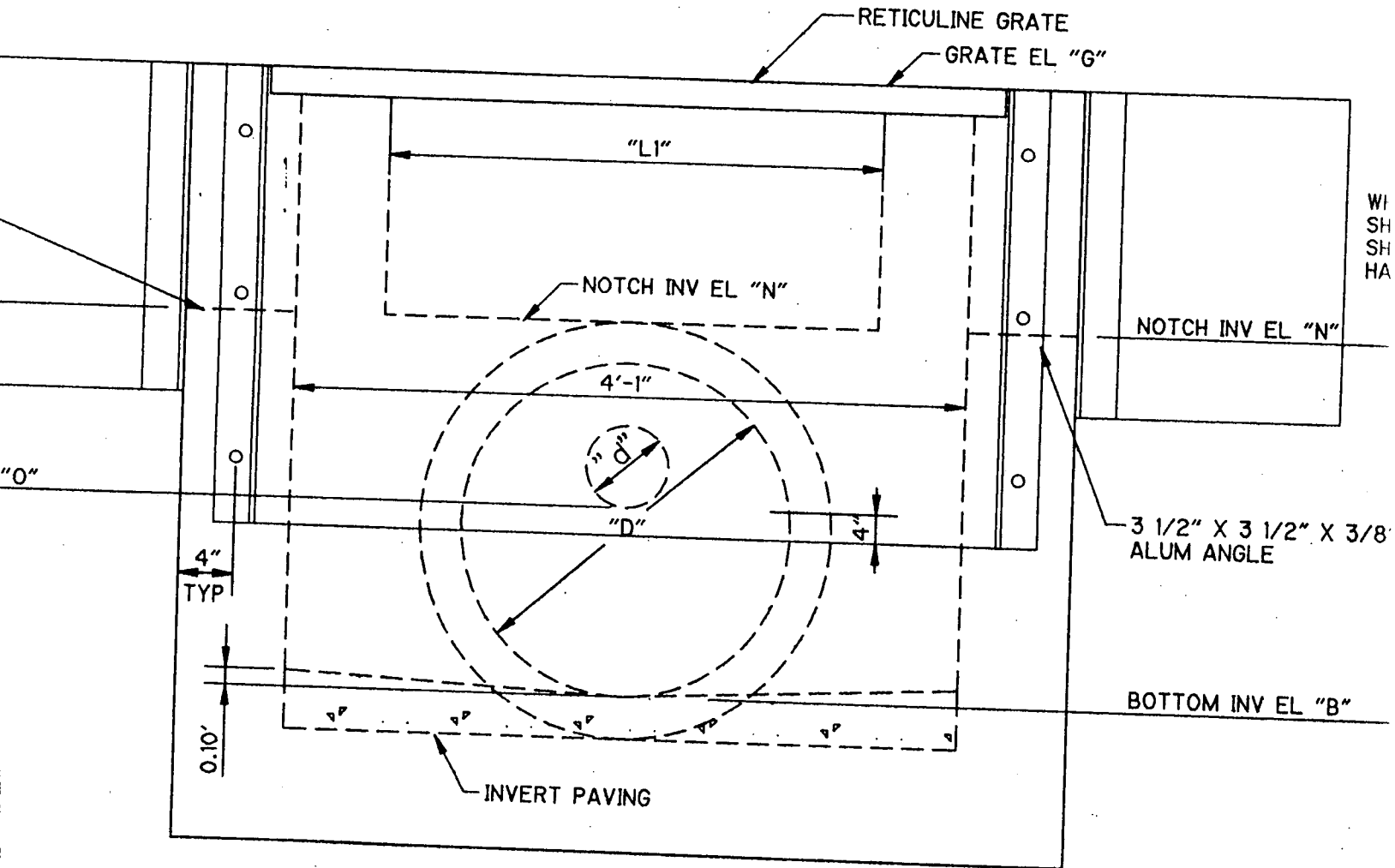


2
CD-5

DETAIL

1" = 1'

B
CD-5



ELEVATION

1" = 1'

2
CD-5

CONFORM

DETAILS

APPLICATION GUIDELINES FOR DITCH BOTTOM AND MEDIAN INLETS

INDEX NO.	TYPE	LOCATION	CAPACITY (CFS)						SAFETY			DEBRIS TOLERANCE	PIPE SIZE LIMITATION		OTHER DESIGN CONSIDERATIONS
			GRATE ONLY		GRATE WITH SINGLE STD. SLOT		GRATE WITH SINGLE TRAV. SLOT						INLET INSIDE WIDTH / MAXIMUM PIPE SIZE		
			FLOW CONDITION		FLOW CONDITION		FLOW CONDITION		TRAFFIC	PEDESTRIAN	BICYCLE				
			A	B	A	B	A	B							
230	A	Limited Access Facilities	7	4	NA	NA	NA	NA	Heavy Wheel Loads	No	No	Good	2'-0" 3'-1"	18" 24"	
231	B	Limited Access Facilities	16	6	NA	NA	NA	NA	Heavy Wheel Loads	No	No	Excellent	3'-8" 4'-2"	30" 36"	
232	C	*Outside CZ	5	4	11	8	7	5	Infrequent Traffic	Yes	Yes	Poor *	2'-0" 3'-1"	18" 24"	* See Note 4. . For back of sidewalk location see Index No. 282
	D	*Outside CZ	14	6	27	15	20	8	Infrequent Traffic	Yes	Yes	Poor *	3'-1" 4'-1"	24" 36"	* See Note 4.
	E	*Outside CZ	10	6	19	13	14	7	Infrequent Traffic	Yes	Yes	Poor *	3'-0" 4'-6"	24" 42"	* See Note 4.
	H	Outside CZ	15	7	24	14	NA	NA	Infrequent Traffic	Yes	Yes	Poor *	3'-0" 7'-8"	24" 66" Or 2-30"	* See Note 4.
233	F	Inside CZ	9	5	NA	NA	NA	NA	Heavy Wheel Loads	Yes	Yes	Poor	2'-0" 4'-0"	18" 36"	
	G	Inside CZ	23	7	NA	NA	NA	NA	Heavy Wheel Loads	Yes	Yes	Poor	4'-4" 5'-0"	36" 42"	
234	J	Inside CZ	9	4	NA	NA	NA	NA	Heavy Wheel Loads	Yes	No	Fair	2'-11" 4'-0"	24" 36"	
235	K	Outside CZ	NA	NA	NA	NA	NA	NA	NA	NA	NA	Good	3'-8" See Index	36"	Debris buildup may occur on Type B fencing.

GENERAL NOTES

- All inlets must be selected to satisfy hydraulic suitability, with proper consideration given to safety and economics.
- CZ denotes clear zone, formerly CRA denoting clear recovery area.
- Alternate G grates should be specified when in salt water environment.
- Inlets without slots or inlets with traversable slots may be located within the clear zone. Inlets C, D and E capacity and debris tolerance may be increased by the addition of a slot. Slotted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. Traversable slots are not adaptable to inlet Type H.
- Special ditch blocks require plan details.
- Pipe size limitations are based on circular Class III, B Wall, Concrete Pipe. Elliptical pipe and corrugated pipe are to be checked for fit in accordance with Index No. 201; metal pipe sizes should be reviewed using 2 3/8" x 1/2" corrugation up through 30" and 3" x 1" corrugation for larger sizes.
- The capacity values shown are approximate and are intended as a guide to assist in describing relative performance. Inlets are assumed to be in a sag condition (No Bypass Flow). The effects of vortex flow have not been considered. Inlet control is assumed. The Designer must verify the outlet conditions and design assumptions before accepting the capacity values shown; outlet constraints are likely to control with minimum pipe sizes.

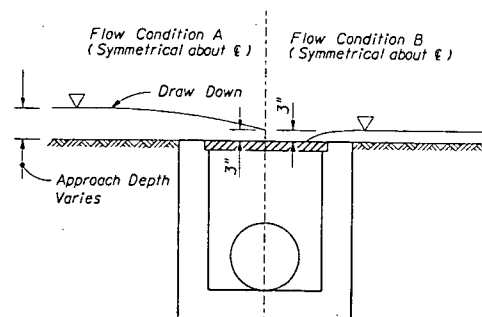
Flow condition A- Orifice Flow Conditions

- Grates are 50% blocked with 3" of water depth above the grate.
- Slots are 25% blocked.
- Orifice Equation: $Q = 0.67 A \sqrt{2gh}$

Flow Condition B- Weir Flow Conditions

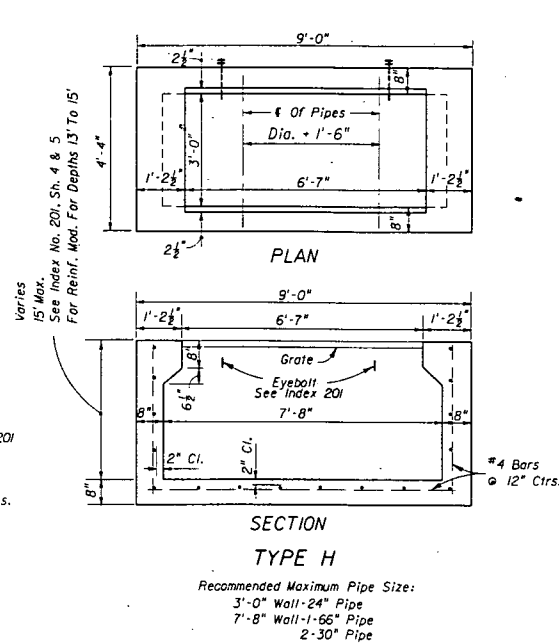
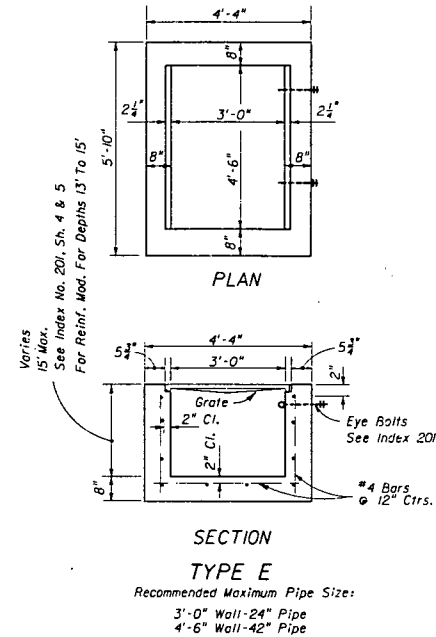
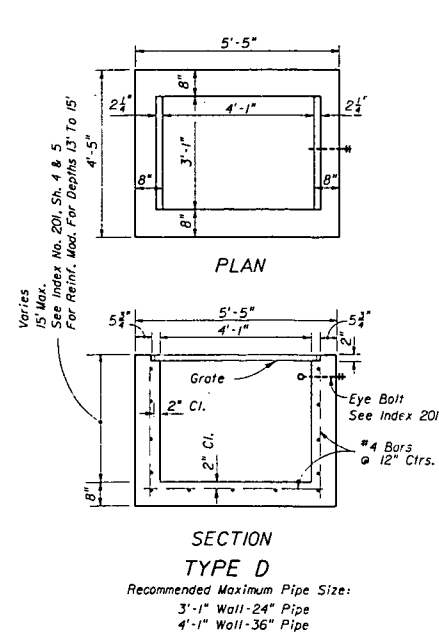
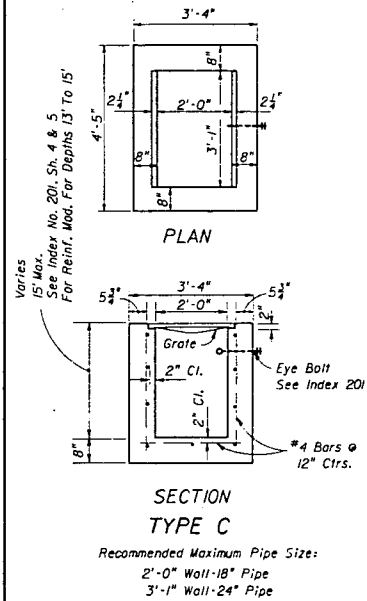
- A 3" head above the top of the inlet is assumed.
- The effective weir length is assumed to be equal to the inlet perimeter with no deduction for the grate or debris.
- For inlets with slots, the effective head for the side of the inlet with the slot is 15" for standard 12" slots and 10" for traversable slots. The slot is assumed to be 25% blocked. In some instances the flow will be in orifice conditions into the slot.
- Weir Equation: $Q = 3.0 L H^{3/2}$

Note: NA = Not Applicable

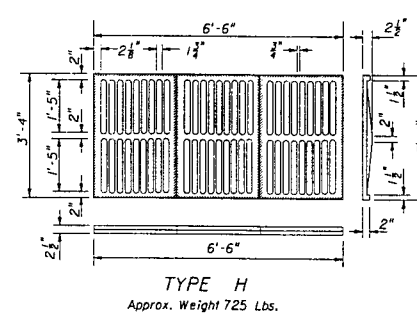
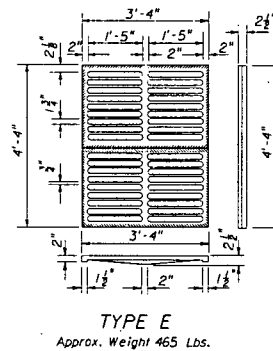
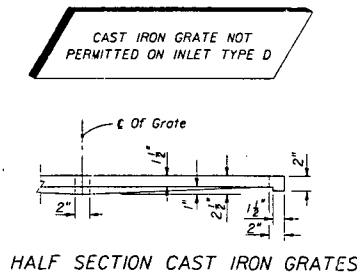
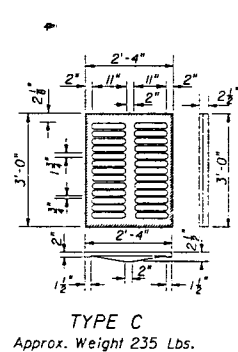


See Note 7

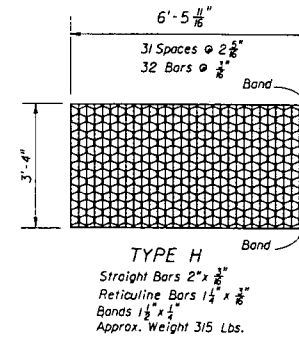
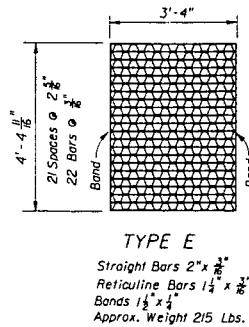
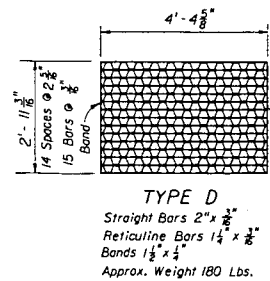
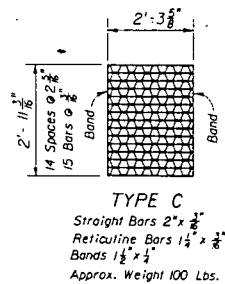
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN					
DITCH BOTTOM AND MEDIAN INLET APPLICATION GUIDE					
Designed By	EGR	Date	09/06/84	Approved By	
Drawn By	HSD	Date	09/06/84	State Drainage Engineer	
Checked By	EGR	Date	09/06/84	Revision No.	Sheet No.
F.H.W.A. Approved: 09/2/84				92	1 of 1
				Index No.	229



INLETS

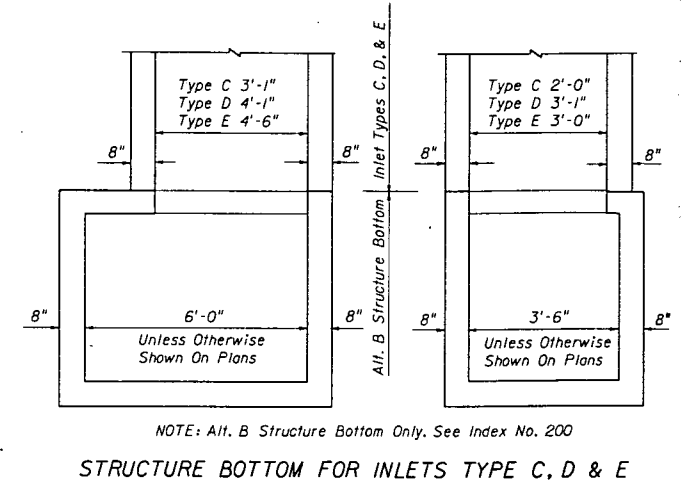


CAST IRON GRATES



NOTICE: Steel Grates Are Required On Inlets With Traversable Slots And On Inlets where Bicycle Traffic Is Anticipated.

STEEL GRATES



NOTE: Alt. B Structure Bottom Only. See Index No. 200

GENERAL NOTES

- These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas subject to infrequent traffic loadings but are not to be placed in areas subject to any heavy wheel loads.
- Inlets subject to minimal debris should be constructed without slots. Where debris is a problem inlets should be constructed with slots. Slotted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. The traversable slot modification is not adaptable to inlet Type H. Slots may be constructed at either or both ends as shown on plans.
- Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or steel grates may be used on all inlets with non-traversable slots. Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dipped galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
- Recommended maximum pipe sizes shown are for concrete pipe. Pipe sizes larger than those recommended must be checked for fit.
- All exposed corners and edges of concrete are to be chamfered $\frac{3}{4}$ ".
- Pavement to be used on inlets without slots and inlets with non-traversable slots only when called for in the plans; but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.
- Traversable slots constructed in existing inlets shall be paid for as inlets partial, and shall include the cost for slot openings, paving and any required replacement grates.
- Sodding to be used on all inlets not located in paved areas and paid for under contract unit price for Sodding SY.
- For supplementary details see Index No. 201.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN					
DITCH BOTTOM INLETS TYPES C, D, E & H					
Designed By	Notes	Dates	Approved By	State Drainage Engineer	
Drawn By					
Checked By	EGR/JG	07/81	Revision No.	Sheet No.	Index No.
F.H.W.A. Approved: 10/07/80			92	1 of 4	239

Transmit Confirmation Report

No. : 016
Receiver : 8-1-941-795-3451
Transmitter : WASTE MGT TAMPA SWDIST
Date : Sep 25 97 12:35
Time : 06'35
Mode : Norm
Pages : 06
Result : OK

N O T I C E O F M E E T I N G

Today's date: 9/23/97 Writer: K Ford

Date of meeting: Thursday OCT 2

Time: 2pm

Place: White Conf Room

Subject: Leona-Roads Landfill
Ops Permit Renewal

Explanation: To discuss Application, format & content

Requested by: GRAD SEBASTIA - HDR Ph.# 2822402

Names of attendees
other than DER: BEN ALEX - MATTHEW COUNTY

Local Program
notified: ☒/yes ☐/no Attending? _____

Copies to anticipated
in-house attendees: BOB
ALLISON
KIM

Information
copies to: STEVE
DANIELLE

GOVERNMENT

Public Works Department

TELEFAX COVER MEMO**PLEASE DELIVER THE FOLLOWING PAGE(S)**

TO: Kim Ford

FROM: BEN Alex **841/748-5543**
Ext. 5444

DATE: 9-25-97

SUBJECT: weir STAGE III

Please call upon receipt ☐ Please handle confidentially ☐

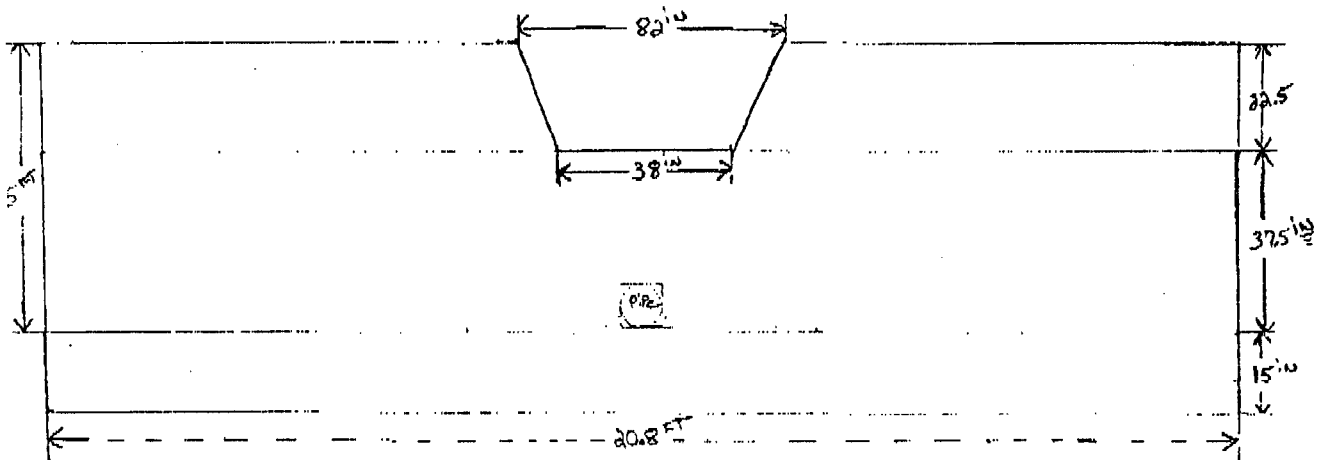
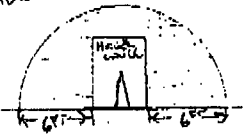
COMMENTS:

Total number of pages including cover memo: 23

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE.

WELL
GCS EE 7
meeting
out 2 w/ton

1600
A Headwall
erosion



300 FT #4
Steel
For wall
approx 150
12" Black

FOOTER ELAV.
1.5' IN BELOW
FLOW LINE
OF OUT FALL
PIPE.

15' IN FOOTER

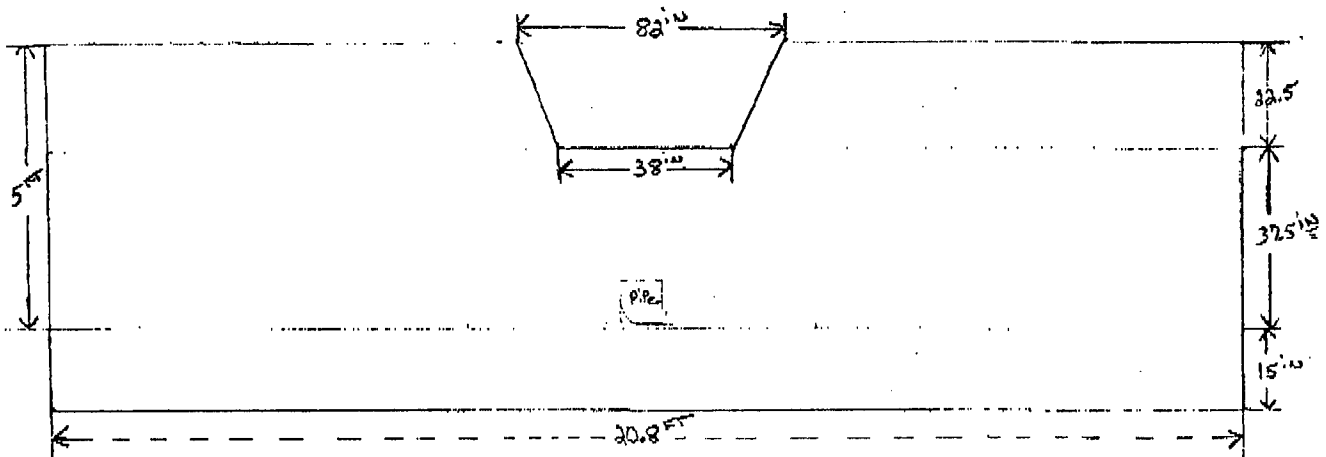
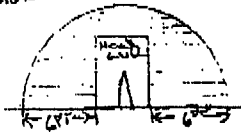
11 1/2" IN WIDE

20.8 FT LONG

41.2 FT² RODS

IN FOOTER

Sandbag
around Headwall
to stop erosion



300 FT
FOR
APP. 12' x 15'

FOOTER 8
1.5 IN BE
FLOW L
PIPE OUT

15' x 15' FOOT
11 1/2 IN C
20.8 FT
41.2 FT
IN FO

GOVERNMENT

Public Works Department

TELEFAX COVER MEMO**PLEASE DELIVER THE FOLLOWING PAGE(S)**

TO: Kim Ford

FROM: BEN Alex **941/748-5543**
Ext. 5444

DATE: 9-22-97

SUBJECT: STATE 3 Gradient

Please call upon receipt ☐ Please handle confidentially ☐

COMMENTS:

Total number of pages including cover memo: 23

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE.

**Manatee County, Lena Road Landfill
Satge III Gradient Data**

1996 DATA								
	May	June	July	Aug	Sep	Oct	Nov	Dec
PZ-12	25.87	28.60	29.14	30.48	29.04	29.51	28.86	29.64
GC-2	30.34	33.07	33.3	33.02	34.52	32.18	30.34	29.47
GRADIENT	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	BAD
PZ-13	26.85	26.74	27.34	29.60	27.09	27.24	26.86	27.64
GC-3	28.17	31.03	31.37	31.32	30.13	28.66	28.26	27.85
GRADIENT	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	BAD
PZ-14	25.84	26.28	26.52	29.75	26.77	26.26	25.85	25.72
GC-4	25.90	28.32	28.26	30.66	27.16	27.29	26.04	26.16
GRADIENT	BAD	GOOD	GOOD	BAD	BAD	GOOD	BAD	BAD
PZ-16	22.16	27.41	28.10	30.15	28.41	28.18	27.85	25.81
GC-5	28.00	28.75	29.84	29.45	28.45	28.68	27.26	27.55
GRADIENT	GOOD	GOOD	GOOD	BAD	BAD	BAD	BAD	GOOD
PZ-17	26.83	28.09	28.79	30.53	28.67	28.67	28.53	27.93
GC-6	30.63	31.71	31.24	29.80	30.81	30.31	30.51	30.39
GRADIENT	GOOD	GOOD	GOOD	BAD	GOOD	GOOD	GOOD	GOOD

1997 DATA							
	Feb	Mar	Apr	May	June	July	Aug
PZ-12	28.65	28.14	29.55	28.84	28.54	29.17	29.60
GC-2	30.24	29.96	32.94	32.68	30.44	33.44	33.14
GRADIENT	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
PZ-13	25.84	26.09	27.76	27.46	26.90	27.19	27.51
GC-3	27.87	27.61	30.56	30.41	27.97	31.01	30.87
GRADIENT	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
PZ-14	25.84	25.32	27.05	25.89	26.02	26.97	26.62
GC-4	25.26	26.4	28.27	27.96	26.24	28.56	27.36
GRADIENT	BAD	GOOD	GOOD	GOOD	BAD	GOOD	BAD
PZ-16	27.63	27.58	28.47	27.92	26.95	27.89	28.12
GC-5	27.98	36.5	29.98	29.55	27.75	29.65	29.62
GRADIENT	BAD	GOOD	GOOD	GOOD	BAD	GOOD	GOOD
PZ-17	28.43	28.3	28.95	28.57	28.55	28.33	29.27
GC-6	30.53	30.62	31.16	31.34	30.28	31.35	30.61
GRADIENT	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD

No Data was collected for January 1997.

Manatee County, Lena Road Landfill Stage III Gradient Comparison

Monitoring Well and Piezometer Data

Piezometer	Top of Casing	Total Depth	Well Above Grade	Well Below Grade	Screen Interval
15-A	39.77	18	3	15	21.77 - 26.77
15	33.20	18	3	15	15.20 - 20.20

Groundwater Elevations

Month	Piezometer 15-A	Piezometer 15	LCRS	Gradient
Jan -96		27.27	25.82	
Feb		27.85	25.82	
Mar		26.47	25.82	
Apr	26.54	26.33	25.82	BAD
May	32.22	26.20	25.82	GOOD
Jun	26.50	26.35	25.82	BAD
Jul	26.52	27.28	25.82	BAD
Aug	26.78	29.36	25.82	BAD
Sept	26.36	27.17	25.82	BAD
Oct	26.42	27.20	25.82	BAD
Nov	25.86	26.85	25.82	BAD
Dec	25.88	26.98	25.82	BAD
Jan -97	No Data	No Data	25.82	
Feb	24.89	26.41	25.82	BAD
Mar	26.39	27.11	25.82	BAD
Apr	27.35	28.29	25.82	BAD
May	26.36	30.22	25.82	BAD
Jun	25.34	28.21	25.82	BAD

AVERAGE 26.67 27.43 25.82

PZ-15 should be reading ground water elevations much lower than given above.

The first attempt to remedy gradient problem was to clean out PZ-15 and PZ-15A. The second attempt will be to have the leachate lines cleaned and T.V. If this does not work, artificially increase ground water elevation outside the slurry wall and move PZ-15 closer to the LCRS, i.e., closer to the draw down.

PZ-15A was installed in April 1996

LCRS is leachate collection and removal system.

GOVERNMENT

Public Works Department

TELEFAX COVER MEMO

PLEASE DELIVER THE FOLLOWING PAGE(S)

TO: Kim Ford

FROM: Ben Alay 941/748-5543
Ext. 5444

DATE: 9-19-97

SUBJECT: STAGE III Gradient Data

Please call upon receipt ☐ Please handle confidentially ☐

COMMENTS:

Total number of pages including cover memo: 2

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE.

Manatee County, Lena Road Landfill Stage III Gradient Comparison

Monitoring Well and Piezometer Data

Piezometer	Top of Casing	Total Depth	Well Above Grade	Well Below Grade	Screen Interval
15-A	39.77	18	3	15	21.77 - 26.77
15	33.20	18	3	15	15.20 - 20.20

Groundwater Elevations

Month	Piezometer 15-A	Piezometer 15	LCRS	Gradient
Jan -96		27.27	25.82	
Feb		27.85	25.82	
Mar		26.47	25.82	
Apr	26.54	26.33	25.82	BAD
May	32.22	26.20	25.82	GOOD
Jun	26.50	26.35	25.82	BAD
Jul	26.52	27.28	25.82	BAD
Aug	26.78	29.36	25.82	BAD
Sept	26.36	27.17	25.82	BAD
Oct	26.42	27.20	25.82	BAD
Nov	25.86	26.85	25.82	BAD
Dec	25.88	26.98	25.82	BAD
Jan -97	No Data	No Data	25.82	
Feb	24.89	26.41	25.82	BAD
Mar	26.39	27.11	25.82	BAD
Apr	27.35	28.29	25.82	BAD
May	26.36	30.22	25.82	BAD
Jun	25.34	28.21	25.82	BAD
AVERAGE	26.67	27.43	25.82	

PZ-15 should be reading ground water elevations much lower than given above.

The first attempt to remedy gradient problem was to clean out PZ-15 and PZ-15A. The second attempt will be to have the leachate lines cleaned and T.V. If this does not work, artificially increase ground water elevation outside the slurry wall and move PZ-15 closer to the LCRS, i.e., closer to the draw down.

PZ-15A was installed in April 1996

LCRS is leachate collection and removal system.

GOVERNMENT

Public Works Department

TELEFAX COVER MEMO**PLEASE DELIVER THE FOLLOWING PAGE(S)**

TO: Kim Ford
FROM: Ben Allen 941/748-5543
DATE: 9-19-97 Ext. 5444
SUBJECT: Wet Detrit

Please call upon receipt _____ Please handle confidentially _____

COMMENTS:

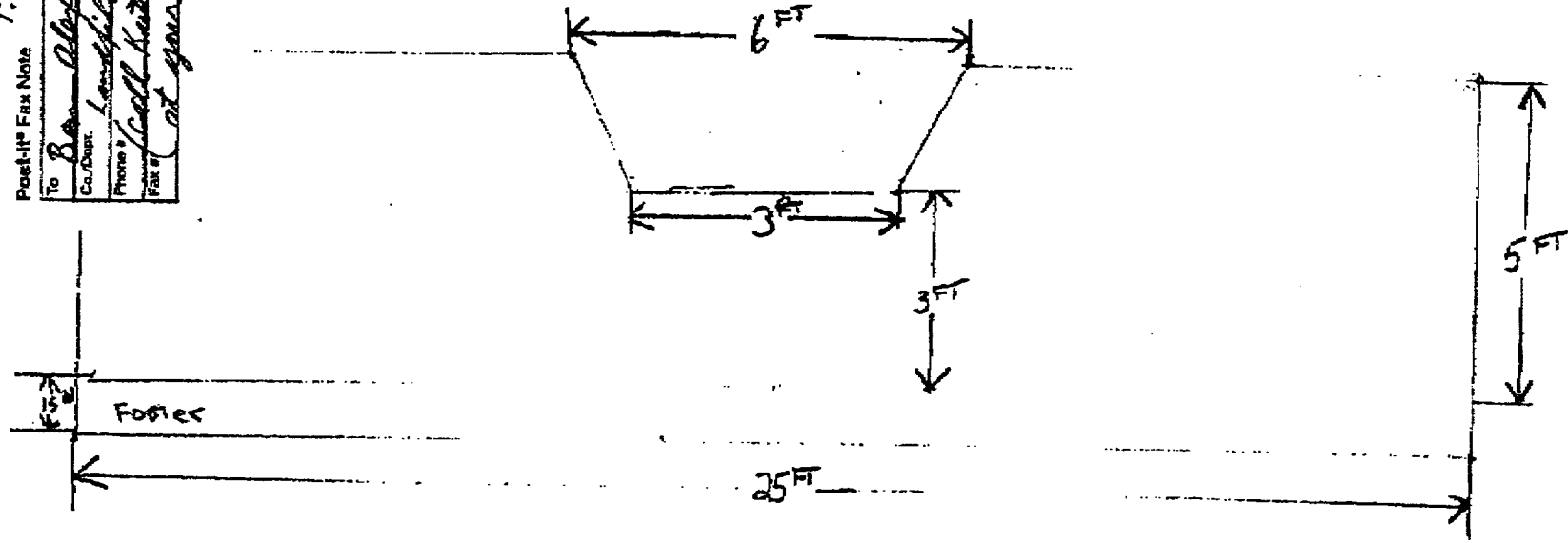
Total number of pages including cover memo: 3

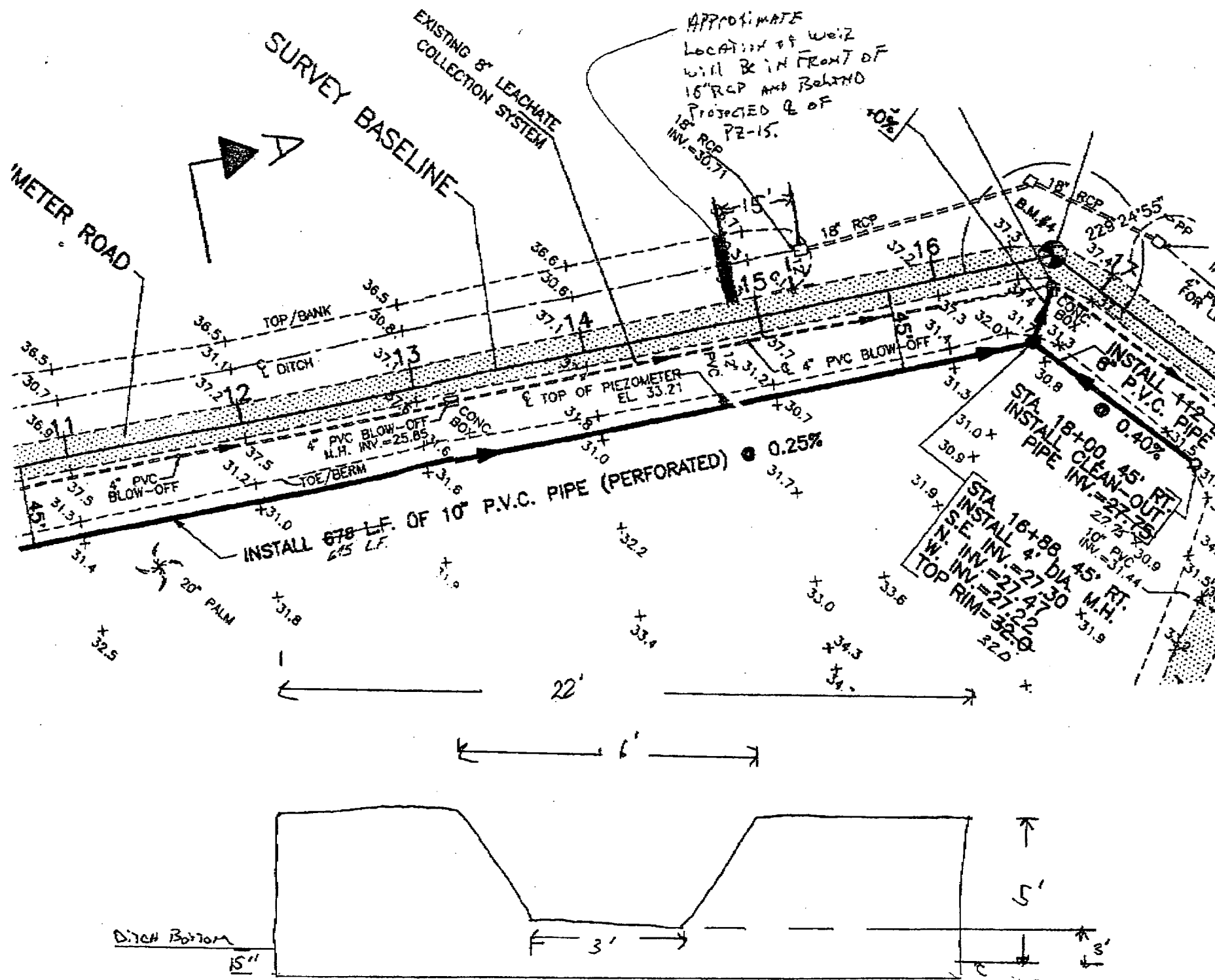
IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE.

PLAN
EXCEL
EROSION
CONTROL

7:30 AM
Post-It® Fax Note 7671

To	Bar Alot	Date	9-18-97	# of pages	1
Co./Dept.	Landfill	From	Kaithr Linder		
Phone #		Co	Heavy - Mfg		
Fax #	(Call Kaithr or John M...)	Phone #			
	(at your convenience)	Fax #			





FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date:

9/19/97

Number of pages including cover sheet:

9

To:

DARIN FLATT
HEMAT SELANKI

SW FUND

Phone:

SC 526 6900

Fax phone:

(941) 483 5975

CC:

From:

Km Ford

Phone:

(813) 744-6100

x 382

Fax phone:

(813) 744-6125

REMARKS:

☐

Urgent

☒

For your review

☐

Reply ASAP

☒

Please comment

Another Slurry Wall GRADIENT problem

(Water is needed to RECHARGE SHALE
OUTSIDE OF SLURRY WALL

QUESTION IS HOW ? WEIR OR INLET
AT EXISTING 18" CULVERT

PLEASE CAD

Hemat says ok

3:15 9/19/97

THX
Km



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

September 19, 1997

Mr. Ben Alex
Solid Waste Management
Manatee County
3333 Lena Road
Bradenton, FL 34202

DRAFT

**Re Lena Road Landfill Stage III Gradient, Corrective Actions
Permit No.: SO41-211176, Manatee County**

Dear Mr. Alex:

The Department has no objections to the corrective actions concerning the installation of a weir in the Stage III stormwater conveyance swale and stormwater pumping (if necessary) as proposed in your September 12, 1997 letter subject to the following conditions:

1. There shall be no construction within 10 feet from the existing nearby culvert.
2. Pumping of stormwater into the swale shall be controlled to maximize recharge in the swale, and to prevent overflow from the weir and subsequent discharge of pumped stormwater from the swale.

The proposed activities are considered experimental and will serve as a demonstration to be used as the basis of approval as part of the permit application for landfill operation and maintenance. Therefore, a permit modification is not required. The Department appreciates all efforts being made to resolve this matter.

On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

DRAFT

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

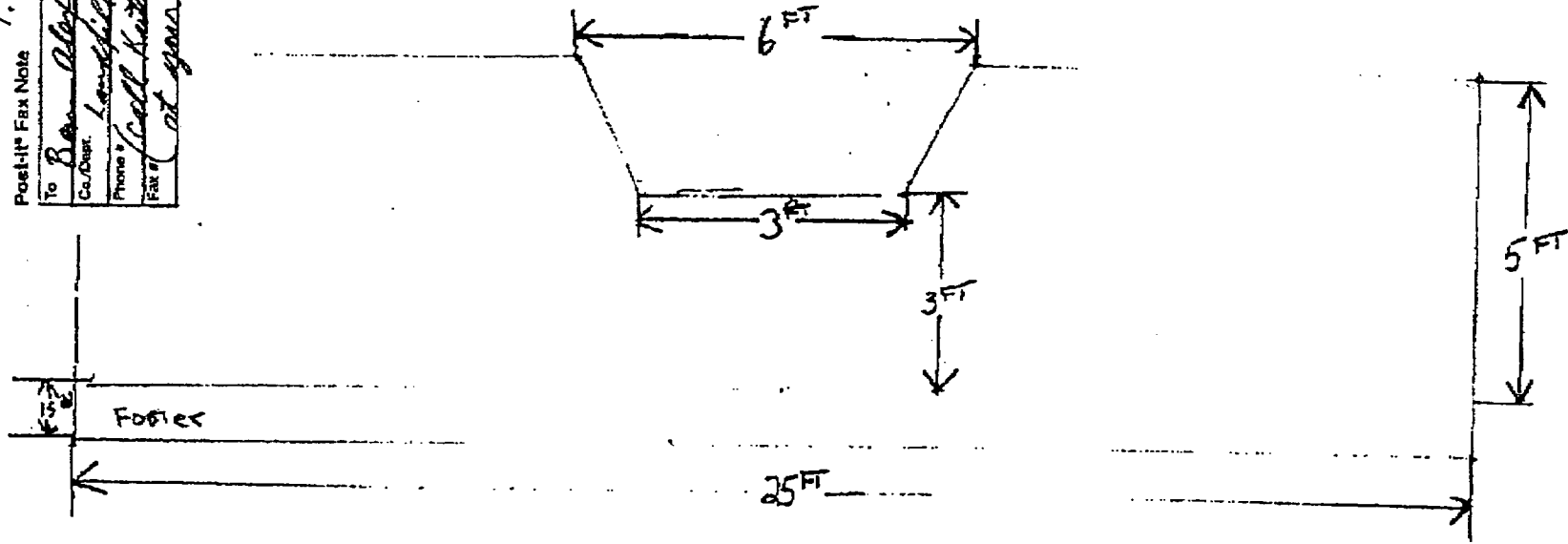
KBF/ab

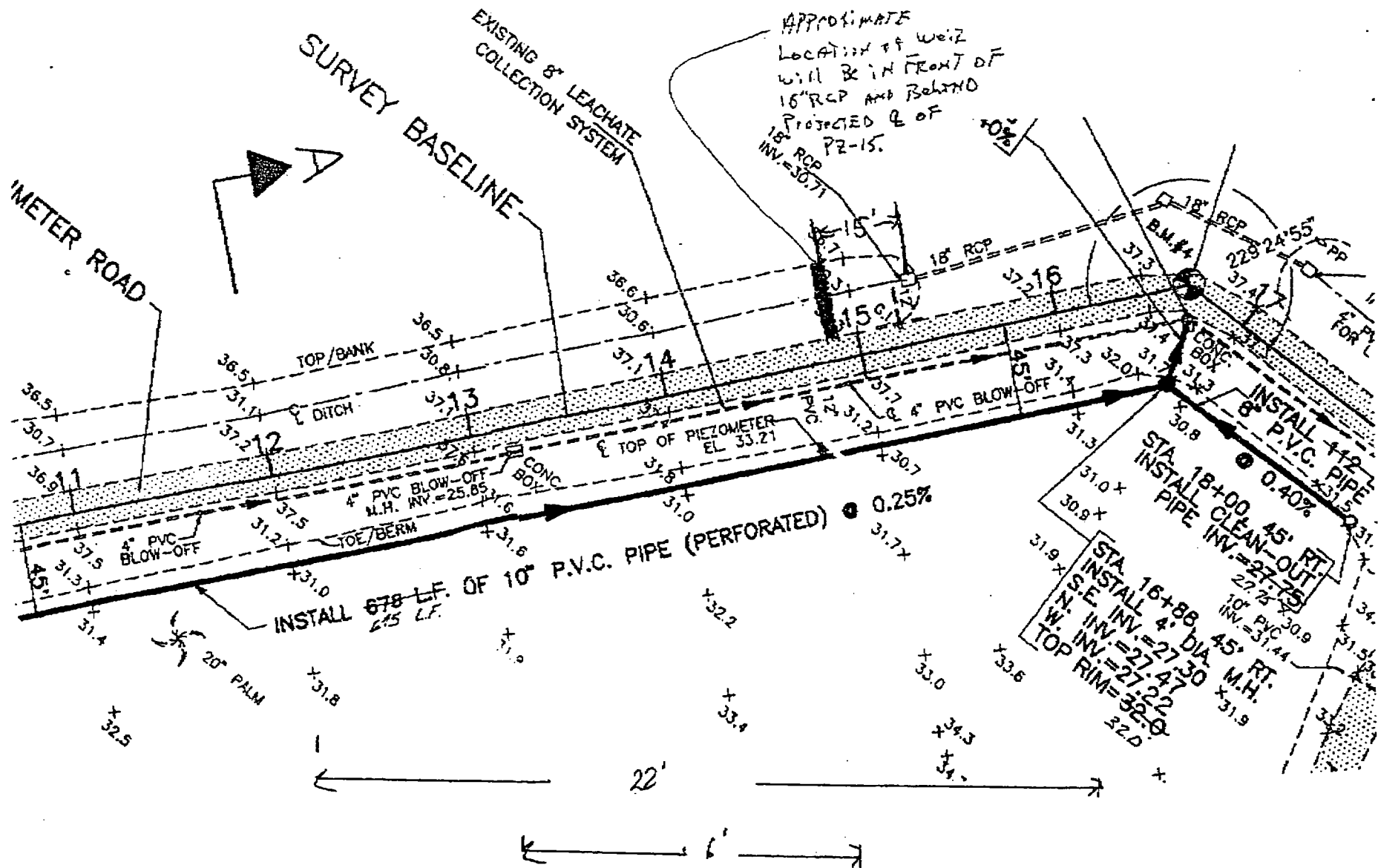
cc: Gus DiFonso, Manatee County
David Pelham, P.E., HDR
Daryl Flatt, P.E., SWFWMD
Randy Cooper, P.E., FDEP Tampa, ERP Section
Robert Butera, P.E., FDEP Tampa, Solid Waste Section
Allison Amram, P.G., FDEP Tampa, Solid Waste Section

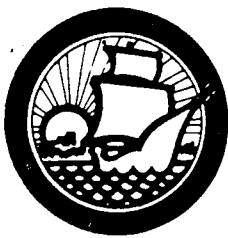
"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Post-it® Fax Note 7:30 AM 9-19-97 7671 1 page

To	Ben Abel	From	Kathy Lindler
Co./Dept.	Landfill	Co	Harcy - Memphis
Phone		Phone	
Fax		Fax	
(Call Kathy or Helen at your convenience)			







MANATEE COUNTY GOVERNMENT

Public Works Department

September 12, 1997

Kim Ford, P.E.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

RECEIVED
SEP 17 1997
Department of Environmental Protection
SOUTHWEST DISTRICT

Re: Manatee County, Lena Road Sanitary Landfill
Stage III Ground Water Gradient

Dear Mr. Ford:

As discussed with you and verified with historical data, an outward gradient exist on the western side of Stage III, specifically at PZ-15. Refer to the attached map for details. In an attempt to reverse the gradient staff proposes the following:

- Construct a weir in the west storm water ditch of Stage III, at the location indicated on the map. The weir will allow storm water to backup along the entire west storm water ditch. The overflow for the weir will be approximately 3 feet above the ditch bottom.
- Once the weir is constructed, storm water from the storm water pond will be pumped into the ditch. A maximum head of 3 feet will be maintained in the ditch. As discussed, an inward gradient should result along the west side of Stage III if sufficient head is maintained in the ditch.

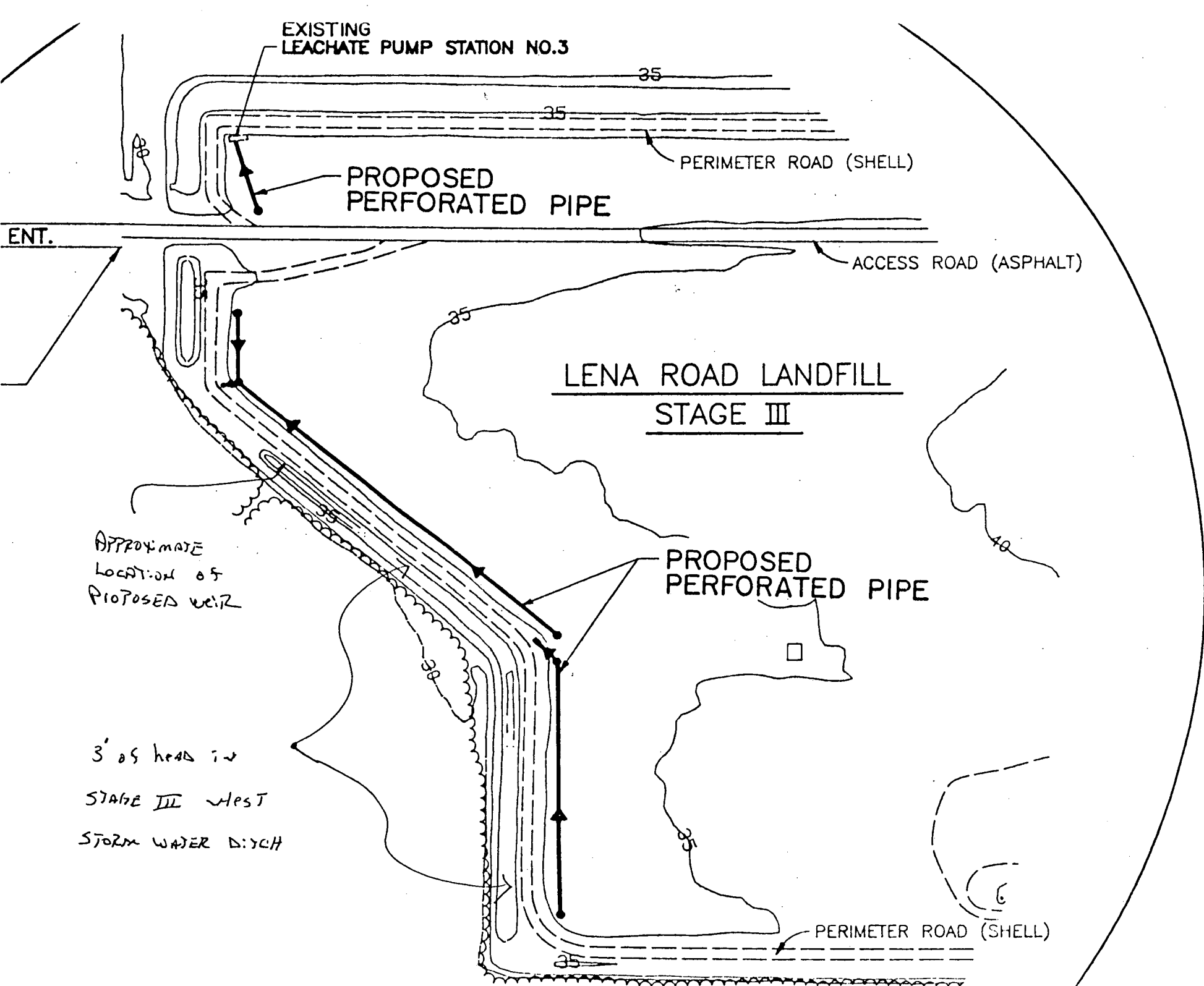
Staff proposes this change to the storm water system be temporary, only to determine if an inward gradient can be maintained. If an inward gradient is maintained, staff suggests the change become permanent and part of our storm water management system until a new design is implemented. If you require further information, or need assistance regarding this matter, please contact me at (941) 748-5543.

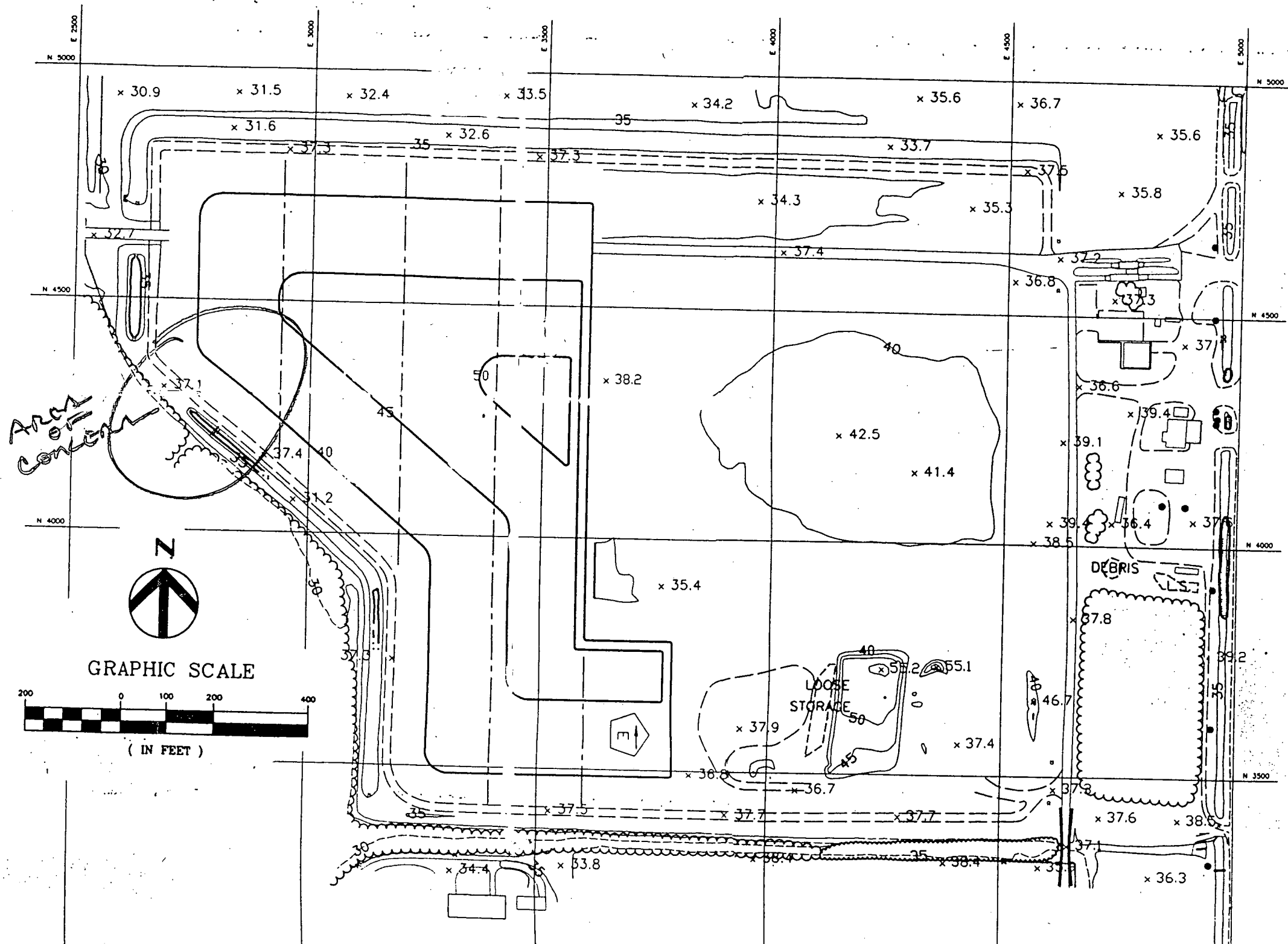
Sincerely,

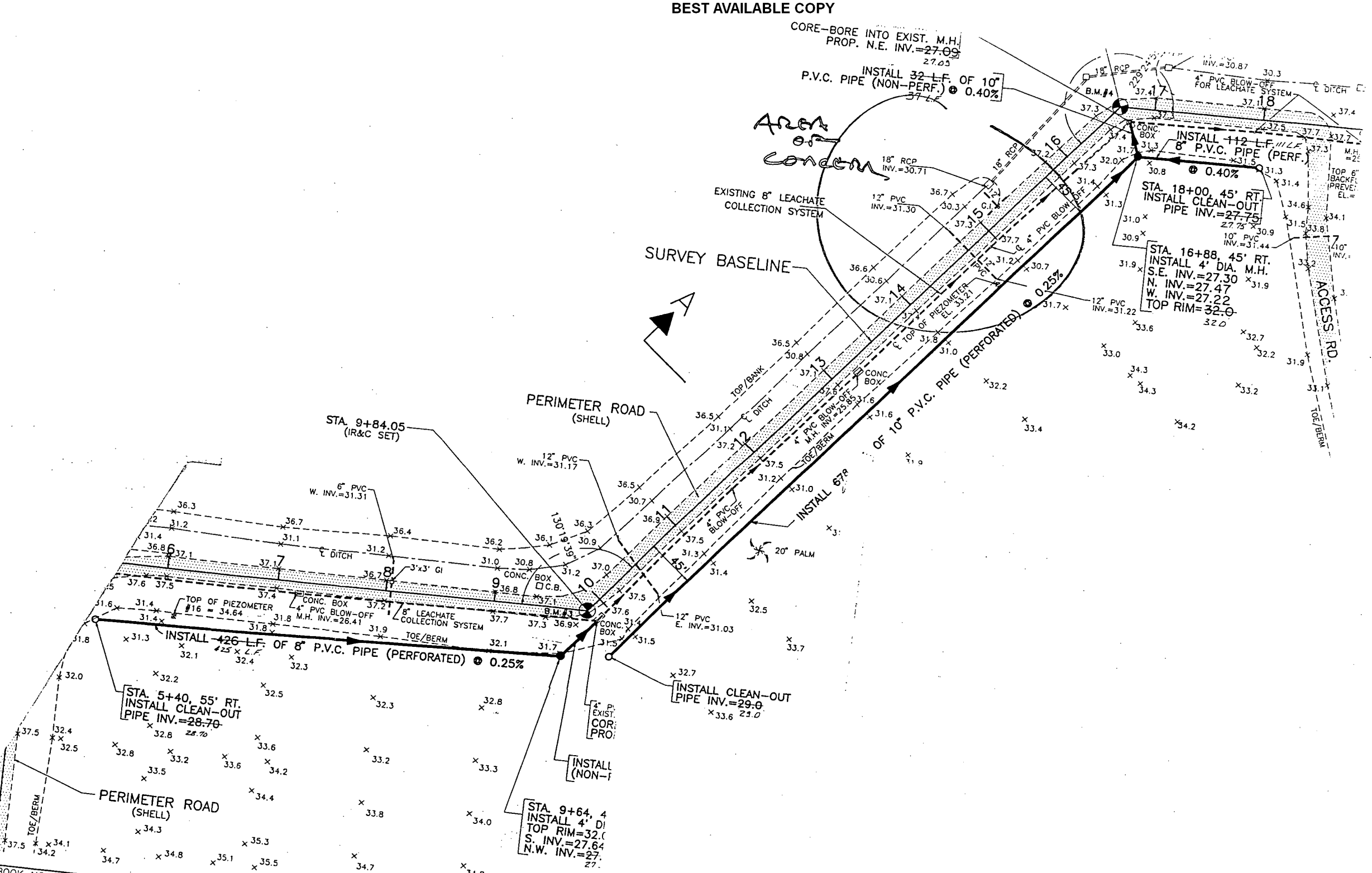
Benjamin L. Alex
Solid Waste Technical Coordinator

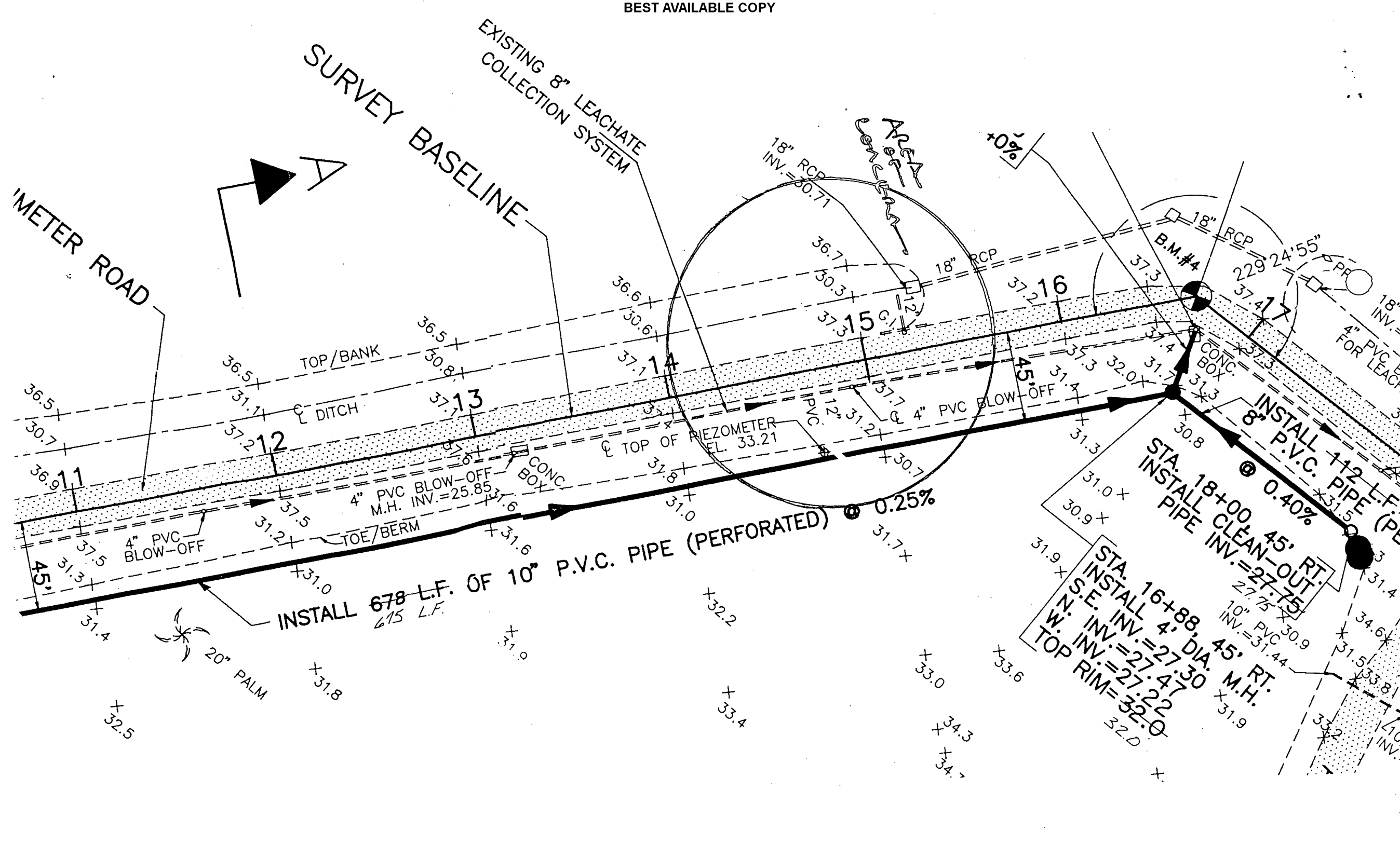
cc:

Len Bramble, P.E., Public Works Director
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *MD*
Robert Butera, P.E., FDEP Tampa
Terry Tiedemann, P.E., HDR Engineering









Transmit Confirmation Report

No. : 007
Receiver : 8-1-941-483-5979
Transmitter : WASTE MGT TAMPA SWDIST
Date : Sep 19 97 11:36
Time : 04'44
Mode : Norm
Pages : 09
Result : OK

MANATEE COUNTY GOVERNMENT

M E M O R A N D U M

RECEIVED

SEP 19 1997

D E P

DATE: September 16, 1997

TO: Kim Ford, P.E., FDEP

FROM: Ben Alex, Technical Coordinator *BLA*

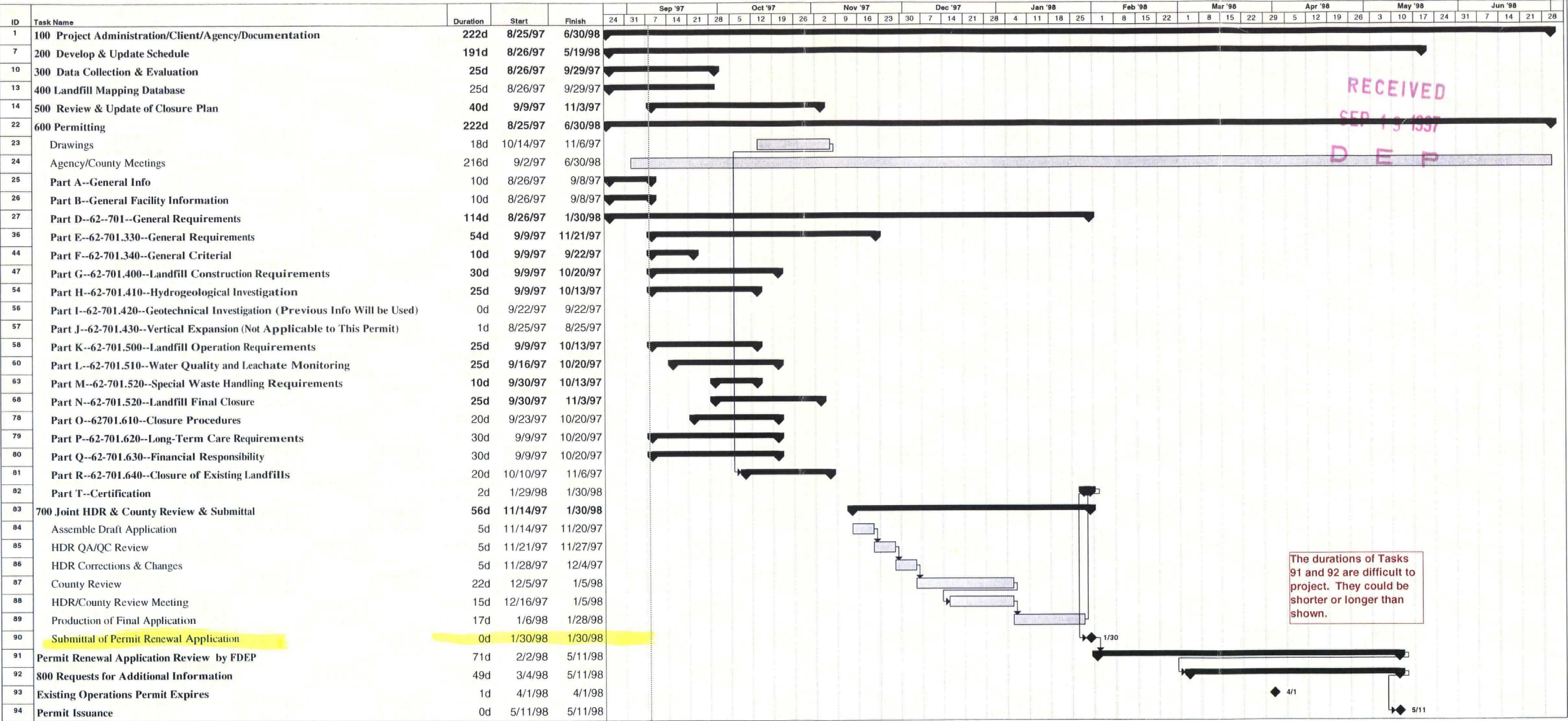
SUBJECT: Operation Permit Application Schedule

As requested please find HDR's proposed schedule for submittal of our operation permit application. If you need additional information please call.

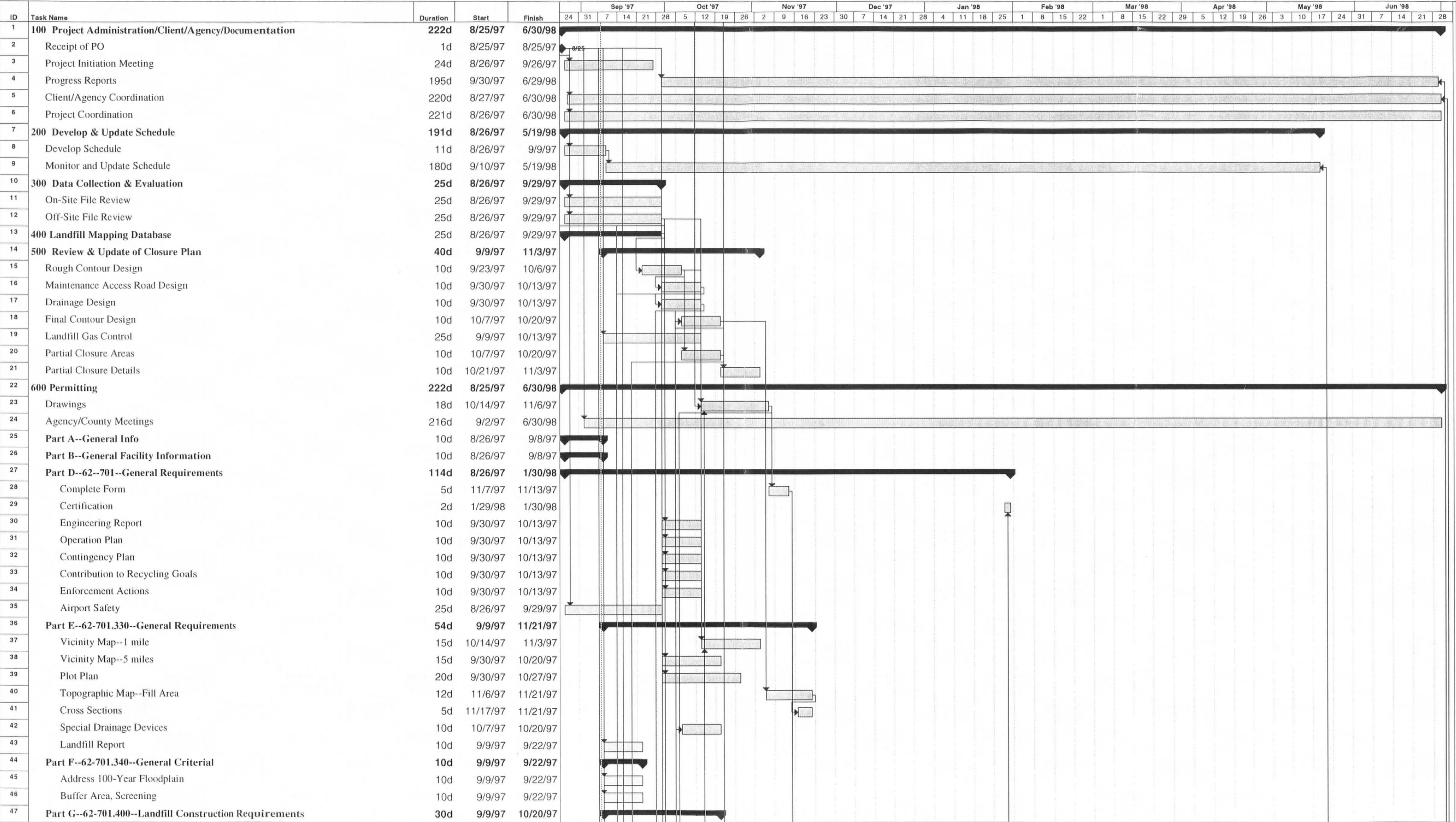
CC:

Gus DiFonzo, Solid Waste Manager
Fred Sebesta, P.E., Senior Project Manager, HDR

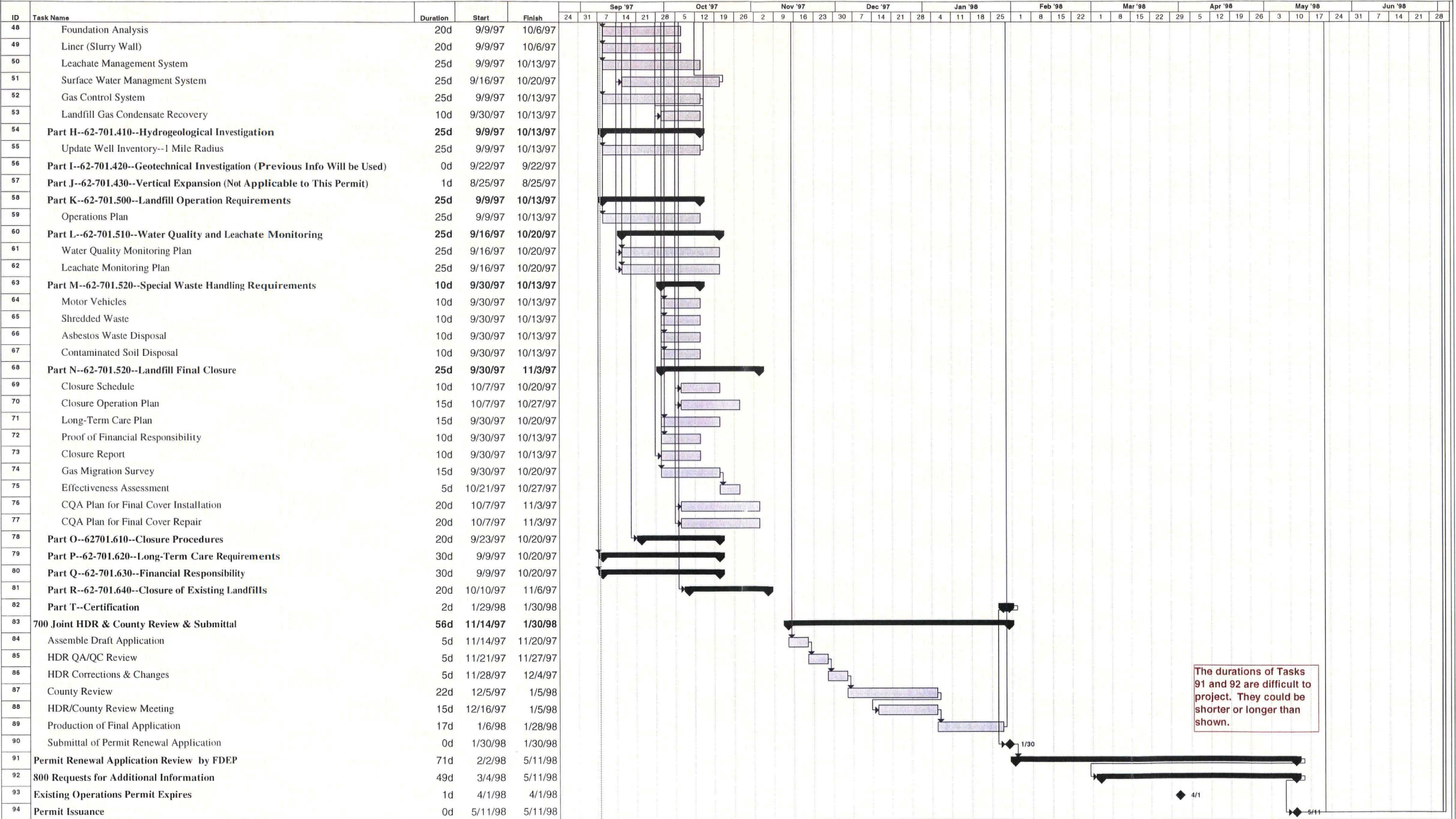
Manatee County
Lena Road Landfill Operation Permit Renewal



Manatee County
Lena Road Landfill Operation Permit Renewal



Manatee County
Lena Road Landfill Operation Permit Renewal



Project:
Date: 9/8/97

Task

Progress

Milestone

Summary

Rolled Up Task

Rolled Up Milestone

Rolled Up Progress



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

CERTIFIED MAIL
RETURN RECEIPT

SEP 18 1997

Mr. Gus DiFonzo
Division Manager
Manatee County
P O Box 25010
Bradenton, FL 34206

**Re: Emergency Detonation or Thermal Treatment of Certain
Hazardous Waste, 62-730.320 FAC (enclosed)**

Dear Mr. DiFonzo:

The purpose of this letter is to encourage active coordination between the Solid Waste Operation at landfills (where treatment of the referenced materials occur), and the persons (Fire Department, Bomb Squad, etc.) responsible for the safe detonation of explosives and this Department.

It has been brought to my attention by Waste Management staff that the referenced treatment may be occurring at some solid waste landfills permitted by this Department. The Department is concerned that the referenced treatment may be occurring at locations in the landfill which may be in close proximity to methane gases escaping from passive vents and/or flares at actively vented landfills. Two recent explosions occurring at leachate sumps at solid waste landfills resulted in injury to personnel. These explosions occurred at pump stations where leachate was being removed from the sumps and the methane gases contained within the pump station were exposed to an ignition source. In addition the Department is concerned with landfill fires, possible damage to HDPE liners utilized in closures and depressions in intermediate cover exposing waste.

The Department requests that the responsible solid waste operation submit (within 90 days of receipt of this letter) a scale site plan of the facility identifying the specific location where the referenced treatment will occur. You are requested to include sites where detonations occur on properties adjacent to solid waste landfills. If no detonations occur at your facility please respond accordingly. The site plan should include the locations of flares, passive vents, leachate sumps, all occupied buildings on site, and their respective distances from the location of these detonations.

Mr. Gus DiFonzo
Manatee County

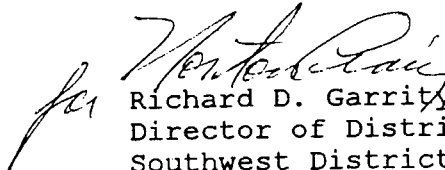
SEP 18 1997

The Department's Solid Waste and Hazardous Waste Sections will review these submittals and respond to the Solid Waste Permittee as to the approved locations for that particular facility. The Solid Waste Section should be contacted for authorization for all further modifications to the gas vent, building, and sump relocations.

In accordance with 62-730.320(1) "Certain hazardous wastes, due to their origin, age, and storage conditions have become a hazard to their surroundings. Because of the flammable, shock sensitive and explosive nature of the wastes, there is an immediate danger and imminent hazard to persons and property in the surrounding area. Therefore an authorization is granted for the emergency detonation or treatment of reactive hazardous wastes, as defined in FAC Chapter 62-730." The Department requests that all authorizations be requested in accordance with 62-730.320(1)(a) which states "The person having custody of the waste contacts the Department and obtains oral or written permission prior to the detonation or treatment."

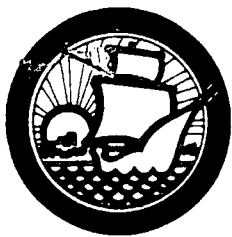
The authorized person for detonating the waste such as the Fire Department, Bomb Squad, etc. should coordinate with the solid waste operation to assure all further detonations will occur at the Department approved locations. The Department requests your cooperation on this matter and thanks you in advance for protecting the environment and providing a safe area within the landfill. If you have any questions concerning this letter you may contact Bob Butera in the Solid Waste Section at 813-744-6100, Ext. 451 or William Crawford in the Hazardous Waste Section at 813-744-6100, Ext. 372.

Sincerely,


for Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

Attachment

cc: Robert Butera, P.E., FDEP
William Crawford, FDEP
Mr. Len Bramble, , Director, Manatee County Public Utilities
Lt. George F. Harris, P.E., Commander
Manatee County Sheriff's Department
Kim Ford, P.E., FDEP
Allison Amram, P.G., FDEP
Danielle Nichols, FDEP



MANATEE COUNTY GOVERNMENT

Public Works Department

September 12, 1997

Kim Ford, P.E.

Division of Waste Management

Department of Environmental Protection, South West District

3804 Coconut Palm Drive

Tampa, FL 33619

RECEIVED
SEP 17 1997

Department of Environmental Protection
BY SOUTHWEST DISTRICT

Re: Manatee County, Lena Road Sanitary Landfill
Stage III Ground Water Gradient

Dear Mr. Ford:

As discussed with you and verified with historical data, an outward gradient exist on the western side of Stage III, specifically at PZ-15. Refer to the attached map for details. In an attempt to reverse the gradient staff proposes the following:

- Construct a weir in the west storm water ditch of Stage III, at the location indicated on the map. The weir will allow storm water to backup along the entire west storm water ditch. The overflow for the weir will be approximately 3 feet above the ditch bottom.
- Once the weir is constructed, storm water from the storm water pond will be pumped into the ditch. A maximum head of 3 feet will be maintained in the ditch. As discussed, an inward gradient should result along the west side of Stage III if sufficient head is maintained in the ditch.

Staff proposes this change to the storm water system be temporary, only to determine if an inward gradient can be maintained. If an inward gradient is maintained, staff suggests the change become permanent and part of our storm water management system until a new design is implemented. If you require further information, or need assistance regarding this matter, please contact me at (941) 748-5543.

Sincerely,

Benjamin L. Alex

Solid Waste Technical Coordinator

cc:

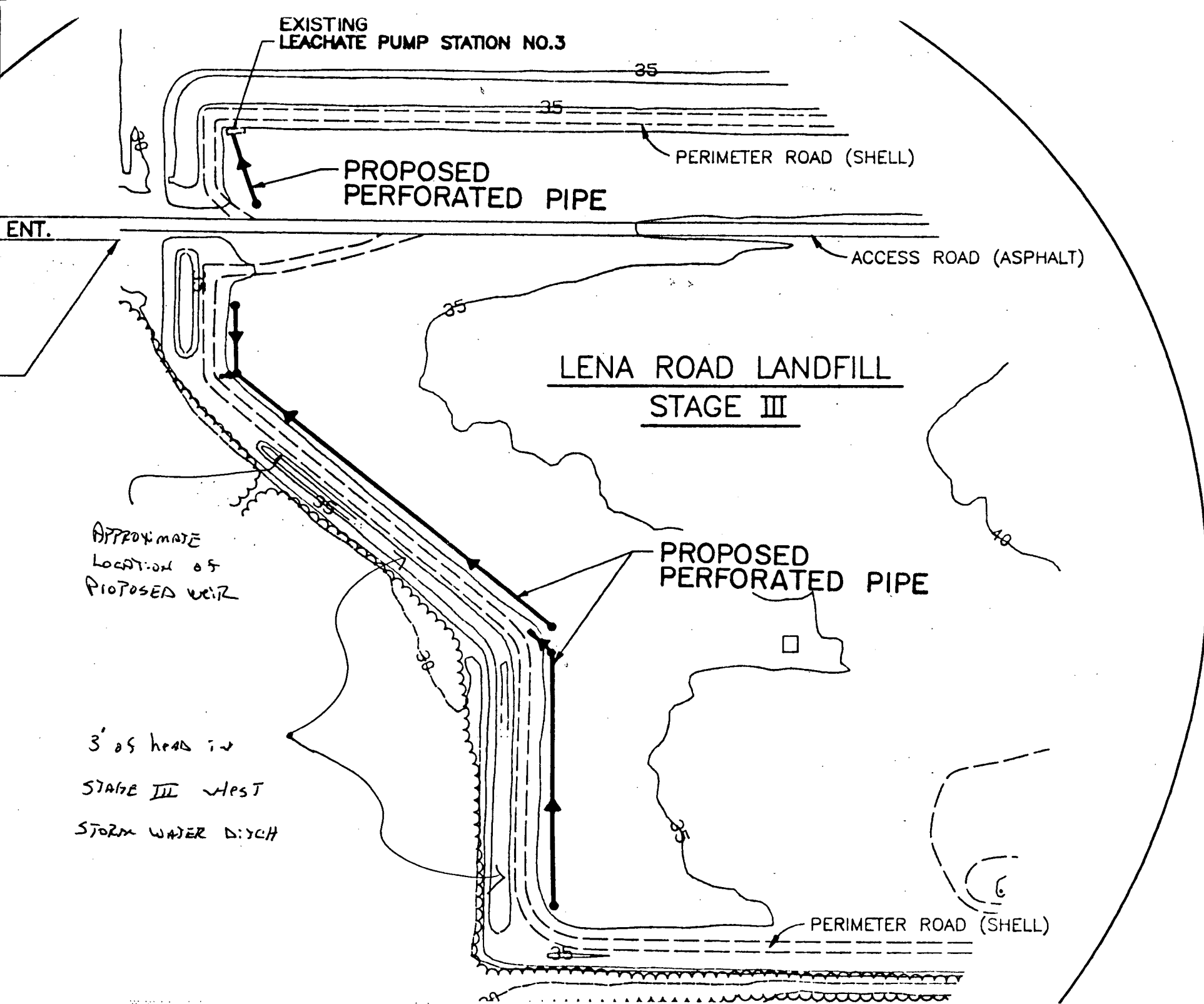
Len Bramble, P.E., Public Works Director

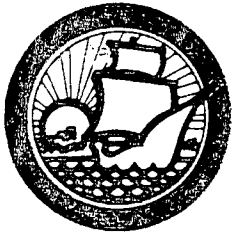
Dan Gray, Utilities Operations Manager

Gus DiFonzo, Solid Waste Manager

Robert Butera, P.E., FDEP Tampa

Terry Tiedemann, P.E., HDR Engineering





MANATEE COUNTY
GOVERNMENT
Public Works Department

RECEIVED
SEP 17 1997

September 15, 1997

Danielle Nichols
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

Department of Environmental Protection
SOUTHWEST DISTRICT

Re: Lena Road Sanitary Landfill, Draft Operations Plan

Dear Ms. Nichols:

In regards to comments made during your August 1997 site inspection and subsequent conversations with Kim Ford, a draft version of our landfill operation plan, section K of the permit application, will be submitted to your office no later than November 1, 1997. Comments received will be included in the final version to be submitted with the operation permit application. If you require further assistance regarding this matter, please contact me at (941) 748-5543.

Sincerely,

Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Len Bramble, P.E., Director Public Works
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *GA*
Gwen Pagington, Program Specialist
Kim Ford, P.E., FDEP
Bob Butera, P.E., FDEP



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

SITE INSPECTION REPORT

NAME OF SITE: LENA ROAD LANDFILL DATE: 9/4/97
SITE ADDRESS/LOCATION: LENA ROAD
CITY: BRADENTON PERMIT #: _____

REASON FOR VISIT:

- COMPLIANCE INSPECTION ☒
- PERMITTING INSPECTION ☒
- COMPLAINT INVESTIGATION ☐

PERSONS PRESENT: BEN ALEX, KIM FORNS

SUMMARY REPORT:

OBSERVED STAGE III PIEZOMETERS
PZ 15 & 15A TO CONSIDER WAYS TO
CORRECT GRADIENT

1. RECHARGE STORMWATER DIRECT
2. REPAIR PZ 15 CLOSER TO LCRS/WALL

BEN & GUS WILL SEND PROPOSAL NEXT WEEK

VIOLATIONS NOTED: OUTWARD GRADIENT AT PZ 15/15A

DEP REPRESENTATIVE: [Signature]

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date:

9/5/97

Number of pages including cover sheet:

12

To:

BEN ALEX
GUS DIFONSO

MANATEE County

Phone:

(941) 748 5543

Fax phone:

(941) 795 3451

CC:

From:

Ken Ford

Phone:

(813) 744-6100

x382

Fax phone:

(813) 744-6125

REMARKS:



Urgent



For your review



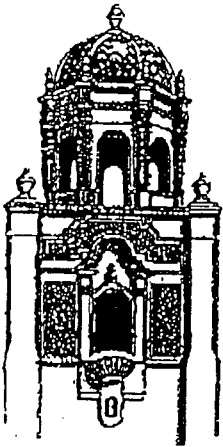
Reply ASAP



Please comment

- 1 SARASOTA 4/16/97 PROPOSAL
- 2 DEP'S 4/18/97 APPROVAL
- 3 SARASOTA 6/2/97 PROBLEM RESOLVED

THE SOLUTION FOR YOURS IS VERY SIMILAR
INSTEAD OF EXCAVATION I SUGGEST DIRT CLEANING
BUILD A SUMP 1' DEEP 20' EACH SIDE
P2 IS A TO HOLD WATER AND ALLOW USE
OF THE WATER WAGON TO FILL IT
SEND YOUR PROPOSAL AND LET'S PLAN IT
FOR NEXT WEEK. TAX Ken



SARASOTA COUNTY GOVERNMENT
SARASOTA, FLORIDA

Solid Waste Department
Operations Division

8350 Bee Ridge Road
Sarasota, Florida 34241
Telephone (941) 316-1166
FAX (941) 316-1167

April 16, 1997

Kim B. Ford, P.E.
Solid Waste Section, Division of Waste Management
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Subject: Bee Ridge Landfill
Operating Permit No. SO58-244738
Slurry Wall Gradient Issue

Dear Mr. Ford:

In accordance with our earlier conversation, I am writing to request FDEP approval of the following proposed action items in regard to the gradient wall issue at Bee Ridge Landfill:

Item No. 1

Within the past week, Monitoring Wells No. 8 and 12 have returned to compliance. This is obviously due to the rainfall at the landfill during this period. However, Wells No. 9, 10 and 11 remain out of compliance at this time, with Well No. 9 being the worst at +1.14 feet. In order to help alleviate this situation, we would like to dig a trench within the confines of the present perimeter ditch, along the southeast side of the landfill. This would essentially lower the ditch bottom in this area by 2 to 3 feet. The trench would be roughly 1000 feet long by about 30 inches wide (see attachment), and would be for the purpose of holding storm water in the ditch instead of allowing it to run off into the storm water pond(s). This would hopefully allow more water to infiltrate into the groundwater aquifer, thereby recharging the area, and bringing the monitoring well levels up to a point of system compliance. The trench would be slightly sloped from either end toward Well No. 9. Once completed, this excavation would concentrate all overland flow to this area from approximately 4.6 acres of Phase 3.



Kim B. Ford, P.E.
April 16, 1997
Page 2

Item No. 2

We would also like to obtain FDEP's permission to pump water directly from the northeast storm water pond to the excavation area whenever necessary. "Whenever necessary" would be when there has been no rainfall in the area over an extended period, and our monitoring results indicate a danger of the monitoring well levels falling out of compliance unless the groundwater is somehow recharged. This pumping would be done via a portable pump and a PVC line, much the same way that we are presently pumping leachate from the leachate pond into the manhole just south of the septage treatment facility. The PVC line would be buried in traffic areas to prevent breakage.

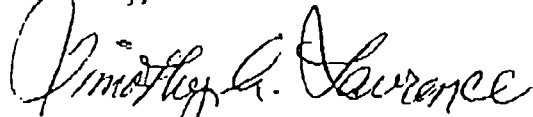
Item No. 3

As a final request, we would like to obtain FDEP permission in the event needed, to extend the initial 1000-foot excavation to include the Phase 4 east perimeter ditch from the leachate pumping station southward. This would entail reversing the normal flow of rainwater in this area from a northward to a southward direction. However, the additional excavation would add approximately 5.5 acres of storm runoff from the east slope of Phase 4 to the excavation area (see attachment). In all then, about 10.1 acres of area would be draining into this trench to provide water for recharging the aquifer outside the southeastern slurry wall.

In no case would excavation in the perimeter ditch extend below Elevation 25. This is above the normal seasonal high water table in the area immediately east of the landfill. Furthermore, all excavated soil would be deposited directly to the east (or immediately outside) of the existing ditch line. This would effectively add even more storage capacity to the excavation area.

Please let us know your thoughts on these items as soon as possible. We would also request DEP's direction on whether or not these changes would constitute a minor permit modification. Please let me know if you need further information, or have any questions on any of the above. We look forward to a final resolution of this issue.

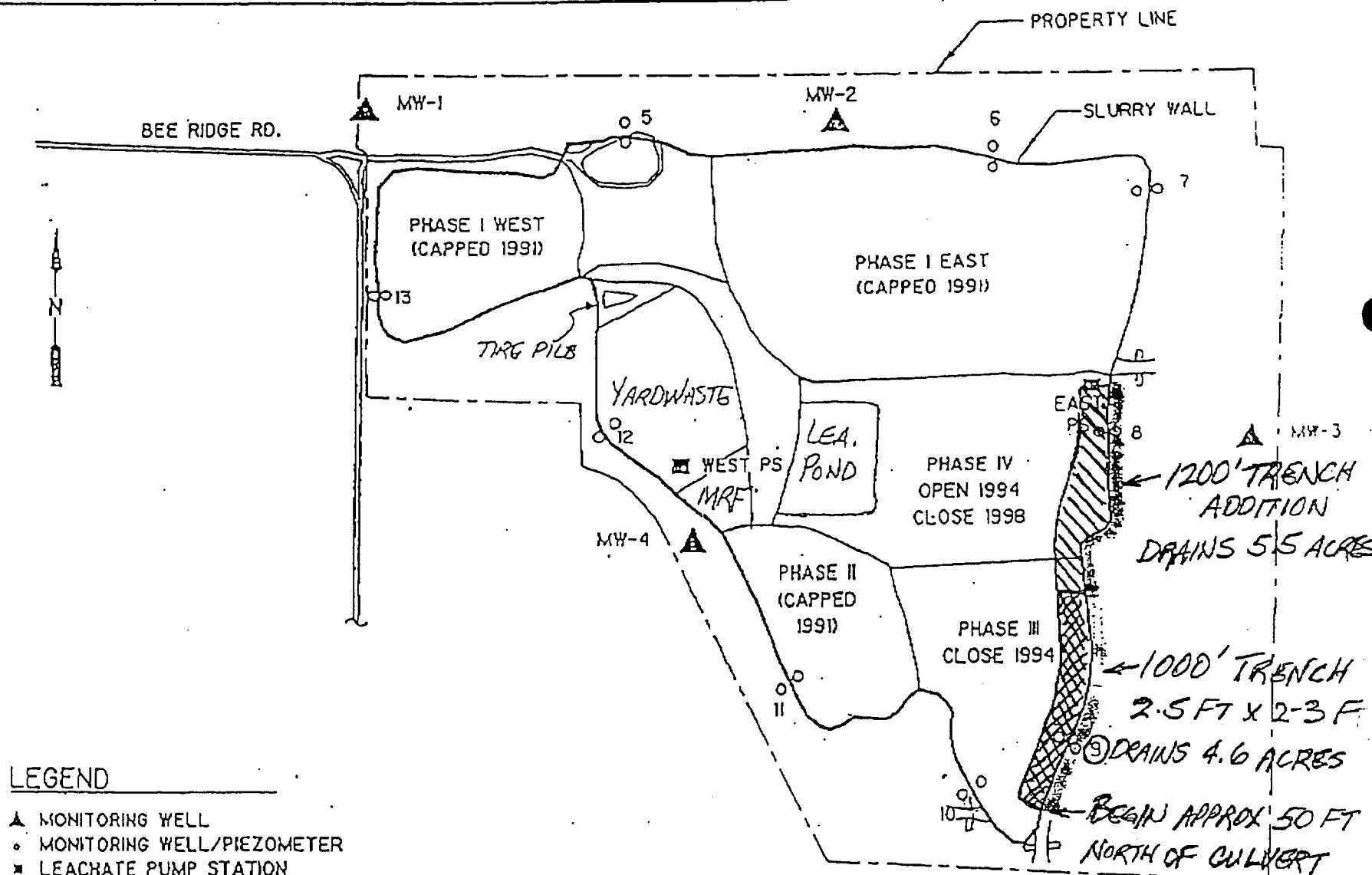
Sincerely,



Timothy A. Lawrence
Solid Waste Operations Manager

TAL:lh
Attachment

CC: Allison Amram, Florida Department of Environmental Protection
Gerald L. Bennett, Deputy Solid Waste Director
David R. Bullock, Solid Waste Director
Robert Butera, Florida Department of Environmental Protection
Randy Cooper, Florida Department of Environmental Protection, ERP Section
Dave Deans, Post, Buckley, Schuh & Jernigan, Inc.
Darryl Flatt, Southwest Florida Water Management District
C.P. Putman, P.E., Post, Buckley, Schuh & Jernigan, Inc.



LEGEND

- ▲ MONITORING WELL
- MONITORING WELL/PIEZOMETER
- LEACHATE PUMP STATION

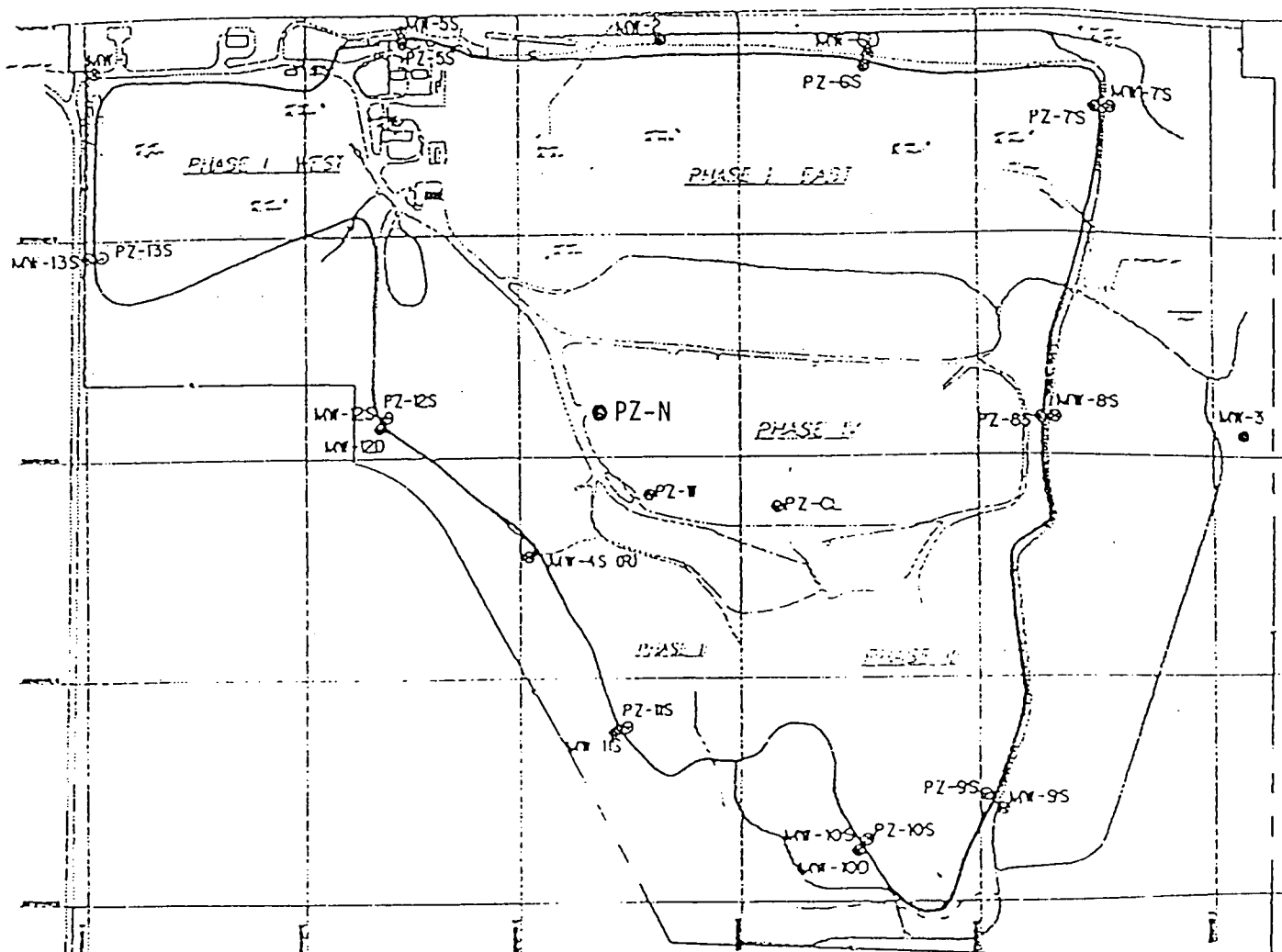
SARASOTA COUNTY BEE RIDGE LANDFILL

SCHEDULED PHASED CLOSURE



Environmental engineers, scientists,
and management consultants

C:\9250-26\



ANN

1" = 800'

400 0 800

LEGEND

- ⊗ MONITORING WELL
⊖ PIEZOMETER

SARASOTA COUNTY

WELL LOCATION MAP

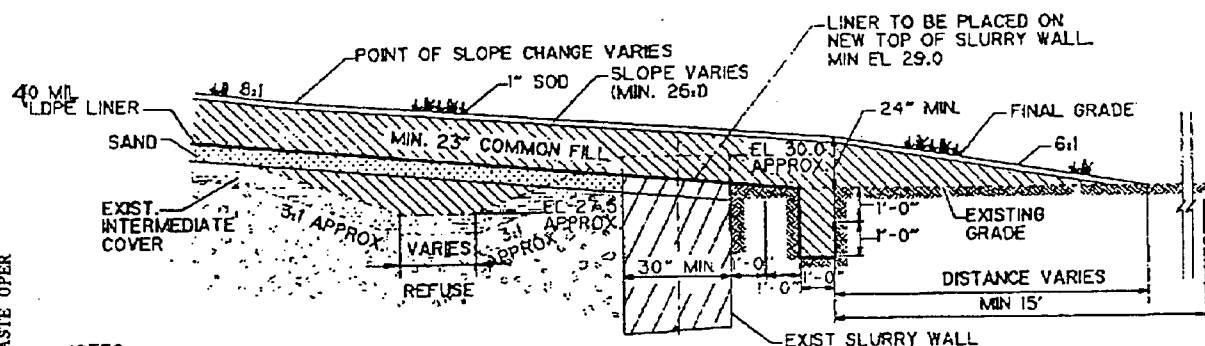


environmental engineers, scientists.

Figure No. 3-1

NOTE: PERSPECTIVE PROVIDED FOR REPRESENTATIVE PURPOSES ONLY.

PERSPECTIVE



NOTE:
SEE SHEET C-1,C-2 FOR
PROPOSED FLOWLINE
ELEVATIONS.

PROVIDE COMPACTION
TO 90% STANDARD
PROCTOR OF ALL
DISTURBED SOIL AND
SOD FULL LENGTH
AND WIDTH

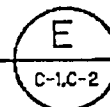
NOTES:

1. CONTRACTOR TO VERIFY LOCATION OF SLURRY WALL IN THE FIELD USING HAND EXCAVATION PRIOR TO START OF GRADING OPERATIONS.
2. CONTRACTOR TO REGRADE OVER SLURRY WALL TO MIN. EL 29.0 AND PLACE EXCESS MATERIAL IN EXISTING INTERIOR SWALE. MINIMUM FINAL SLOPE SHALL BE 25:1. ADDITIONAL FILL REQUIRED TO FILL IN SWALE SHALL BE SUPPLIED AS COMMON FILL BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
3. AREA INDICATED AS PHASE IV WILL NOT RECEIVE LINER OR COVER MATERIAL

SEE DRAWING 2/2 FOR LIMITS
OF TRENCH EXCAVATION.

EXTERIOR COVER DETAIL

NTS



SSER & McKEE INC.

SARASOTA COUNTY
SARASOTA, FLORIDA

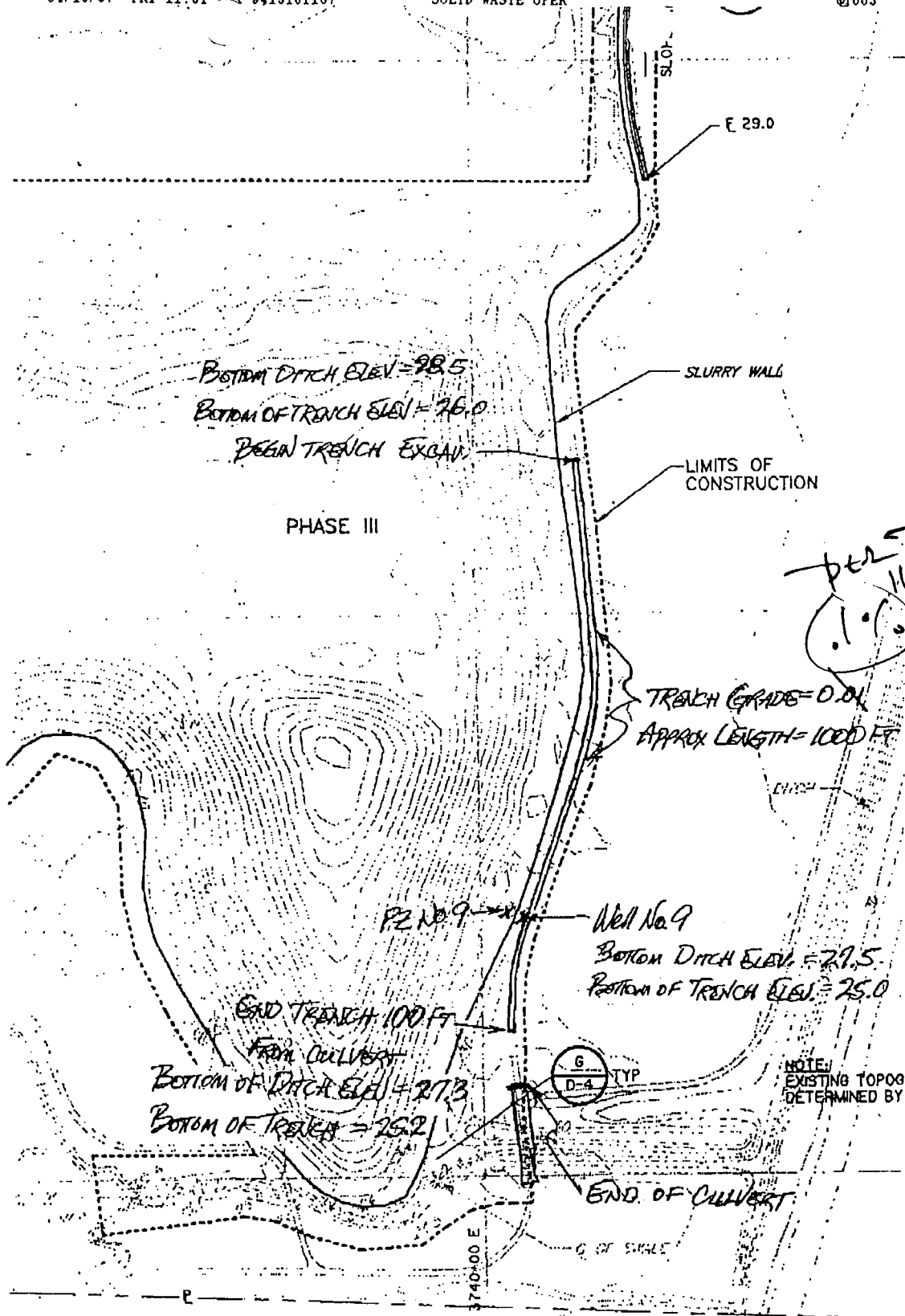
DRAWING 1/2

environmental engineers, scientists,
planners, & management consultants

CDM

SARASOTA COUNTY BEE RIDGE LANDFILL
PHASE III CLOSURE IMPROVEMENTS

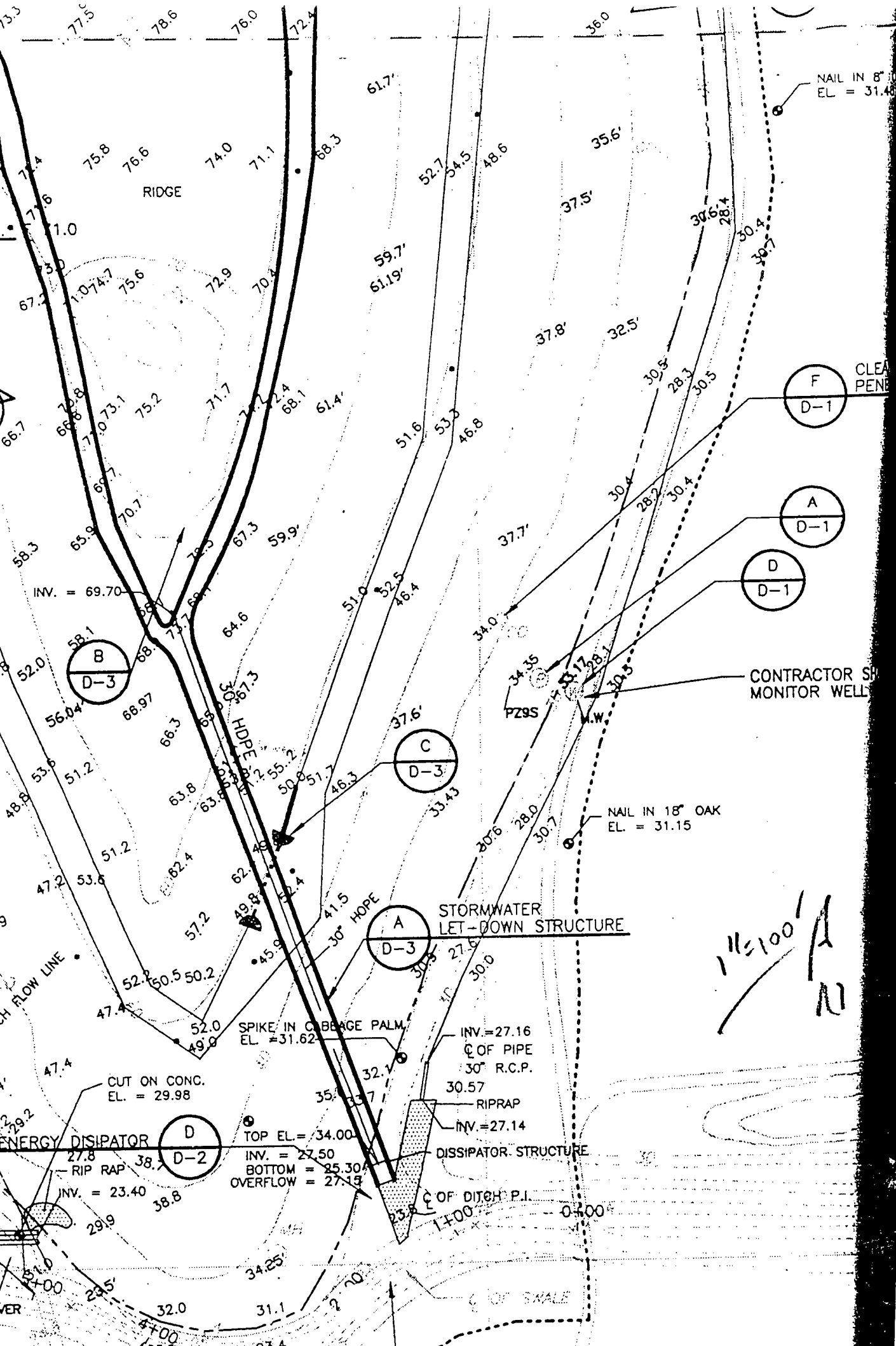
DRAWING
1/2



DRAWING 2/2

LARGE LANDFILL
IMPROVEMENTSEXISTING SITE PL
AND PROPOSED MONITORING

DRAWING 2/2





Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

April 18, 1997

Mr. Timothy Lawrence, P.E.
Solid Waste Department
Sarasota County
8350 Bee Ridge Road
Sarasota, FL 34241

Re Bee Ridge Landfill Gradient, Corrective Actions
Permit No.: SO58-244738, Sarasota County

Dear Mr. Lawrence:

The Department has no objections to the corrective actions concerning the deepening of the east stormwater conveyance swale and stormwater pumping (if necessary) as proposed in your April 16, 1997 letter subject to the following conditions:

1. There shall be no excavation within 50 feet from the existing southern culvert.
2. The bottom of the excavated swale shall not be deeper than elevation 22.0 which is approximately two feet higher than historic high level of leachate inside the slurry wall along the southeast perimeter of the landfill.
3. Pumping of stormwater into the swale shall be controlled to maximize recharge in the swale, and to prevent overflow and subsequent discharge of pumped stormwater from the swale.
4. Stormwater shall not be pumped into the swale from July 1st through September 30th of each year unless approved in advance by the Department (FDEP).

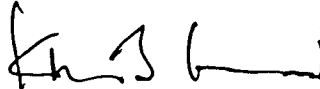
The proposed activities are considered experimental and will serve as a demonstration to be used as the basis of approval as part of the permit application for landfill closure and long-term care. Therefore, a permit modification is not required. The Department appreciates all efforts being made to resolve this matter.

Mr. Timothy Lawrence
Solid Waste Department
Sarasota County

April 18, 1996
Page Two

On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

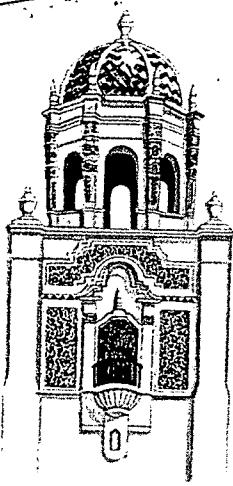
Sincerely,



Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab

cc: David Bullock, Sarasota County
David Deans, P.E., PBS&J
Daryl Flatt, P.E., SWFWMD
Randy Cooper, P.E., FDEP Tampa, ERP Section
Robert Butera, P.E., FDEP Tampa, Solid Waste Section
Allison Amram, P.G., FDEP Tampa, Solid Waste Section



SARASOTA COUNTY GOVERNMENT
SARASOTA, FLORIDA

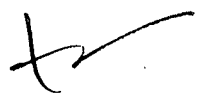
Solid Waste Department
Operations Division

RECEIVED
JUN 05 1997

Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

8350 Bee Ridge Road
Sarasota, Florida 34241
Telephone (941) 316-1166
FAX (941) 316-1167

June 2, 1997


Kim B. Ford, P.E.
Solid Waste Section, Division of Waste Management
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Subject: Bee Ridge Landfill
Operating Permit No. SO58-244738
Slurry Wall Gradient Issue

Dear Mr. Ford:

I am writing to give you our recommendations on solving the slurry wall gradient problem centered around Well No. 9 at the Bee Ridge Landfill, and hopefully bring closure to this issue. As you know, on April 22 while you and Allison Amram were on site, we excavated a clay trench approximately 15 feet deep through the clay layer before reaching the sand below. The excavated area was approximately 150 feet long, and was dug basically along the perimeter ditch line on the southeast side of Phase III. The excavation was then backfilled with soil to elevation 22.5, or about 5 feet below the original ditch bottom elevation. This was done in an attempt to hold storm water in the area, and then hopefully cause the groundwater to recharge more quickly after a rain event.

This effort has proven successful, as only two days after the project was completed, storm water filled the excavated area, and the next day's readings showed that the inside-to-outside gradient across the slurry wall had gone from plus 1.2 feet to minus 2.1 feet. At this time, there is still a 2 foot negative gradient on Well No. 9, and all other wells are in compliance as well. We therefore believe that this venture was successful, and that it will go a long ways in preventing this problem from occurring in the future. Nonetheless, it is still possible during periods of prolonged drought, that the reverse gradient issue will still present itself. In that light, we, through our consultant, Post, Buckley, Schuh & Jernigan, Inc., have prepared a report outlining the results of our study of this issue, along with recommendations for a long term solution. (These recommendations can be found on Page 4 of the attached memo from Dave Deans to myself, dated May 28, 1997).

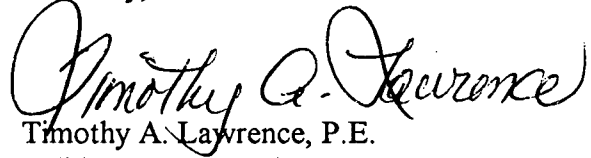
Kim B. Ford, P.E.

Page 2

June 2, 1997

Hopefully, this submittal, along with the work that has already been accomplished, will satisfy DEP's concerns regarding the slurry wall gradient problem at Bee Ridge Landfill. If after reading the attachment, you have questions or wish clarification on any of our findings or recommendations, please contact me.

Sincerely,



Timothy A. Lawrence, P.E.
Solid Waste Operations Manager

TAL:lh

Attachment

cc: Allison Amram, Florida Department of Environmental Protection
Gerald L. Bennett, Deputy Solid Waste Director
David R. Bullock, Solid Waste Director
Robert Butera, Florida Department of Environmental Protection
David Deans, Post, Buckley, Schuh & Jernigan, Inc
C. P. Putman, Post, Buckley, Schuh & Jernigan, Inc.
Donald Shaulis, Central County Solid Waste Disposal Complex

Transmit Confirmation Report

No. : 001
Receiver : 8-1-941-795-3451
Transmitter : WASTE MGT TAMPA SWDIST
Date : Sep 05 97 9:22
Time : 11'00
Mode : Norm
Pages : 12
Result : OK



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

August 29, 1997

Gus DiFonzo
Solid Waste Manager
Manatee County Public Works Department
P.O. Box 25010
Bradenton, Florida 34206

Subject: Hay Production on Lena Road Landfill, Manatee County

Dear Mr. DiFonzo:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has received Mr. Travis Seawright's July 31, 1997 letter concerning hay production over Stage III of the Lena Road landfill. He suggests that the vegetation be removed annually, and that the soil be turned. With the soil probe information showing 14 to 24 inches of cover, and Mr. Seawright's suggestion to till to 12 inch root depth, the FDEP is concerned that this practice could expose waste and also make the area prone to erosion. The FDEP requires the presence of a stable vegetated surface over the landfill cover at all times in order to prevent erosion and waste exposure. Erosion may not be a potential problem if seeding can be done without totally removing the existing cover.

If the County wishes to pursue the proposed hay production, the health concerns, as brought up in the DEP's July 25, 1997 letter, should be addressed with the local health officials. Also, the FDEP will need to review the proposed agricultural activities to prevent disturbance of the landfill cover. This information should include a map showing the areas to be put into hay production, and a plan for agricultural activities (disking, tilling, seeding, etc.)

If you have any questions, please contact me at 813/744-6100, ext. 336.

Sincerely,

for Allison Amram, P.G.
Solid Waste Section

cc: Travis Seawright, Extension Livestock Agent, 1303 17th St. W., Palmetto, FL 34221
Captain John Potts, Manatee County Sheriff's Office, Corrections Bureau,
515 11th St. W., Bradenton, FL 34205-7727
Len Bramble, Manatee Co. Public Works Dept., PO Box 25010, Bradenton, FL 34206
Ben Alex, Manatee Co. Public Works Dept., 3333 Lena Rd., Bradenton, FL 34202
Bob Butera, P.E., FDEP
Kim Ford, P.E., FDEP



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

August 21, 1997

Mr. Ben Alex
Solid Waste Technical Coordinator
Manatee County Public Works Department
Solid Waste Division
3333 Lena Road
Bradenton, Florida 34202

Subject: Leachate Monitoring & Reporting, Specific Condition No. 31,
Permit No. SO41-211176, Lena Road Landfill, Manatee County

Dear Mr. Alex:

As we discussed on the telephone today, the County would like some clarification on the term "annually" which appears in Specific Condition No. 31 (Leachate sampling) in the Lena Road solid waste operation permit referenced above. The landfill leachate is required to be sampled semi-annually (twice a year) for a specific list of parameters, and annually (once a year) for an extended list of parameters. This rotation should include the short list one sampling event, and the extended list the next time. The last two semi-annual events were both for the short parameter list. In the future, please sample for the extended list every other sampling event. This will put the landfill on an "annual" sampling basis for the extended parameter list. As the landfill did not sample on schedule for the annual parameters, please make sure that the annual sampling is conducted during the second half of each calendar year. According to Specific Condition No. 39, the results of the annual leachate sampling must be submitted to the FDEP no later than January 15th of each year.

If you have further questions, you may contact me at 813/744-6100, ext. 336.

Sincerely,

Allison Amram, P.G.
Solid Waste Section

Attachment, Specific Condition No. 31 of Permit No. SO41-211176

cc: Gus DiFonzo, Solid Waste Manager, Manatee County Public Works Department,
P.O. Box 25010, Bradenton, FL 34206
Bob Butera, P.E., FDEP

SPECIFIC CONDITIONS:

31. Leachate shall be sampled and analyzed **semi-annually** for the indicator parameters listed as follows:

Leachate indicator parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>
Specific conductivity	Total Ammonia - N
pH	Bicarbonate
Dissolved oxygen	Chlorides
Colors, sheens	Iron
	Mercury
	Nitrate
	Sodium
	Total dissolved solids (TDS)
	Those parameters listed in
	40 CFR Part 258 Appendix I

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR Part 258, Appendix II. For landfills which are receiving waste, if this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials. Any leachate which is not recirculated or taken to a permitted domestic wastewater treatment facility shall be treated or managed so that no contaminant exceeds the regulatory level. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

Amended July 21, 1994.

32. In accordance with FAC Rule 62-522.600, any new wells as part of the Groundwater Monitoring System shall be constructed and all wells sampled for the parameters listed in 62-701.510(8)(a) and (d) and the data submitted to the Department within ninety (90) days of well completion. The permittee shall ensure that the groundwater monitoring system adequately monitors the existing site.

33. Within ninety (90) days after completion of any new wells the following information shall be provided:

Well identification	Driller's Log
Latitude/Longitude	Total depth of well
Aquifer monitored	Casing diameter
Screen Type and slot size	Casing type and length
Screen length	SWFWMD well construction
Well seal and filter pack	permit numbers
type and thickness	
Elevation at top of pipe	
Elevation at land surface	

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 8/20/97 Subject Leachate monitoring
Time 10:25 Permit No. _____
County Manatee
M Ben Alex Telephone No. 941/748-5543
Representing Manatee Co
[] Phoned Me [X] Was Called [] Scheduled Meeting [] Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting 8/20 - left message - Ben's on jury duty
8/21 - 9:30 - talked w/ Ben
Received replacement copy of 1/9/97 submittal -
Nov '96 (2nd 1/2 1996) sampling

- Leachate reporting sheet says sampled
8/30/96 - Requested to send the
chain of custody for Nov. sampling
so I can change the date -- results
shown are different from 8/30/96 results.
- 6/27/97 results - only have Appendix 1 results --
this should have been their annual sampling
He believes annual sampling is once every
calendar year - I will send him a letter

(continue on another
sheet, if necessary)

Signature Allison Amman
Title Ph/I

PA-01
1/96
pap

clarifying that the leachate is to be sampled
for App 1 params the 2nd 1/2 of each year
(due w/ Jan submittals) ~~to~~ clarify this for him.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 8/7/97

Subject Zena Rd

Time 4pm

Permit No. _____

County Manatee

M Ben Alex

Telephone No. 941/748-5543

Representing Manatee Co Solid Waste

☐ Phoned Me ☒ Was Called ☐ Scheduled Meeting ☐ Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting _____

- What is being done to correct the gradient @ GC1A + GC4? They redeveloped PZs - still (PZ-15A) show outward gradient. Installed a french drain - didn't work. He will look @ leachate collection pipe inverts + see if it is too high. I requested that he send Kim Ford a letter acknowledging the problem + the Co.'s plan for addressing improvements. Told him the permit requires him to address now rather than at permit exp.
 - Did they redevelop MUs + PZs as suggested in 2/24/97 letter w/ water balance info. PSI redeveloped the wells - 6/5/97 letter w/ April gradient letter - talks about well development - work done in May 1997.
 - Have not rec'd results of 11/96 monitoring, or Jan - June 1997, QA documentation. Also sampled June '97.
- Should receive gw + leachate mon. in 2 weeks (June 97 data).

(continue on another
sheet, if necessary)

Signature Allison A. Mann

Title PGI

PA-01
1/96
pap

He has letter sent 1/9/97 w/ 11/96 data. He will send it in again.
Requested QA documentation.



UNIVERSITY OF
FLORIDA

Cooperative Extension Service

Institute of Food and Agricultural Sciences

RECEIVED
AUG 04 1997

Department of Environmental Protection
SOUTHWEST DISTRICT

1303 17th Street West
Palmetto, FL 34221
Phone: (941) 722-4524
Fax: (941) 721-6608

July 31, 1997

Allison Amram, P.G.
Dept. of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

BY _____

Dear Allison,

On July 30, 1997, Captain Potts and I examined the site (Stage III) in question located at the Manatee Land Fill. I used a soil probe to determine the soil depth and make a determination on the soil profile. The soil cover over the particular section of the land fill varied from 14" to over 24" in depth. A compaction layer of undetermined thickness was found.

The type of cultivars growing on the soil profile at the present time are Argentina Bahia, Alyce Clovers, Desmodium, Florida Carpon, Common Bermuda, and various weeds. All the cultivars are shallow rooted (between 6" and 12"). This is well above the compaction layer and should pose no problems of penetration beyond the compaction layer.

One of the BEST MANAGEMENT PRACTICES used in agriculture production is to devoid or eliminate vegetation top growth annually. This is turn helps to aerate the soil and to increase the microbial activity of the soil.

It would be my opinion to systematic remove the vegetation, which in-turn would be a good source of animal feed under sound production practices, to continually improve the soil conditions that exist. Call me if you require anything else.

Sincerely,

Travis Seawright
Agricultural Extension Agent

cc: Gus Difonzo, Manatee County Public Works Dept.
Dave Rothfess, Manatee County Administration
Captain John Potts, Manatee County Sheriff's Dept.
Len Bramble, Manatee County Public Works Dept.
Ben Alex, Manatee County Public Works Dept.

c:\wp\work\travis\letters\stage3.ltr



Lena Road
SO permit file

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

July 25, 1997

Gus DiFonzo
Solid Waste Manager
Manatee County Public Works Department
P.O. Box 25010
Bradenton, Florida 34206

Subject: Hay Production on Lena Road Landfill, Manatee County

Dear Mr. DiFonzo:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has evaluated your July 3, 1997 letter asking for comments on potential hay production over Stage III of the Lena Road landfill. According to FDEP records, this section of the landfill has waste present, but no low-permeability cap. The FDEP can only evaluate this request in the context of potential environmental impact. The FDEP does not have any concerns with this activity affecting the landfill, as long as waste is not exposed. However, if the hay roots extend into the waste, then there may be agricultural and/or health concerns with potential uptake of contaminants into the hay that will be fodder for cattle which in turn will be used as food for inmates of the Manatee County Jail.

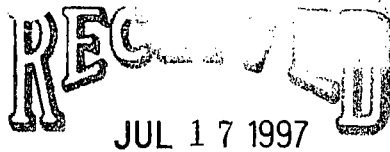
The FDEP suggests that you request input on the proposed hay production from the County Extension. I have briefly talked with Livestock Agent Travis Seawright, and he will be happy to assist you with this request. If you have any further questions concerning the landfill, please contact me at 813/744-6100, ext. 336.

Sincerely,

Allison Amram, P.G.
Solid Waste Section

cc: Travis Seawright, Extension Livestock Agent, 1303 17th St. W., Palmetto, FL 34221
Captain John Potts, Manatee County Sheriff's Office, Corrections Bureau,
515 11th St. W., Bradenton, FL 34205-7727
Len Bramble, Manatee Co. Public Works Dept., PO Box 25010, Bradenton, FL 34206
Ben Alex, Manatee Co. Public Works Dept., 3333 Lena Rd., Bradenton, FL 34202
Bob Butera, P.E., FDEP

lt



Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

HDR

July 15, 1997

Bob RD

Mr. Kim B. Ford, P.E.
Florida Department of Environmental Protection
3804 Cocónut Palm Drive
Tampa, FL 33619

**RE: Manatee County
Lena Road Landfill
Gas Emission Control System**

Dear Mr. Ford:

I would like to thank you and Mr. Zell for your time this morning in discussing the permitting issues involving the landfill gas control system at the Lena Road Landfill. As we discussed, I am forwarding this letter to you to confirm the issues at hand and to resolve any differences prior to the application submittal.

The following summarizes the conversations between myself, you, and Dave Zell:

1. The Air Section permit application will be an addendum to the previously submitted Title V application. This submittal will include emission estimates from the control unit (flare), process description, design drawings, condensate quantities (condensate is proposed to be mixed with leachate prior to treatment), and justification for not placing controls in Stage 3 at this time.
2. A separate Air permit other than the Title V permit will not be required. A minor modification (\$250 application fee) to the Solid Waste Operation Permit will be required.
3. The Chapter 120 Florida Statute time clock apparently does not apply to the Title V permitting process, but does for the minor modification. Since this is a new process for FDEP, you requested that we provide additional review time of the Title V submittal prior to the initiation of the 30-day permit modification clock. We agreed that a 60-day delay after the Title V addendum submittal would provide adequate review time prior to the minor modification submittal. This will aid in the

W:\MANATEE\LFGS101F008.DOC

HDR Engineering, Inc.

Employee-owned

Suite 300
5100 W. Kennedy Boulevard
Tampa, Florida
33609-1840

Telephone
813 282-2300
Fax
813 282-2449

Mr. Kim Ford
July 15, 1997
page 2

Department's review process to reduce any questions that may arise during the permit minor modification process.

4. Although applications are typically submitted to the Air Section, then routed to Solid Waste, you requested that we provide three sets of the application directly to Solid Waste at the time of the Title V addendum submittal.
5. The Title V addendum submittal will include approximately 70 percent complete construction drawings. These drawings will include all major components of sufficient detail to understand the complete collection and control system, but may be lacking some details and construction notes. The minor modification submittal will include substantially complete construction drawings.

Thank you again for your time and attention. If there are any corrections or changes to the content of the above or any inclusions that you would care to make, please call me at 282-2404 at your earliest convenience.

Sincerely,

HDR ENGINEERING, INC.

A handwritten signature in cursive script, appearing to read "David M. Pelham".

David M. Pelham, P.E.
Project Manager

cc: Tom Yarger, Manatee County
Dave Zell, FDEP-Air Section
Neal Poteet, HDR

Alison

Cent Road Landfill
GRADIENT

IF AN OUTWARD GRADIENT EXISTS
ANYWHERE, A CORRECTIVE ACTION
IS PLAN IS REQUIRED TO BE
SUBMITTED WITH THE MONTHLY DATA,
NOT AT RENEWAL.

PLEASE LET ME KNOW WHAT
YOU FIND OUT AND HOW
THEY ARE PLANNING TO CORRECT
IT AND WHEN.

THX

for
7/17/97

SPECIFIC CONDITIONS:

29. Piezometers PZ-1 through PZ-17 and all surficial aquifer monitoring wells listed in Specific Condition #28 shall be monitored monthly for water levels to an accuracy of 0.01 feet. This information shall be used to evaluate the presence/absence of an inward gradient at the landfill at all points. This data shall be submitted **monthly** to the Department. If an outward gradient exists, steps for correcting the gradient shall be included with the data.
Amended July 21, 1994.

30. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. Documentation of an approved Quality Assurance Plan shall be submitted to the Department **annually** with the first groundwater sampling report for each year. Documentation shall include the completed signature page and the table of contents of the approved plan. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.

31. Leachate shall be sampled and analyzed **semi-annually** for the indicator parameters listed as follows:

Leachate indicator parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>
Specific conductivity	Total Ammonia - N
pH	Bicarbonate
Dissolved oxygen	Chlorides
Colors, sheens	Iron
	Mercury
	Nitrate
	Sodium
	Total dissolved solids (TDS)
	Those parameters listed in
	40 CFR Part 258 Appendix I

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR Part 258, Appendix II. For landfills which are receiving waste, if this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials.

John RB

KRM
What's THIS ALL ABOUT? See me.
Bel

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/2/97 Subject LEACHATE LF
Time 11:40 Permit No. _____
County MANATEE
M GUS DIXON Telephone No. _____
Representing MANATEE COUNTY
[☒] Phoned Me [☐] Was Called [☐] Scheduled Meeting [☐] Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting _____
DISCUSSED SEVERAL ITEMS TO BE RESOLVED -
① EXPLANATION FOR LEACHATE DATA 1996-1997
WHAT IS IN ERROR, WHY, WHAT'S BEEN DONE
TO CORRECT PROBLEMS
② CIL will continue to be placed in CLASS I
in SEGREGATED AZHA AS AGREED UPON PREVIOUSLY
③ WHAT WILL BE DONE TO CORRECT / MAINTAIN INWATER
GRADIENT STAGE III AND WITHIN PRIOR TO RENEWAL
④ OPS PLAN - GUS D. SAID CHRIS KOTL
MAY BE CONTRACTED TO WRITE PLAN TO COMPLY
WITH SECTION K OF APPL. FORM. I SUGGESTED
EXAMPLES OF OTHERS BE REVIEWED AND CONSIDERED
GUS AGREES AND SAID THE CURRENT OPS PLAN IS
AVAILABLE BUT MAY NOT MEET ALL OF SECTION K

(continue on another
sheet, if necessary)

Signature E L

Title _____



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

April 30, 1997

Mr. Ben Alex
Solid Waste Technical Coordinator
Manatee County Public Works Department
Solid Waste Division
3333 Lena Road
Bradenton, Florida 34202

Mr. John R. Marquardt, P.E.
Professional Service Industries, Inc.
4400 140th Avenue North, Suite 100
Clearwater, Florida 34622

Subject: Groundwater Monitoring Plan Biannual Evaluation, October 10, 1996 Response
Lena Road Landfill, Permit No. SO41-211176
Manatee County

Dear Messrs. Alex and Marquardt:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the October 10, 1996 Groundwater Monitoring Plan Biannual Evaluation Response prepared by Professional Service Industries, Inc. (PSI). This document was resubmitted, signed & sealed by a professional engineer at the FDEP's request on December 23, 1996. Comments Nos. 1, 2, 3, 4.2, 5, and 6 were addressed in the report. A response to comment 4.2 is provided below.

- 4.2 The response stated that the unusually high groundwater elevation in well SA-2 may be from the well connecting the surficial and confined aquifers. If this is so, the well needs to be fixed to prevent mixing of the two aquifer waters, or abandoned. Please evaluate this well, and see if the screened interval (15 - 115 feet below land surface), water quality and water elevations indicate connection of the aquifers. Please provide the FDEP with the results of this evaluation when it is complete, but no later than January 2, 1998.

Specific Condition No. 41 of the landfill's operating permit requires the next ground water monitoring plan evaluation 90 days prior to permit expiration. This report is due to the FDEP **January 2, 1998**. The report should evaluate the 1996 and 1997 water quality data. It should include: ground water flow maps with elevations collected over only a one-day period, which should coincide with the sampling events. (Please remember that a ground water flow map is required by F.A.C. Rule 62-701.510(9)(a) to be submitted with the semi-annual testing results). In addition, the evaluation or the permit application should include a proposed remedy for the existing outward gradient in Section III of the landfill by monitoring points GC-1A and GC-4; these wells also have the poorest water quality of the landfill's monitoring network.



MANATEE COUNTY
GOVERNMENT
Public Works Department

Allison
Any comments?
Kim
3/3/97

February 24, 1997

Allison Amram, P.G.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Manatee County Solid Waste Management Facility
Lena Road Landfill

Dear Ms. Amram:

Enclosed please find the January 1996, monthly ground water gradient water balance and leachate tracking summary for the above referenced subject. Calibration for the gas probe was completed and the instrument received in time for January's measurement. An oversight on our part, depth to groundwater measurements for January were not taken, thus no water gradient report is included.

Comparing well boring logs against actual field measurements, there appears a need to have all of the monitoring wells and piezometers cleaned free of all silt that has accumulated in the wells. We will contract with our vendor to have the wells and piezometers cleaned. Upon completion, a report summarizing the work including the total depth for each well will be provided to your office. If you have any questions or require additional information please call me at 941-748-5543.

not attached

This is file

Sincerely,

Benjamin L. Alex

Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Kim Ford, P.E., FDEP
Len Bramble, P.E., Public Works Director
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *GR*

Bob RB

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

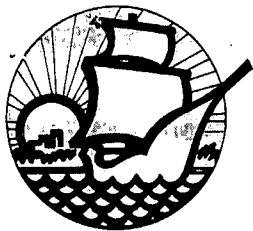
Date 7/11/97 Subject LEADA ROAD LE CAHATE
Time 1:35 Permit No. _____
County MANATEE
M BEN ALEX Telephone No. (941) 7485543
Representing MANATEE COUNTY
☐ Phoned Me ☒ Was Called ☐ Scheduled Meeting ☐ Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting _____
WE DISCUSSED LEAHATE REPORTS
1. NUMBERS DON'T BALANCE DUE TO RECIRCULATION
WE DISCUSSED DOWNSIZING LEAHATE POND
AND MINIMIZING RECIRCULATION WITH
CLAY BERM WITH FLOW METER.
2. REPORTS TO BE REVISED TO ESTIMATE
AMOUNT RECIRCULATES AND POND STORAGE
3. BEN UNDERSTANDS ALL LCRS PIPE TO VIDEO/
CLEANED PRIOR TO RENTURE
4. BEN WILL SEND MISSING JAN. REPORT
5. IT SAID I WOULD SEND INFORMATION ON
% EVAPORATION

(continue on another
sheet, if necessary)

Signature *[Signature]*

Title _____



AA AA 7/8/97
KF
Respond for me
Bob

*Lena Rd 50 permit
F.L.*

MANATEE COUNTY GOVERNMENT

Public Works Department

July 3, 1997

*has and
leachate
in hay?*

Robert Butera, P.E.
Florida Department of Environmental Protection
Division of Waste Management, Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Manatee County Sheriff's Office
Inquiry - Lena Road Landfill

Dear Mr. Butera:

Please find enclosed a memorandum received from the Manatee County Sheriff's Office requesting permission to maintain approximately 60 acres of land located within Stage III at the Landfill for purposes of hay production. The memorandum more fully explains their intent.

Your review and comments regarding their request would be greatly appreciated. An advance thank you for your time.

If you have any questions or require further information, please contact this office at 941/748-5543.

Sincerely,

Gus A. DiFonzo
Solid Waste Manager

GAD./gp

cc Captain John Potts, MSO
Len Bramble, P.E., Public Works Director
 Daniel T. Gray, Utilities Operations Manager





RECEIVED
JUL 08 1997
CHARLES B. WELLS
MANATEE COUNTY SHERIFF
FLORIDA

Sheriff



515 11th Street West
Bradenton, Florida 34205-7727
Telephone (941) 747-3011

Fax Numbers
Criminal Investigation Division (941) 748-5682
Administrative/Executive (941) 749-5401

**MANATEE COUNTY SHERIFF'S OFFICE
CORRECTIONS BUREAU**

MEMORANDUM

TO: Len Bramble
Director
Manatee County Department of Public Works

THROUGH: Major Richard Ference *RF*
Bureau Commander
Manatee County Sheriff's Department

FROM: Captain John Potts *JP*

DATE: May 28, 1997

SUBJECT: Hay Production at Lena Road Landfill

*Don
Please handle*

MAY 29 1997

At the present time, there are approximately 60 acres of fallow grassland at the Lena Road landfill. This is in stage 3 of the landfill site. This area is not being used at this time and is being mowed.

The Manatee County Sheriff's Department has a rather large beef herd to provide meat products to those incarcerated in the Manatee County Jail.

I request at this time to manage this 60 acres for the production of hay to feed the cattle. I will work closely with your department and observe all relevant rules and regulations that pertain to the landfill and surrounding areas.

It is anticipated that this area would be mowed at intervals to promote maximum growth and produce the best quality hay. The use of this idle land will be a great savings to the citizens of Manatee County.

JP/cje

cc: Sheriff Charles Wells
David Rothfuss
Lannie Christie

An Accredited Agency

Date: 7/18/97 10:47:35 AM
From: Kathy Anderson TAL
Subject: Re: Crops for Human Consumption over unlined landfills
To: Allison Amram TPA
CC: Richard Tedder TAL

What is the depth of soil on top of the landfill? I imagine that hay has a very shallow root depth. There needs to be at least enough intermediate or soil cover over any of the old waste that is at a minimum the depth of the maximum hay root depth. You should not be too much worried about leachate into the crops, only if there is leachate seeping out around the landfill cover material. I went to an old landfill in Bay County one time and there were several very large leachate seeps on that old landfill that were leaking into a nearby creek. They had to throw more soil on top and stabilize the site. Well the one good thing about having hay on the top is that it should stabilize the cap - except when they till up the soil. Do they have an operation "plan" stating how often they will till the soil and plant seed or whatever. A farming management plan of sorts. They could present some kind of report stating what they will be doing over the next 5 years or so. Are they sure they are not going to plant any other type of crop?

I don't think there is going to be any kind of threat to human health unless the root of the hay penetrates into the waste.

Francine said to check with any County Agricultural Agent (County Extension) for information on root depth of hay and farming techniques employed.

If you need to discuss human health threat then you can call Ligia Mora Applegate.

All in all it sounds like a great idea! I hope the economics work well. I have heard of other similar stories but they have turned out to not be economically viable.

Kathy

Manatee Co. Agricultural Extension
941/722-4524 Travis
Foraging Exp Expert

Travis Seawright
Ext. Livestock Agent
1303 17th St W
Palmetto
34221

N, Phos, K uptake by grass

- will not uptake heavy metals - may kill the grass (Cu, Pb, Hg) if present
- will not uptake hydrocarbons - actually
- root depth - 18" max., most w/in 12"
 - He thinks they want Bermuda grass

Date: 7/23/97 12:28:32 PM
From: Francine Joyal TAL
Subject: Re: FWD: Crops for Human Consumption over unlined landfills
To: See Below

> Francine, Kathy may already have responded, I don't know. But
>I recall that you had developed some expertise on plant uptake of
>contaminants, so perhaps you can help her out.

Thanks, Kathy asked me about crop root depth. I told her County Ag. agents would have that information. Depending on the amount of dirt covering and root depth, metal uptake may not need consideration if they don't irrigate with leachate. If leachate is used, I don't believe I would use EPA CFR Part 503. Biosolids application limits to crops probably considered the "binding" effect of organic materials. Constituents in leachate could be more soluble, making plant uptake easier. Contrary to your high opinion of my knowledge of plant uptake, I am no expert. Instead, I would start with USDA contacts (e.g., Rufus Chaney) that have worked in that area with biosolid if uptake is an issue.

To: Chris McGuire TAL
CC: Allison Amram TPA
CC: Robert Butera TPA
CC: Kim Ford TPA
CC: Kathy Anderson TAL
CC: Mary Jean Yon TAL

Date: 7/17/97 15:13
From: Allison Amram TPA
Subject: Crops for Human Consumption over unlined landfills
To: Kathy Anderson TAL
CC: Robert Butera TPA
CC: Kim Ford TPA
CC: Chris McGuire TAL
CC: Mary Jean Yon TAL

Kathy-

We have a request from Manatee County to grow hay over unlined/uncapped sections of the Lena Road landfill. The hay would be used to feed beef cattle which in turn feed inmates in the County jail. The landfill has asked us to review this request, and I really don't have an expertise here!!! Know anyone who would??? Should I refer it to the Health Dept? Ag??

Thanks for your help!

Allison

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date:

7/16/97

Number of pages including cover sheet:

2

To:

DAVE DEANAN
HIDR

Phone:

282 2404

Fax phone:

282 2440

CC:

From:

Fun FORD

Phone:

(813) 744-6100

x382

Fax phone:

(813) 744-6125

REMARKS:

☐

Urgent

☐

For your review

☐

Reply ASAP

☐

Please comment

Conversation Record

As you requested. TTX

Fun

1803 RB
SP 2/7/96
HSE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 7/15/97
Time 12:05

Subject LEONARD LANDFILL GAS SYSTEM
Permit No. _____

County MANATEE

M DAVE PELHAM

Telephone No. 2822404

Representing HDA (FAX 2822440)

[☒] Phoned Me [] Was Called [] Scheduled Meeting [] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting _____

DISCUSSED REVIEW & PERMITTING TO COMPLY
WITH TITLE I ?

AGREED THAT —

1. DAVE P WILL SEND 3 COPIES TO AIR SECTION
AND 3 TO SOLID WASTE SECTION
WITH COVER LETTER ASKING FOR REVIEW
AND COMMENTS WITHIN 60 DAYS, PRIOR
TO REQUESTING MINOR MODIFICATION FROM
SOLID WASTE SECTION (PLANS WILL BE 60%)
2. DAVE P WILL SEND FINAL PLANS (100%) WITH
REQUEST FOR MINOR MODIFICATION TO
SOLID WASTE SECTION AFTER THE 60 DAY REVIEW
WITH AIR SECTION

(continue on another
sheet, if necessary)

Signature [Signature]

Title _____

Transmit Confirmation Report

No. : 003
Receiver : 9-282-2440
Transmitter : WASTE MGT TAMPA SWDIST
Date : Jul 16 97 12:04
Time : 01'00
Mode : Norm
Pages : 02
Result : OK

Alison

Cent Road Landfill
GRADIENT
→

IF AN OUTWARD GRADIENT EXISTS
ANYWHERE, A CORRECTIVE ACTION
IS PLAN IS REQUIRED TO BE
SUBMITTED WITH THE MONTHLY DATA,
NOT AT RENEWAL .

PLEASE LET ME KNOW WHAT
YOU FIND OUT AND HOW
THEY ARE PLANNING TO CORRECT
IT AND WHEN .

THX

fan
7/17/97

SPECIFIC CONDITIONS:

29. Piezometers PZ-1 through PZ-17 and all surficial aquifer monitoring wells listed in Specific Condition #28 shall be monitored monthly for water levels to an accuracy of 0.01 feet. This information shall be used to evaluate the presence/absence of an inward gradient at the landfill at all points. This data shall be submitted **monthly** to the Department. If an outward gradient exists, steps for correcting the gradient shall be included with the data.
Amended July 21, 1994.

30. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. Documentation of an approved Quality Assurance Plan shall be submitted to the Department **annually** with the first groundwater sampling report for each year. Documentation shall include the completed signature page and the table of contents of the approved plan. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.

31. Leachate shall be sampled and analyzed **semi-annually** for the indicator parameters listed as follows:

Leachate indicator parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>
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Dissolved oxygen	Chlorides
Colors, sheens	Iron
	Mercury
	Nitrate
	Sodium
	Total dissolved solids (TDS)
	Those parameters listed in
	40 CFR Part 258 Appendix I

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR Part 258, Appendix II. For landfills which are receiving waste, if this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/2/97 Subject LEONARD LF
Time 11:40 Permit No. _____
M GUS DIFONSO County MANATEE
Telephone No. _____
Representing MANATEE COUNTY
[☒] Phoned Me [☐] Was Called [☐] Scheduled Meeting [☐] Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting

DISCUSSED SEVERAL ITEMS TO BE RESOLVED -

- ① EXPLANATION FOR LEACHATE DATA 1996-1997
WHAT IS IN ERROR, WHY, WHAT'S BEEN DONE
TO CORRECT PROBLEMS
- ② C/D WILL CONTINUE TO BE PLACED IN CLASS I
IN SEGREGATED AREA AS AGREED UPON PREVIOUSLY
- ③ WHAT WILL BE DONE TO CORRECT / MAINTAIN INLAND
GRADIENT STAGE III AND WITHIN PRIOR TO RENEWAL
- ④ OPS PLAN - GUS D. SAID CHRIS KOTCH
MAY BE CONTRACTED TO WRITE PLAN TO COMPLY
WITH SECTION K OF APPL. FORM. I SUGGESTED
EXAMPLES OF OTHERS BE REVIEWED AND CONSIDERED
GUS AGREES AND SAID THE CURRENT OPS PLAN IS
AVAILABLE BUT MAY NOT MEET ALL OF SECTION K

(continue on another
sheet, if necessary)

Signature E (L)

Title _____



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

April 30, 1997

Mr. Ben Alex
Solid Waste Technical Coordinator
Manatee County Public Works Department
Solid Waste Division
3333 Lena Road
Bradenton, Florida 34202

Mr. John R. Marquardt, P.E.
Professional Service Industries, Inc.
4400 140th Avenue North, Suite 100
Clearwater, Florida 34622

Subject: Groundwater Monitoring Plan Biannual Evaluation, October 10, 1996 Response
Lena Road Landfill, Permit No. SO41-211176
Manatee County

Dear Messrs. Alex and Marquardt:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the October 10, 1996 Groundwater Monitoring Plan Biannual Evaluation Response prepared by Professional Service Industries, Inc. (PSI). This document was resubmitted, signed & sealed by a professional engineer at the FDEP's request on December 23, 1996. Comments Nos. 1, 2, 3, 4.2, 5, and 6 were addressed in the report. A response to comment 4.2 is provided below.

- 4.2 The response stated that the unusually high groundwater elevation in well SA-2 may be from the well connecting the surficial and confined aquifers. If this is so, the well needs to be fixed to prevent mixing of the two aquifer waters, or abandoned. Please evaluate this well, and see if the screened interval (15 - 115 feet below land surface), water quality and water elevations indicate connection of the aquifers. Please provide the FDEP with the results of this evaluation when it is complete, but no later than January 2, 1998.

Specific Condition No. 41 of the landfill's operating permit requires the next ground water monitoring plan evaluation 90 days prior to permit expiration. This report is due to the FDEP January 2, 1998. The report should evaluate the 1996 and 1997 water quality data. It should include: ground water flow maps with elevations collected over only a one-day period, which should coincide with the sampling events. (Please remember that a ground water flow map is required by F.A.C. Rule 62-701.510(9)(a) to be submitted with the semi-annual testing results). In addition, the evaluation or the permit application should include a proposed remedy for the existing outward gradient in Section III of the landfill by monitoring points GC-1A and GC-4; these wells also have the poorest water quality of the landfill's monitoring network.



MANATEE COUNTY
GOVERNMENT
Public Works Department

Allison
Any comments?
Kim
3/3/97

February 24, 1997

Allison Amram, P.G.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Manatee County Solid Waste Management Facility
Lena Road Landfill

Dear Ms. Amram:

Enclosed please find the January 1996, monthly ground water gradient water balance and leachate tracking summary for the above referenced subject. Calibration for the gas probe was completed and the instrument received in time for January's measurement. An oversight on our part, depth to groundwater measurements for January were not taken, thus no water gradient report is included.

Comparing well boring logs against actual field measurements, there appears a need to have all of the monitoring wells and piezometers cleaned free of all silt that has accumulated in the wells. We will contract with our vendor to have the wells and piezometers cleaned. Upon completion, a report summarizing the work including the total depth for each well will be provided to your office. If you have any questions or require additional information please call me at 941-748-5543.

not attached

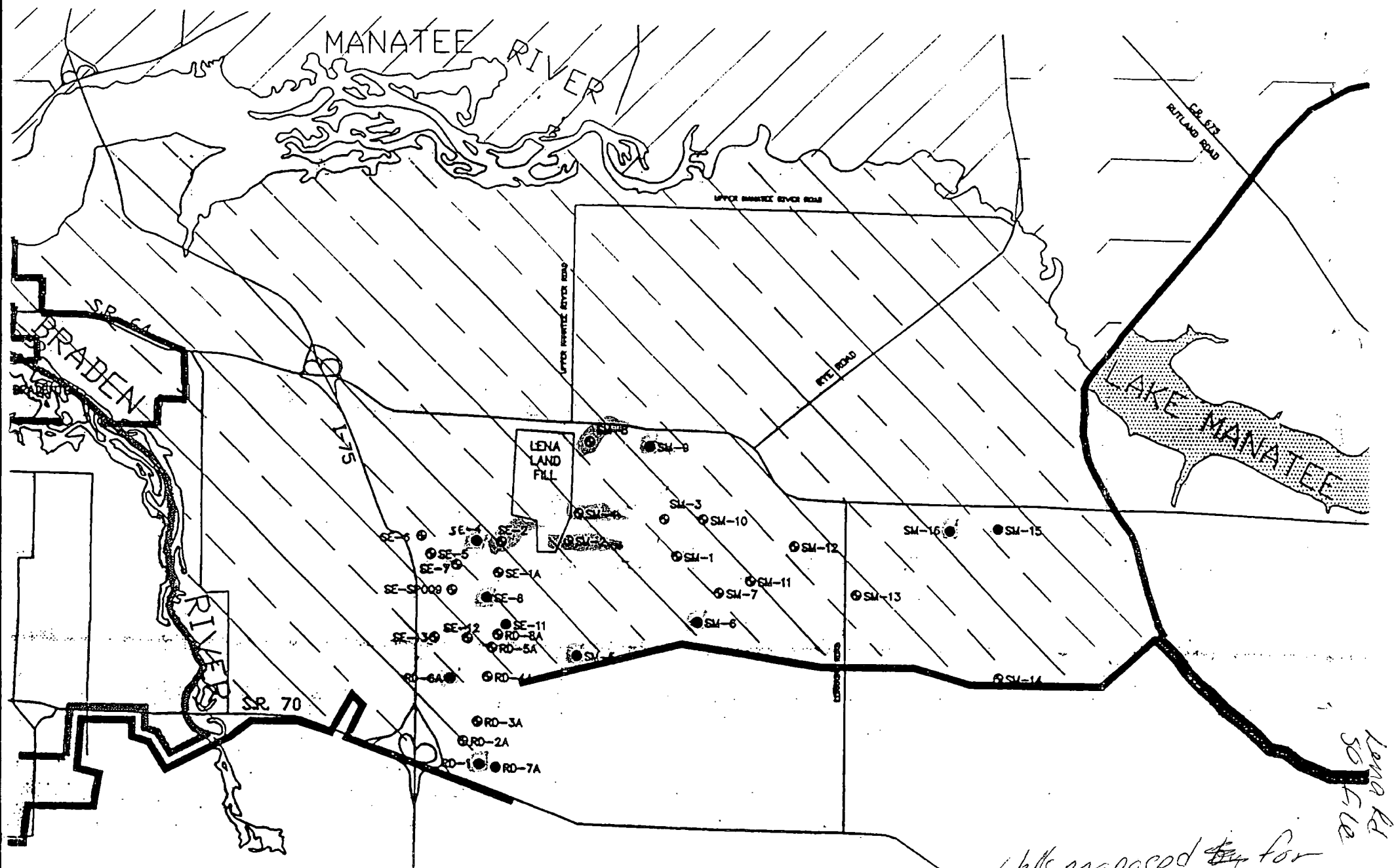
this is file

Sincerely,

Benjamin L. Alex

Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Kim Ford, P.E., FDEP
Len Bramble, P.E., Public Works Director
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *GA*



To: Ben Alex
 From: Allison Amman
 Fax: 941/795-3451

Wells proposed by for
 abd by DW program -
 WWT Sprayfield - "SW Service Area"
 Joe ^{may} - contact @ FDEP 813/744-6100
 X342

Transmit Confirmation Report

No. : 002
Receiver : 819417953451
Transmitter : WASTE MGT TAMPA SWDIST
Date : Jun 25 97 13:29
Time : 01'05
Mode : Norm
Pages : 01
Result : OK

APPLICATION TRACKING SYSTEM

07/14/97

APPL NO:300416

APPL RECVD:01/29/97 TYPE CODE:SO SUBCODE:MM

LAST UPDATE:06/25/97

DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:___

APPLICATION COMPLETE:03/28/97

DER PROCESSOR:FORD

APPL STATUS:IS DATE:06/24/97 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF:___ (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING

DISTRICT:40 COUNTY:41

(Y/N) N DGC HEARING REQUESTED

LAT/LONG:27.28.00/82.27.00

(Y/N) N PUBLIC NOTICE REQD?

BASIN-SEGMENT:___

(Y/N) N GOV BODY LOCAL APPROVAL REQD?

CODE #:_____

(Y/N) Y LETTER OF INTENT REQD? (I/ISSUE D/DENY)

ALT#:_____

PROJECT SOURCE NAME:LENA ROAD LANDFILL

STREET:3333 LENA RD.

CITY:BRADENTON

STATE:FL

ZIP:34203

PHONE:_____

APPLICATION NAME:MANATEE CO. PUBLIC WORKS

STREET:4501 66TH ST. W.

CITY:BRADENTON

STATE:FL

ZIP:34210

PHONE:813-792-8811

AGENT NAME:_____

STREET:_____

CITY:_____

STATE:_____

ZIP:_____

PHONE:_____

FEE #1 DATE PAID:01/29/97

AMOUNT PAID:00250

RECEIPT NUMBER:00119937

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - - - / / / / /
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - / / / / /
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. - - - - - / / / / /
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - 02/27/97--03/28/97
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / / /
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / / /
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / / /
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / / /
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / / /
F DATE LAST 45 DAY LETTER WAS SENT - - - - - / / / / /
G DATE FIELD REPORT WAS REQ--REC - - - - - / / / / /
H DATE DNR REVIEW WAS COMPLETED - - - - - / / / / /
I DATE APPLICATION WAS COMPLETE - - - - - 03/28/97
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - - - - / / / / /
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - - / / / / /
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - / / / / /
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - - - - / / / / /
N WAIVER DATE BEGIN--END (DAY 90) - - - - - / / / / /

COMMENTS:PERMIT MODIFICATION FOR NEW SEQUENCE OF FILLING.
IS A MODIFICATION OF PERMIT #S041-211176.

AREA: SWD_____

ash Receiving Application
Collection Point Log Remittance

CRAF006A

Tot: _____ \$250.00

-----+-----
 SYS\$REMT: 152203 Type: CP Recvd Date: 29-JAN-1997 Status: RECEIVED
 SYS\$RCPT: 119937 PNR: Check #: 1205179 Amount: 250.00
 SSN/FEI#: Name: MANATEE CO BD OF CO COMM
 First: Middle: Title: Suf:
 Address1: P.O. BOX 4410 Short Comments:
 Address2: L-LENA RD LANDFILL
 City: BRADENTON ST: FL Zip: 34206- Country: _____
 -----+-----

-----+-----> P A Y M E N T (S) <-----+-----

	Distr	CL	Object	Payment	Reference#	Applic/ Fund	S T A CO
SYS\$PAYT	Area..	Code/Description.....	Amount.....				
156674	SWD	002245 SOLID WASTE-OPE	\$250.00	SO41300416	PFTF		
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

-----+-----
 COMMIT FREQUENTLY \$250.00 Payment total
 Press <TAB> to accept Collection Point or enter F&A. _____
 Count: *1 <Replace>



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT

JUN 24 1997

Manatee County Public Services
Mr. Lenox Bramble
4410 66th Street West
Bradenton, FL 34210

Dear Mr. Bramble:

Enclosed is modification #300416 to Operation Permit Number SO41-211176, issued pursuant to Section(s) 403.087(1), Florida Statutes.

A person whose substantial interests are affected by the Department's proposed agency action may file a timely petition for an administrative hearing under sections 120.569 and 120.57 of the Florida Statutes, or may choose to pursue mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth below.

A person may pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the applicant, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

- (a) The names, addresses, and telephone numbers of any persons who may attend the mediation;
- (b) The names, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- (c) The agreed allocation of the costs and fees associated with the mediation;
- (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;

JUN 24 1997

Manatee County Public Services
Mr. Lenox Bramble
Permit No.: SO41-211176

Page Two

(e) The date, time, and place of the first mediation session, or a deadline for holding the first session, of no mediator has yet been chosen;

(f) The name of each party's representative who shall have authority to settle or recommend settlement; and

(g) Either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.

(h) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that they will apply for challenging the agency action and electing remedies under those two statutes.

The petition for an administrative hearing must conform to the requirements of Chapters 62-103 and 28-5.201, F.A.C., and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit modification is final and effective on the date filed with the Clerk of the Department unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit modification will not be effective until further Order of the Department.

Manatee County Public Services
Mr. Lenox Bramble
Permit No.: SO41-211176

JUN 24 1997
Page Two

When the Order (Permit Modification) is final, any party to the Department has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

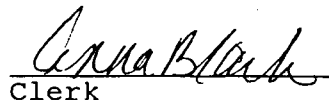
KBF/ab
Attachment

cc: Ben Alex, Manatee County
Kathy Anderson, FDEP Tallahassee
Robert Butera, P.E., FDEP Tampa
Danielle Nichols, FDEP Tampa

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on JUN 24 1997 to the listed persons.

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


Clerk

JUN 24 1997
Date

RULES OF THE ADMINISTRATION COMMISSION, MODEL RULES OF PROCEDURE
CHAPTER 28-5, DECISIONS DETERMINING SUBSTANTIAL INTERESTS
PART II, FORMAL HEARINGS
A) PREHEARING PROCEDURES

28-5.201 Initial of Formal Proceedings.

(1) Initiation of formal proceedings shall be made by petition to the Agency responsible for rendering final Agency action. The term petition as used herein includes any application or other document which expresses a request for formal proceedings. Each petition should be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double-spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each Agency affected and each Agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners, and an explanation of how his/her substantial interests will be affected by the Agency determination;

(c) A statement of when and how petitioner received notice of the Agency decision of intent to render a decision;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;

(f) A demand for relief to which the petitioner deems himself entitled; and

(g) Other information which the petitioner contends is material.

(3) Upon receipt of a petition for formal proceedings, the Agency shall either accept or deny the petition, and if accepted shall elect either to conduct the hearing itself through the Agency head, or member thereof, assign a person authorized by Subsection 120.57(1)(a) or other authority, or request that a Hearing Officer from the Division of Administrative Hearings be assigned to conduct the hearing.

(a) A petition may be denied if the petitioner does not state adequately a material factual allegation, such as a substantial interest in the Agency determination, or if the petition is untimely.

(b) The Agency shall promptly give written notice to all parties of the action taken on the petition, and shall state with particularity its reasons therefore.

(4) If the Agency elects to request that a Hearing Officer of the Division of Administrative Hearings be assigned to conduct the hearing, the Agency shall forward the petition, and all materials filed with the Agency, to the Division of Administrative hearings, and shall notify all parties of its action.

Specific Authority: 120.53(1), 120.54(10), F.S.
Law Implemented: 120.57, F.S.
History: New 3-23-80

SECTION 62-103.155, FLORIDA ADMINISTRATIVE CODE
RULES OF ADMINISTRATIVE PROCEDURE
FINAL AGENCY ACTION (NON-RULEMAKING) AND APPEAL

62-103.155 Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action by the Department may file a petition for formal administrative hearing in accordance with this rule if the person disputes the material facts upon which the Department's action is based.

(b) Any person whose substantial interests may be affected by proposed or final action by the Department may file a petition for informal administrative hearing in accordance with this rule if the person objects to the Department's action but does not dispute the material facts upon which the Department's action is based.

(2) A petition for formal or informal administrative hearing pursuant to section 120.57, F.S., shall contain the following information:

(a) The name, address, and telephone number of each petitioner. If the petitioner challenges a Department action or proposed action on a permit application, the applicant's name and address, the Department permit file number and the county in which the project is proposed shall also be included;

(b) A statement of how and when each petitioner received notices of the Department action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of those material facts (i.e., those facts upon which the Department's action or proposal is based) is disputed by petitioner. If no facts are disputed, petitioner shall so state;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action;

(g) A statement of relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

(3)(a) A petition shall be in the form required by this rule and must be filed (received) in the Office of General Counsel of the Department within the following number of days after receipt or publication (whichever occurs first) of notice of proposed agency action or of notice of agency action:

1. Petitions concerning Department action or proposed action on applications for permits (except permits for hazardous waste facilities): 14 days;

2. Petitions concerning Department action or proposed action on applications for hazardous waste facility permits: 45 days;

3. Petitions concerning notices of violation when no informal conference is held: 20 days after receipt of the notice of violation;

4. Petitions concerning notices of violation when an informal conference is held: 10 days after receipt of notice of completion of the informal conference;

5. Petitions concerning other Department actions or proposed actions: 21 days.

The petitioner shall also serve a copy of the petition on all other parties to the proceeding, as identified in the published notice, at the time of filing.

(b) Failure to timely file a petition within the applicable time period after receipt of notice of agency action or receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(4) If a petition is filed that does not substantially comply with the requirements of subsection (2) of this rule, the Department shall issue an order dismissing the petition with leave to file an amended petition complying with the requirements of this rule within 15 days of service of the order. If an amended petition complying with this rule is not filed (received) within 15 days of service of the order, the petitioner's right to a proceeding under Section 120.57, F.S., is waived.

(5) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 62-103.150, F.A.C., a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within 14 days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 62-103.150, F.A.C. Failure of the person to make inquiry with the Department within 14 days after obtaining such knowledge may stop the person from obtaining an administrative proceeding on the agency action.

(6)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(7) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal shall be limited to:

(a) the application and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(8) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(9) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by the applicant of the Department's notification pursuant to Section 403.0876, F.S., that additional information is required.

Specific Authority: 120.53, 403.0876, 403.815, F.S.

Law Implemented: 120.53, F.S.

History: New 9-20-79; Amended 4-28-81; Transferred from 17-1.62 and Amended 6-1-84; Amended 10-19-88, Formerly 17-103.155.



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

JUN 24 1997

PERMITTEE:

Manatee County Public Services
Mr. Lenox Bramble
4410 66th Street West
Bradenton, FL 34210

**RE: Modification #300416 to existing operation permit
Permit No.: SO41-211176, Manatee County
Manatee County Solid Waste Management Facility**

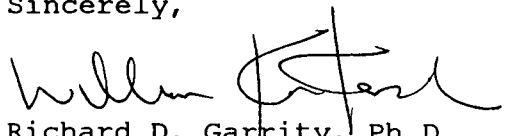
Dear Mr. Bramble:

Your existing operation permit No. SO41-211176 is hereby modified as follows:

<u>SPECIFIC CONDITIONS</u>	<u>FROM</u>	<u>TO</u>	<u>TYPE OF MODIFICATION</u>
#1.	Existing	Amended	Documents and Activities
#2.	Existing	Amended	Alternative Cover
#9.	Existing	Amended	Sequence of Filling
#48.		New	Air Requirements

This letter and its attachments constitute a complete permit and replace all previous permits and permit modifications for the above referenced facility.

Sincerely,


Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

RDG/kbfb
Attachments



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

PERMITTEE

Manatee County Public Services
c/o Mr. Lenox Bramble
4410 66th Street West
Bradenton, Florida 34210

PERMIT/CERTIFICATION

GMS ID No: 4041C02025
Permit No: S041-211176
Date of Issue: 4/22/1993
Expiration Date: 4/1/98
County: Manatee
Lat/Long: 27°28'00"N
82°27'00"W
Sec/Town/Rge: 1,6 & 31/34S/19E
Project: Manatee County Solid
Waste Management Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-3, 62-4, 62-25, 62-522, 62-550, 62-701, 62-710, and 62-711. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with department and made a part here of and specifically described as follows:

To operate a sanitary landfill and related facilities (approximately 300 acres), referred to as the Manatee County Solid Waste Management Facility (formerly referred to as the Lena Road Landfill), subject to the specific conditions attached, located at 3333 Lena Road, Bradenton, Manatee County, Florida. The specific conditions attached are for the operation of:

1. Class I Landfill Disposal Facility
2. Construction and Demolition Debris Disposal Facility
(Deleted July 3, 1995)
3. Waste Tire Processing Facility
4. Used Oil Collection Center

Replaces Permits No.: SC41-095667, SC41-095658, S041-118353

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action will be initiated.

GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
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), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, State, or local laws or regulations. This permit is not 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 this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are 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.

GENERAL CONDITIONS

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 and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- (a) Have access to and copy any records that must be kept under conditions of the permit;
- (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- (c) Sample or monitor 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 provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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 for revocation of this permit.

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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, 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 or a copy thereof shall be kept at the work site of the permitted activity.
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:
 - (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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:
 1. the date, exact place, and time of sampling or measurements;
 2. the person responsible for performing the sampling or measurements;
 3. the dates analyses were performed;
 4. the person responsible for performing the analyses;
 5. the analytical techniques or methods used;
 6. the results of such analyses.

GENERAL CONDITIONS:

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 corrected promptly.

SPECIFIC CONDITIONS:

1. This site includes operation of a Class I landfill, waste tire processing facility, and used oil collection center and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-25, 62-522, 62-550, 62-701, 62-710, and 62-711, Florida Administrative Code.

a. This permit is valid for operation of the Class I landfill and related facilities in accordance with the information submitted by Manatee County on March 31, April 1, May 4, May 18, May 20, May 22, June 26, October 13, November 30, December 16, 1992, and February 18, 1993; and Revised Groundwater Monitoring Plan by Ardaman & Associates dated January 11, 1990; and in accordance with all applicable requirements of Department rules. This permit allows the relocation of the waste tire processing facility in accordance with the plans dated June 28, 1995. This permit allows the yard trash mulching area improvements and operation in accordance with the letter dated June 18, 1996 and site plans by Manatee County received on July 5, 1996. This permit allows the installation of gas vents in accordance with the drawing and information by Manatee County received January 29, 1997 and information by HDR received March 28, 1997.

b. This permit includes the long-term care and maintenance of the previously closed disposal areas associated with the site. Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification, JUN 24 1997.
Amended July 3, 1995; July 18, 1996;

2. All solid waste disposed of in the Class I area shall be covered as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class I area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each working day.

b. Alternate initial cover materials not identified herein shall be approved by the Department prior to use at the facility. For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin.

- Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in six (6) inch compacted layer, may be used as initial cover within the bermed working area.

SPECIFIC CONDITIONS:

- The fines produced from yard trash processing, unscreened, and then mixed in the ratio of 25% unscreened fines to 75% soil, and applied in a six (6) inch compacted layer may be used as initial cover within the bermed working area. 80% of the unscreened fines shall pass through a 1/2" screen prior to mixing with soil. At least one sample shall be tested annually to verify particle size distribution.
 - c. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.
 - d. As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area. **Interceptor berms shall be maintained at the active working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.
 - e. Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed in accordance with F.A.C. 62-701.500(7)(g) and all applicable requirements of Department rules.
 - f. Stormwater shall be managed as required by F.A.C. 62-701.500(10) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Sediment, as a result of erosion, and excess vegetation, which restricts the stormwater flow shall be removed within three (3) working days from all stormwater conveyances. Regrading of the stormwater conveyances to prevent ponding and the exposure of waste within the conveyances shall be performed as required. Documentation of all inspections and repairs shall be kept on file at the facility.
Amended July 21, 1994; July 18, 1996; JUN 24 1997.
3. The Class I disposal areas shall be operated to maintain the leachate levels below the natural water table outside the slurry wall in order to maintain an inward gradient within the landfill.
4. The spray irrigation of leachate and leachate recirculation at this facility are not allowed without prior approval by the Department.
5. Deleted July 3, 1995.

SPECIFIC CONDITIONS:

6. The prohibitions of F.A.C. Rules 62-701.300 and 62-711.400 shall not be violated.

Amended July 3, 1995.

7. Storage at the waste tire processing facility is limited to 560 tons of waste tires and shall comply with the requirements of FAC Rule 62-711.530. At least 75 percent of the whole tires, used tires, and processed tires that are delivered to or are contained on the site of the waste tire processing facility at the beginning of each calendar year shall be processed or removed for disposal or recycling from the facility during the year, or disposed of at a permitted solid waste management facility. All waste tires and processed tires shall be stored in accordance with the waste tire site requirements in Rule 62-711.540, FAC.

- Reports summarizing facility operations shall be submitted quarterly to the Department by January 20th, April 20th, July 20th, and October 20th, pursuant to FAC Rule 62-711.530(5).

- A fire safety survey shall be conducted at least annually and the survey report shall be made part of the quarterly report due April 20th.

- Stormwater shall be managed as required by F.A.C. 62-711.540(3)(a). The site shall be managed to divert stormwater around and away from the storage piles.

- A copy of the facility's emergency preparedness manual shall be kept at the site and a copy shall be kept at an off-site location.

- The permittee shall maintain compliance with the financial responsibility requirements of F.A.C. Rule 62-711.510(2), either separately or as part of the financial assurance specified in this landfill operation permit, annually by September 1st.

- This facility shall be closed in accordance with the requirements of FAC Rule 62-711.700. The waste tire processing facility owner or operator shall notify the Department at least ninety (90) days prior to the date when tires will no longer be accepted for storage or processing, as required by F.A.C. 17-711.700(2).

Amended July 3, 1995.

8. This facility shall have at least one trained operator at the landfill during all times when the landfill receives waste. Trained operators are those who have satisfied the requirements of Chapter 62-703, F.A.C. All landfills shall have at least one spotter at each working face at all times when the landfill receives waste to detect unauthorized wastes. The owner or operator shall implement a load checking program to detect and discourage attempts to dispose of unauthorized wastes at the landfill. The load checking program shall consist of the minimum requirements specified in FDEP Rule 62-701.500(6) which includes examining at least three random loads of solid waste received each week by the landfill operator.

SPECIFIC CONDITIONS:

9. The landfill owner or operator shall have an operational plan that provides written, detailed instructions for the daily operation of the landfill. The operation plan shall be kept at or near the landfill facility and shall be accessible to landfill operators. The operation plan shall be revised and resubmitted to the Department for approval if operational procedures change. The plan shall include procedures for all the items listed in FDEP Rule 62-701.500(2). A schedule for routine maintenance of the leachate collection and removal system shall be established to ensure operation of the system. The maintenance schedule shall be a part of the facility operation plan. Operating records shall be maintained as required by FDEP Rule 62-701.500(3). Operation of Stage II and III shall not be allowed until a comprehensive sequence of filling and closure plan has been submitted to and approved by the Department and assurance has been provided that an inward gradient is continuously maintained within the landfill disposal areas. The sequence of filling shall prevent ponding or low spots and minimize erosion. The sequence of filling shall be in accordance with the March 1997 Sequential Filling Plan by HDR received March 28, 1997.

Amended July 18, 1996; JUN 24 1997.

10. The owner or operator of the facility shall weigh all solid waste as it is received. Landfill operators shall record, in tons per day, the amount of solid waste received and shall estimate the amount of wastes listed in FDEP Rule 62-701.500(4)(b). Waste reports shall be compiled monthly, and copies shall be submitted to the Department quarterly.

11. The landfill operator is responsible for leachate level monitoring, sampling, analysis of the landfill leachate, and for providing copies of the leachate analysis to the Department. The landfill operator shall have a prepared contingency plan to handle leachate collection, removal, and treatment problems such as interruptions of discharges to a treatment plant.

a. Leachate generation reports shall be compiled monthly and submitted to the Department as requested. Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch.

b. One hundred and eighty (180) days prior to permit expiration, the entire leachate collection and removal system, force mains and gravity pipelines, shall be video inspected and pressure tested where possible to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The results of the inspection and testing shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

Amended July 21, 1994, July 18, 1996.

SPECIFIC CONDITIONS:

12. This permit is valid for implementation of site improvements to enhance leachate collection in Stage III as proposed by Manatee County in their submittal dated July 1, 1994. These improvements shall be completed and Certification of Construction Completion provided by **January 1, 1995**. Any construction not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. After all significant initial construction of the site or facility components have been completed, the engineer or the authorized public officer shall complete a Certification of Construction Completion, Department Form 62-701.900(2), and contact the Department to arrange for a Department representative to inspect the facility in the company of the permittee, the engineer, and the proposed on-site facility operator. The inspection is to ensure that the site or facility components have been developed in accordance with the approved permit. Certification and Record Drawings shall be submitted to the Department within ninety (90) days after the completion of construction.

Amended July 21, 1994.

13. The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such control shall minimize the creation of these nuisance conditions on adjoining property. Complaints received from the general public and confirmed by Department personnel upon site inspection shall constitute a nuisance condition and the permittee must take immediate corrective action to abate the nuisance.

14. Landfills that receive biodegradable wastes shall have a gas monitoring and control system designed to prevent explosions and fires, and to minimize off-site odors and damage to vegetation. The owners or operators shall implement a routine gas monitoring program to ensure that the standards of FDEP Rule 62-701.400(10) are met. The gas monitoring points, GMP 1 - 8 and gas monitoring wells, GMW 1-18, as shown on the methane gas monitoring location map by Manatee County submitted on November 8, 1994, shall be sampled for the Lower Explosive Limit (LEL) of methane.

a. Landfill gas shall be monitored at least quarterly, as required by F.A.C. 62-701.500(9). Landfill gas control and monitoring shall be operated to comply with F.A.C. 62-701.400(10).

b. The results of the gas monitoring as required by F.A.C. 62-701.400(10), shall be submitted by the following dates:

Quarter 1	April 15th
Quarter 2	July 15th
Quarter 3	October 15th
Quarter 4	January 15th

SPECIFIC CONDITIONS:

- c. If the Lower Explosive Limit (LEL) is greater than 25% inside structures both on or off of the landfill site, or greater than 100% at the property boundary, the owner shall submit to the Department within 7 days a remediation plan detailing the nature and extent of the problem and the proposed remedy. The remedy shall be completed within 60 days of detection unless otherwise approved by the Department.

Amended 11/15/94.

15. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous waste is a solid waste identified by the Department as a hazardous waste in Chapter 62-730, Florida Administrative Code. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule.

16. The disposal or control of any "special wastes" at the site shall be in accordance with FAC Rules 62-701.300 and 62-701.520, and any other applicable Department rules, to protect the public safety, health and welfare. "Special Wastes" means solid wastes that can require special handling and management, including but not limited to white goods, waste tires, used oil, mattresses, furniture, lead-acid batteries, asbestos, and biological wastes.

17. All yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months. Dust control methods, fire protection and control shall be provided. All waste other than yard trash, and incidental amounts of other wood wastes, stored outdoors in containers shall be covered with waterproof covers. A report summarizing these operations shall be submitted annually to the Solid Waste Section, Southwest District Office. Quarterly reports of yard waste are also acceptable to the Department.
Amended July 18, 1996.

18. The permittee shall maintain a program which prohibits the disposal of bulk industrial wastes which operation personnel reasonably believe to either be or contain hazardous waste, without first obtaining a chemical analysis of the material showing the waste to be non-hazardous. The chemical analysis of any such material so placed in the landfill, along with the customers name and date of disposal, shall be kept on file by the permittee on-site.

19. Open burning of solid waste is prohibited except in accordance with Rule 62-701.520(2), F.A.C. Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permittee air curtain incinerator in accordance with Rule 62-2.500(1)(e), F.A.C. Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

SPECIFIC CONDITIONS:

20. A closure permit application shall be required ninety (90) days prior to final acceptance of waste for each landfill portion of the site. The final cover shall be placed over the entire surface of each completed portion of the filled areas within one hundred and eighty (180) days after final waste deposit date for each area.
21. All solid waste, recovered materials or residues handled at the facility shall be stored in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local and state regulations. Recovered resources resulting from the facility and which may be offered for sale shall comply with applicable regulations of all appropriate state agencies.
22. The site shall continue to have a surface water management system operated and maintained to prevent surface water flow onto the facility site, and a stormwater runoff control system operated and maintained to collect and control stormwater as indicated in the original construction permit submittal. Any significant modification of the approved stormwater design must be resubmitted to the Department for approval prior to implementation.
23. The owner or operator shall control mosquitoes and rodents or request such control measures from the local mosquito control office, so as to protect the public health and welfare.
24. The permittee shall properly maintain the site. This includes erosion control, maintenance of grass cover, and prevention of ponding, leachate control system maintenance, and gas venting system repairs.
25. The Used Oil Collection Center shall comply with FAC Chapter 62-710 and 40 Code of Federal Regulations (CFR) 280 and 281, and all applicable requirements of Department rules. Fuel storage shall comply with FAC Chapter 62-761, 62-762, and 40 CFR 280 and 281. Discharges are not allowed and are subject to FAC Chapter 62-770 for cleanup.
26. In the event of damage to any portion of the landfill site facilities regulated by this permit or failure of any portion of the landfill systems, the permittee shall immediately notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department within one week following the occurrence.
27. A trained supervisor or foreman shall be responsible for maintaining the facility in an orderly, safe, and sanitary manner. Sufficient personnel shall be employed to adequately operate the facility in compliance with this permit.

SPECIFIC CONDITIONS:

28. The groundwater monitoring wells are located as per the information submitted as follows:

Well Number	Aquifer	Well Type
LR11-1	Surficial	Detection/Compliance
LR11-2	Surficial	Detection/Compliance
LR11-3	Surficial	Detection/Compliance
LR11-4	Surficial	Detection/Compliance
LR11-5	Surficial	Detection/Compliance
MW-1	Surficial	Background
MW-2	Surficial	Detection/Compliance
MW-3	Surficial	Detection/Compliance
MW-5	Surficial	Detection/Compliance
MW-6	Surficial	Detection/Compliance
CW-4	Surficial	Compliance
CW-5A	Surficial	Detection/Compliance
GC-1A	Surficial	Detection/Compliance
GC-2	Surficial	Detection/Compliance
GC-3	Surficial	Detection/Compliance
GC-4	Surficial	Detection/Compliance
GC-5	Surficial	Detection/Compliance
GC-6	Surficial	Background
SMR-1	Surficial	Background
SA-2	Artesian (deep)	Detection/Compliance
SA-3	Artesian (deep)	Detection/Compliance
SA-4	Artesian (deep)	Detection/Compliance
SA-5	Artesian (deep)	Detection/Compliance
SA-6	Artesian (deep)	Detection/Compliance
SA-7	Artesian (deep)	Detection/Compliance
SA-8	Artesian (deep)	Detection/Compliance
SMR-2	Artesian (deep)	Background

The locations of the wells are shown on Figures 1 and 2, attached. Wells located adjacent to the slurry wall function as both detection and compliance wells.

All wells are to be clearly labelled and easily visible at all times.

Within ninety (90) days after issuance of this permit, a surveyed drawing shall be submitted showing the location of all monitoring wells (active and abandoned) in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and the elevation of the top of the well casing to the nearest .01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification number, location and elevation of all permanent benchmarks) and/or corner monument marker(s) at the site. The survey shall be conducted by a registered Florida land surveyor. Amended July 21, 1994.

SPECIFIC CONDITIONS:

29. Piezometers PZ-1 through PZ-17 and all surficial aquifer monitoring wells listed in Specific Condition #28 shall be monitored monthly for water levels to an accuracy of 0.01 feet. This information shall be used to evaluate the presence/absence of an inward gradient at the landfill at all points. This data shall be submitted **monthly** to the Department. If an outward gradient exists, steps for correcting the gradient shall be included with the data.
Amended July 21, 1994.

30. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. Documentation of an approved Quality Assurance Plan shall be submitted to the Department **annually** with the first groundwater sampling report for each year. Documentation shall include the completed signature page and the table of contents of the approved plan. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.

31. Leachate shall be sampled and analyzed **semi-annually** for the indicator parameters listed as follows:

Leachate indicator parameters:	
<u>Field Parameters</u>	<u>Laboratory Parameters</u>
Specific conductivity	Total Ammonia - N
pH	Bicarbonate
Dissolved oxygen	Chlorides
Colors, sheens	Iron
	Mercury
	Nitrate
	Sodium
	Total dissolved solids (TDS)
	Those parameters listed in
	40 CFR Part 258 Appendix I

In addition, leachate shall be sampled and analyzed **annually** for the parameters listed in 40 CFR Part 258, Appendix II. For landfills which are receiving waste, if this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials.

SPECIFIC CONDITIONS:

Any leachate which is not recirculated or taken to a permitted domestic wastewater treatment facility shall be treated or managed so that no contaminant exceeds the regulatory level. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

Amended July 21, 1994.

32. In accordance with FAC Rule 62-522.600, any new wells as part of the Groundwater Monitoring System shall be constructed and all wells sampled for the parameters listed in 62-701.510(8)(a) and (d) and the data submitted to the Department within ninety (90) days of well completion. The permittee shall ensure that the groundwater monitoring system adequately monitors the existing site.

33. Within ninety (90) days after completion of any new wells the following information shall be provided:

Well identification	Driller's Log
Latitude/Longitude	Total depth of well
Aquifer monitored	Casing diameter
Screen Type and slot size	Casing type and length
Screen length	SWFWMD well construction
Well seal and filter pack	permit numbers
type and thickness	
Elevation at top of pipe	
Elevation at land surface	

34. All piezometers and wells not a part of the approved groundwater monitoring plan are to be plugged and abandoned in accordance with FAC Rule 62-532.500(4), and the Southwest Florida Water Management District. Within ninety (90) days of abandonment, the permittee shall submit a written report to the Department providing verification of the plugged program. A written request for exemption to the plugging of a well must be submitted to the Department's Solid Waste Section for approval.

35. All detection wells and background wells shall be sampled and analyzed **semi-annually** for the ground water indicator parameters listed in 62-701.510(8)(a) as follows:

Ground water indicator parameters:

<u>Field parameters</u>	<u>Laboratory parameters</u>
Static water level in wells	Total Ammonia - N
before purging	Chlorides
Specific conductivity	Iron
pH	Mercury
Dissolved oxygen	Nitrate
Turbidity	Sodium
Temperature	Total dissolved solids (TDS)
Colors, sheens	Those parameters listed in
	40 CFR Part 258 Appendix I

SPECIFIC CONDITIONS:

Additional samples, wells, and parameters may be required based upon subsequent analysis.

Amended July 21, 1994.

36. In accordance with 62-701.510(7), if at any time background groundwater standards are exceeded in the detection wells, the permittee has fifteen (15) days after the sampling data is received in which to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current groundwater conditions at the facility. If the exceedance of groundwater standards in the detection wells is confirmed, then assessment monitoring shall be initiated as detailed in F.A.C. Rule 62-701.510(7).

37. If any monitoring well becomes damaged or inoperable, the permittee shall notify the Department of Environmental Protection immediately. A detailed written report to the Department shall follow within **seven (7) days**. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent the recurrence. All monitoring well design and replacement shall be approved by the Department prior to installation and shall require a permit modification. Replacement of piezometers shall not require a permit modification.

38. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with methods approved by the Department in accordance with Chapters 62-4.246 and 62-3.401, F.A.C. Approved methods are published by the Department or as published in Standards Methods, A.S.T.M., or EPA methods shall be used. Approved methods for chemical analyses are summarized in the Federal Register, December 1, 1976 (41FR52780) except that turbidity shall be measured by the Nephelometric Method.

39. All water quality monitoring analyses shall be reported on the Department Quarterly Report on Groundwater Monitoring Form 62-1.216(2). The permittee shall submit to the Department the results of the water quality analysis, **by July 15th and January 15th for the semi-annually periods January - June and July - December, respectively**. The results shall be sent to the Solid Waste Section, Department of Environmental Protection, Southwest District office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8313.
Amended July 21, 1994.

40. The permittee shall ensure that the water quality standards for Class G-II groundwaters will not be exceeded at the boundary of the zone of discharge according to Sections 62-3.402 and 62-3.404, F.A.C. The zone of discharge shall extend horizontally to the property line or one hundred (100) feet beyond the waste management area, whichever is less.

SPECIFIC CONDITIONS

41. **Every two years** and prior to **ninety (90) days before the expiration** of the Department Permit, the permittee shall submit an evaluation of the Groundwater Monitoring Plan as per F.A.C. Rule 62-701.510(9)(b). The evaluation shall include all applicable information as required by F.A.C. Rule 62-701.510(9), and shall include an assessment of the effectiveness of the existing landfill design and operation as related to the prevention of groundwater contamination. Any groundwater contamination that may exist, shall be addressed as part of a groundwater investigation for the landfill assessment. The Groundwater Monitoring Plan shall be adequate to monitor any modifications to the existing landfill site including but not limited to closure. The permittee shall submit a response plan for correcting the outward gradient conditions as part of its first evaluation.
Amended July 21, 1994.

42. The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. Rule 62-701.630. All costs for closure and long-term care shall be adjusted and submitted annually to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

43. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professionals who prepared or approved them.

44. Prior to **90 days before the expiration** of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules.

45. The permittee shall be aware of and operate under the attached "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

46. By acceptance of this Permit, the permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

47. Deleted July 3, 1995.

SPECIFIC CONDITIONS:

48. Air Requirements.

a. An air construction permit is not required for the landfill unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

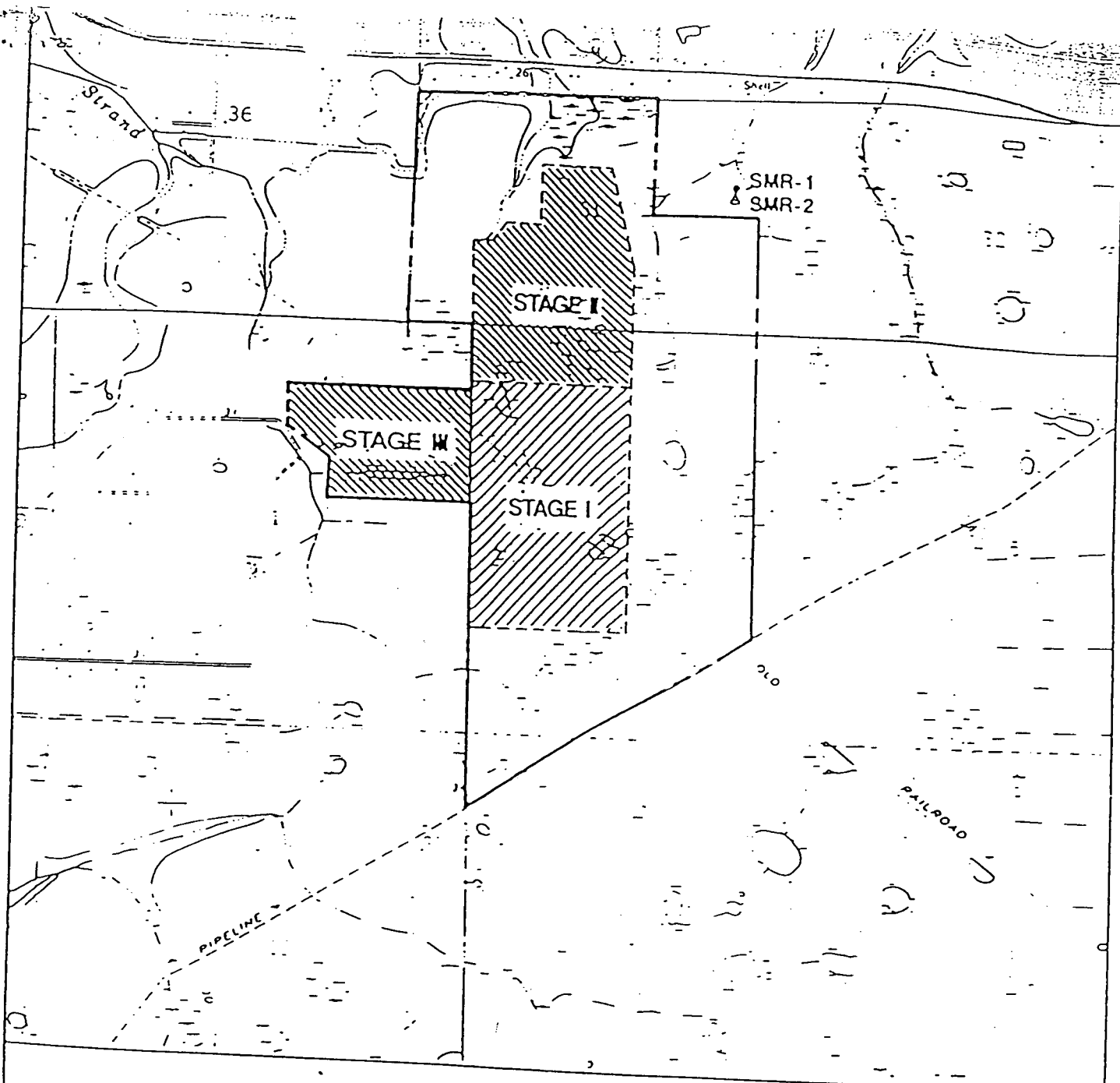
b. An air operating permit is not required unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is collocated or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity, as defined at 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill location.

c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

ATTACHMENT 1

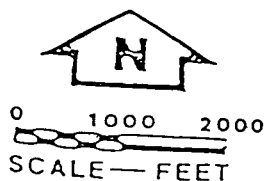
PERMITTEE: MANATEE COUNTY PUBLIC SERVICES MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY PERMIT NO.: SO41-211176

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
7.	Quarterly Annual	Waste tire report Fire Safety Survey
10.	Quarterly	Waste quantity reports compiled monthly and submitted quarterly
11.	Monthly	Leachate quantities
12.	January 1, 1995	Stage III improvements
14.	Quarterly	Gas monitoring
17.	Annually	Yard Trash Waste Report
28.	July 20, 1993	Surveyed Well Drawing
29.	Monthly	Measure piezometer and well water elevations
30.	With 1st GW Report of each yr/Annually	Documentation of approved QAP include signature page and table of contents
31.	Semi-Annually	Leachate sampled/analyzed
31.	Annually	Leachate sampled/analyzed for 40 CFR Part 258, Appendix II Parameters
35.	Semi-Annually	Wells sampled/analyzed
39.	Semi-Annually by the 15th of the month following sampling	Report of leachate and water quality analysis results, monthly groundwater elevations
41.	Every two years and prior to January 1, 1998	Evaluation of GWM Plan
42.	Annually	Closure/Long-Term Care Estimates adjusted
42.	Annually	Proof of financial assurance funding
44.	Prior to January 1, 1998 (90 days before expiration)	Apply for renewal of permit




SITE LOCATION MAP

SECTION 1, TOWNSHIP 35 S, RANGE 18E
 SECTION 6 AND 7, TOWNSHIP 35 S, RANGE 19 E
 SECTION 31, TOWNSHIP 34 S, RANGE 19 E



LEGEND

- SURFICIAL AQUIFER MONITOR WELL
- △ ARTESIAN AQUIFER MONITOR WELL

 **Ardaman & Associates, Inc.**
 Consulting Engineers in Soil Mechanics,
 Foundations, and Materials Testing

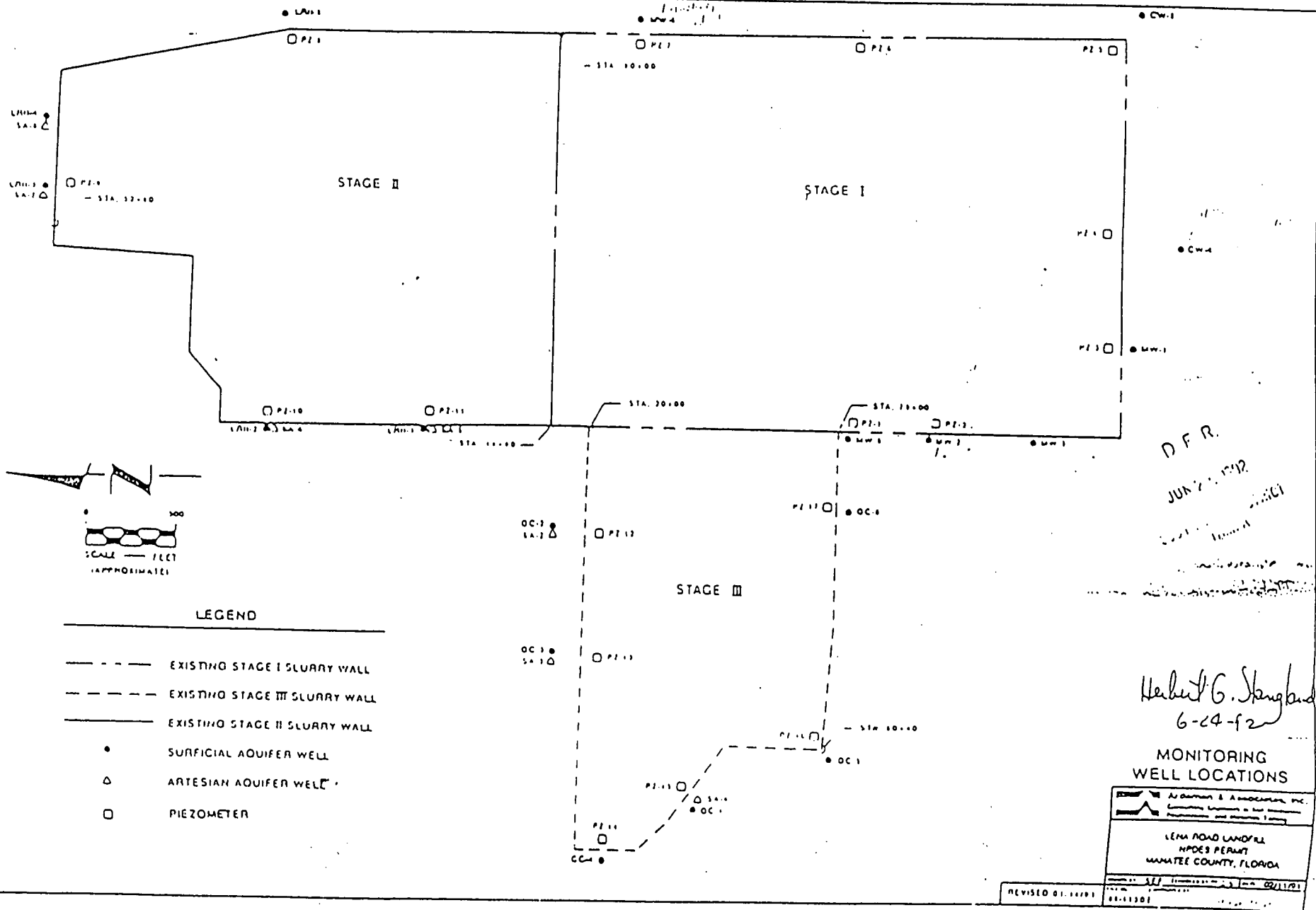
REVISED
 GROUNDWATER MONITORING PLAN
 LENA ROAD LANDFILL
 MANATEE COUNTY, FLORIDA

DATE: SEP 10 1989 BY: H.G. Standland

86-1158

SOURCE: U.S.G.S. QUAD MAP, LORRAINE FL 1973

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
 PERMIT NO.: SO4-211176



Memorandum

Florida Department of
Environmental Protection

PERMIT COVER MEMO

TO: ☒ RICK GARRITY, DDM
 ___ WILLIAM KUTASH, ENV. ADM.
 ___ OGC, ATTN: _____

FROM/THROUGH:

_____, ENVIRONMENTAL ADMINISTRATOR
_____, PROGRAM SUPERVISOR
BOB BUTERA 6/23/97, SECTION SUPERVISOR
Kim Ford 6/23/97, ENG, ENV SPEC, GEOLOGIST

DATE: 6/23/97

FILE NAME: LAKE ROAD Landfill CASE #: MAN 300416
PROGRAM: SOLID WASTE COUNTY: MANATEE

TYPE OF PERMIT ACTION: _____ ISSUE _____ DENY ☒ MODIFY
_____ TRANSFER OWNER _____ NOD _____ INTENT _____ PUBLIC NOTICE

PUBLIC NOTICE PERIOD CLOSED? _____
PETITION? _____ RELEASED BY OGC? _____

PERMIT SUMMARY: THIS PERMIT MODIFICATION
ALLOWS THE INSTALLATION OF GAS VENTS,
INCLUDES A REVISED SEQUENCE OF FILLING,
AND USE OF AN ALTERNATIVE COVER.

PROFESSIONAL RECOMMENDATION: ☒ APPROVE _____ DENY

EVALUATION SUMMARY:
I RECOMMEND THIS PERMIT MODIFICATION
BASED ON RELATED PLANS AND
CORRESPONDENCE, AND SITE INSPECTIONS
THIS MODIFICATION HELPS MAINTAIN THE
LANDFILL IN COMPLIANCE WITH DEP RULES

DAY 90/30 FOR THIS ACTION IS 6/25/97

CERTIFICATION

Application No.

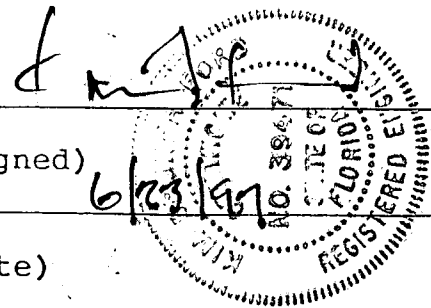
300416 (manuscript)

I HEREBY CERTIFY that the engineering features described in the above referenced application (provide / ~~XXXXXXXXXX~~) reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title ⁶⁷7. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical and structural features).

(Signed)

(Date)

(Seal)





MANATEE COUNTY GOVERNMENT

Public Works Department

RECEIVED
JUN 19 1997
D E P

June 17, 1997

Kim Ford, P.E.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Manatee County, Lena Road Sanitary Landfill
Sieve Analysis of Fine Material from Yard Waste Operation

Mr. Ford:

Per your June 4, 1997 draft permit modification, specific condition 2.b., we have performed a sieve analysis of fine material from our yard waste processing operation to determine its use as initial cover. On June 17, 1997 two samples of fine material were collected for the analysis. Each sample was weighed for total weight then screened over a $\frac{1}{2}$ inch wire mesh. The material passing through the screen was then weighed to determine a percent passage. To verify our weights the material not passing the screen was also weighed. The results of the test are as follows:

Test 1: Total sample weight 20 lbs
Sample weight not passing 4 lbs
Sample weight passing 16 lbs
Percent passing $\frac{1}{2}$ inch screen 80%

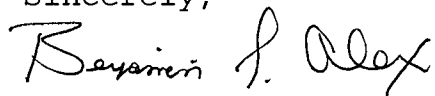
Test 2: Total sample weight 20 lbs
Sample weight not passing 3 lbs
Sample weight passing 17 lbs
Percent passing $\frac{1}{2}$ inch screen 85%

The selected material did not meet the 90% passage requirement given in the draft permit modification. As discussed, an alternative to the 90% rule would be to adjust the mixture of soil to fines based on the percent of fines passing the $\frac{1}{2}$ screen. For example, if on a subsequent analysis 90% or more of the fines pass the $\frac{1}{2}$ inch screen the 50:50 mixture would be used, per the draft permit modification. If 80% to 89% of the fines pass the $\frac{1}{2}$ inch screen a greater soil to fine mixture could be used, possibly 55%


Kim Ford, P.E.
June 17, 1997
Page 2

soil to 45% fines. Another option discussed was to use a larger screen size to determine the mix of fines to dirt. We are open to your suggestions regarding this matter. If you require further information, or need assistance regarding this issue, please contact me at (941) 748-5543.

Sincerely,

A handwritten signature in cursive script that reads "Benjamin L. Alex".

Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Len Bramble, P.E., Public Works Director
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager 
Bob Butera, P.E., FDEP

MAHILL COUNTY
GOVERNMENT
Public Works Department

TELEFAX COVER MEMO**PLEASE DELIVER THE FOLLOWING PAGE(S)**

TO: Kim Ford
FROM: Bob Alex **941/748-5543**
DATE: 6-17-97 **Ext. 5444**
SUBJECT: Yard waste Fines

Please call upon receipt _____ Please handle confidentially _____

COMMENTS:

Total number of pages including cover memo: 3

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL AS SOON AS POSSIBLE.

Bob
see spec
comp man 26.
mix 25% fines
w/ 15% soil
Bob. Passmo 1/2 screen
Kim
6/23/97

OK



MANATEE COUNTY GOVERNMENT

Public Works Department

June 17, 1997

Kim Ford, P.E.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

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Test 1: Total sample weight 20 lbs
Sample weight not passing 4 lbs
Sample weight passing 16 lbs
Percent passing $\frac{1}{2}$ inch screen 80%

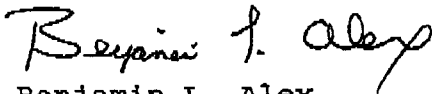
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Sample weight not passing 3 lbs
Sample weight passing 17 lbs
Percent passing $\frac{1}{2}$ inch screen 85%

The selected material did not meet the 90% passage requirement given in the draft permit modification. As discussed, an alternative to the 90% rule would be to adjust the mixture of soil to fines based on the percent of fines passing the $\frac{1}{2}$ screen. For example, if on a subsequent analysis 90% or more of the fines pass the $\frac{1}{2}$ inch screen the 50:50 mixture would be used, per the draft permit modification. If 80% to 89% of the fines pass the $\frac{1}{2}$ inch screen a greater soil to fine mixture could be used, possibly 55%

Kim Ford, P.E.
June 17, 1997
Page 2

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Sincerely,



Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Len Bramble, P.E., Public Works Director
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *LD*
Bob Butera, P.E., FDEP

MAHILL COUNTY GOVERNMENT

Public Works Department

TELEFAX COVER MEMO

PLEASE DELIVER THE FOLLOWING PAGE(S)

TO: Kim Ford
 FROM: Bob Alex 941/748-5543
 Ext. 5444
 DATE: 6-17-97
 SUBJECT: YARD WASTE FINES

Please call upon receipt _____ Please handle confidentially _____

COMMENTS:

Kim,

What is your
suggestion? I
do not want to deviate
from the 50/50 rule.

II I have no objection
to modifying the
permit to 80% w/o
a fee.

number of pages including cover memo: 3

LL PAGES. PLEASE CALL AS SOON AS POSSIBLE.

Bob
see spec
condition 2b.
mix 25% fines
w/ 75% soil
80% passing 1/2 screen
Kim
6/23/97



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

JUN 10 1997

Mr. Gus DiFonso
Manatee County Solid Waste Management
4410 66th Street West
Bradenton, FL 34210

**Re: Mercury Containing Devices To Be Removed From The
Waste Stream
Manatee County SW Management Facility (Lena Road)**

Dear Mr. DiFonso:

As you are aware there has been a number of special wastes that have been identified by the Department recently that are required to be removed from the solid waste stream and handled appropriately. Enclosed are copies of photographs (3 sheets) I received from Jack Price of the FDEP Grant's Program that I thought would assist you and your personnel (particularly spotters employed at the working face of the landfill) in identifying some devices that contain mercury. A few of these items such as a marine bilge bump float switch, unusually configured socket type fluorescent lamps, and welding units may not have been obvious to personnel performing the duties required of a spotter.

The Department thanks you in advance for continued protection of the environment. If you have any questions concerning this letter do not hesitate to contact me at 813-744-6100, Ext. 451.

Sincerely,

Robert J. Butera, P.E.
Solid Waste Manager
Southwest District

Encl.

cc: Danielle Nichols, FDEP C/E

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

~~FAXED~~

Date:

6/4/97

Number of pages including cover sheet:

6

To:

BEN ALEX

MANATEE COUNTY

Phone:

941 7485543

Fax phone:

941 7953451

CC:

From:

Kim FORD

Phone:

(813) 744-6100

x 382

Fax phone:

(813) 744-6125

REMARKS:

☐

Urgent

☐

For your review

☐

Reply ASAP

☐

Please comment

DRAFT PERMIT MOD

ONLY THOSE CONDITIONS BEING REVISED
ARE INCLUDED IN THIS FAX.

PLEASE PROVIDE SEIVE ANALYSIS ON
'FINES' FROM YARD TRASH TO
CONFIRM % PASSING 1/2".

THX Kim

KB



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

PERMITTEE:

Manatee County Public Services
Mr. Lenox Bramble
4410 66th Street West
Bradenton, FL 34210

DRAFT

**RE: Modification #300416 to existing operation permit
Permit No.: SO41-211176, Manatee County
Manatee County Solid Waste Management Facility**

Dear Mr. Bramble:

Your existing operation permit No. SO41-211176 is hereby modified as follows:

<u>SPECIFIC CONDITIONS</u>	<u>FROM</u>	<u>TO</u>	<u>TYPE OF MODIFICATION</u>
#1.	Existing	Amended	Documents and Activities
#2.	Existing	Amended	Alternative Cover
#9.	Existing	Amended	Sequence of Filling
#48.		New	Air Requirements

This letter and its attachments constitute a complete permit and replace all previous permits and permit modifications for the above referenced facility.

Sincerely,

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

RDG/kbfb
Attachments

DRAFT

SPECIFIC CONDITIONS:

1. This site includes operation of a Class I landfill, waste tire processing facility, and used oil collection center and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-25, 62-522, 62-550, 62-701, 62-710, and 62-711, Florida Administrative Code.

a. This permit is valid for operation of the Class I landfill and related facilities in accordance with the information submitted by Manatee County on March 31, April 1, May 4, May 18, May 20, May 22, June 26, October 13, November 30, December 16, 1992, and February 18, 1993; and Revised Groundwater Monitoring Plan by Ardaman & Associates dated January 11, 1990; and in accordance with all applicable requirements of Department rules. This permit allows the relocation of the waste tire processing facility in accordance with the plans dated June 28, 1995. This permit allows the yard trash mulching area improvements and operation in accordance with the letter dated June 18, 1996 and site plans by Manatee County received on July 5, 1996. This permit allows the installation of gas vents in accordance with the drawing and information by Manatee County received January 29, 1997 and information by HDR received March 28, 1997.

b. This permit includes the long-term care and maintenance of the previously closed disposal areas associated with the site. Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

Amended July 3, 1995; July 18, 1996; _____.

2. All solid waste disposed of in the Class I area shall be covered as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class I area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each working day.

b. Alternate initial cover materials not identified herein shall be approved by the Department prior to use at the facility. For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin.

- Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in six (6) inch compacted layer, may be used as initial cover within the bermed working area.

DRAFT

SPECIFIC CONDITIONS:

- The fines produced from yard trash processing, unscreened, and then mixed in the ratio of 50% unscreened fines to 50% soil, and applied in a six (6) inch compacted layer may be used as initial cover within the bermed working area. 90% of the unscreened fines shall pass through a 1/2" screen prior to mixing with soil. At least one sample shall be tested annually to verify particle size distribution.

c. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.

d. As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area. **Interceptor berms shall be maintained at the active working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

e. Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed in accordance with F.A.C. 62-701.500(7)(g) and all applicable requirements of Department rules.

f. Stormwater shall be managed as required by F.A.C. 62-701.500(10) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Sediment, as a result of erosion, and excess vegetation, which restricts the stormwater flow shall be removed within three (3) working days from all stormwater conveyances. Regrading of the stormwater conveyances to prevent ponding and the exposure of waste within the conveyances shall be performed as required. Documentation of all inspections and repairs shall be kept on file at the facility.
Amended July 21, 1994; July 18, 1996; _____.

3. The Class I disposal areas shall be operated to maintain the leachate levels below the natural water table outside the slurry wall in order to maintain an inward gradient within the landfill.

4. The spray irrigation of leachate and leachate recirculation at this facility are not allowed without prior approval by the Department.

5. Deleted July 3, 1995.

DRAFT

SPECIFIC CONDITIONS:

9. The landfill owner or operator shall have an operational plan that provides written, detailed instructions for the daily operation of the landfill. The operation plan shall be kept at or near the landfill facility and shall be accessible to landfill operators. The operation plan shall be revised and resubmitted to the Department for approval if operational procedures change. The plan shall include procedures for all the items listed in FDEP Rule 62-701.500(2). A schedule for routine maintenance of the leachate collection and removal system shall be established to ensure operation of the system. The maintenance schedule shall be a part of the facility operation plan. Operating records shall be maintained as required by FDEP Rule 62-701.500(3). Operation of Stage II and III shall not be allowed until a comprehensive sequence of filling and closure plan has been submitted to and approved by the Department and assurance has been provided that an inward gradient is continuously maintained within the landfill disposal areas. The sequence of filling shall prevent ponding or low spots and minimize erosion. The sequence of filling shall be in accordance with the March 1997 Sequential Filling Plan by HDR received March 28, 1997.

Amended July 18, 1996; _____.

10. The owner or operator of the facility shall weigh all solid waste as it is received. Landfill operators shall record, in tons per day, the amount of solid waste received and shall estimate the amount of wastes listed in FDEP Rule 62-701.500(4)(b). Waste reports shall be compiled monthly, and copies shall be submitted to the Department quarterly.

11. The landfill operator is responsible for leachate level monitoring, sampling, analysis of the landfill leachate, and for providing copies of the leachate analysis to the Department. The landfill operator shall have a prepared contingency plan to handle leachate collection, removal, and treatment problems such as interruptions of discharges to a treatment plant.

a. Leachate generation reports shall be compiled monthly and submitted to the Department as requested. Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch.

b. One hundred and eighty (180) days prior to permit expiration, the entire leachate collection and removal system, force mains and gravity pipelines, shall be video inspected and pressure tested where possible to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The results of the inspection and testing shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

Amended July 21, 1994, July 18, 1996.

SPECIFIC CONDITIONS:

DRAFT

48. Air Requirements.

a. An air construction permit is not required for the landfill unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

b. An air operating permit is not required unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is collocated or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity, as defined at 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill location.

c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

Transmit Confirmation Report

No. : 006
Receiver : 8-1-941-795-3451
Transmitter : WASTE MGT TAMPA SWDIST
Date : Jun 04 97 13:28
Time : 04'57
Mode : Norm
Pages : 06
Result : OK

John [initials]

KRM
who's this all
about? See
me.
Bel

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD.

Date 6/2/97 Subject LEONARD LE
Time 11:40 Permit No. _____
County MANATEE
M GUS DIFONSO Telephone No. _____
Representing MANATEE County
[☒] Phoned Me [☐] Was Called [☐] Scheduled Meeting [☐] Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting _____
DISCUSSED SEVERAL ITEMS TO BE RESOLVED -
① EXPLANATION FOR LEACHATE DATA 1996-1997
WHAT IS IN ERROR, WHY, WHAT'S BEEN DONE
TO CORRECT PROBLEMS
② C/D WILL CONTINUE TO BE PLACED IN CLASS I
IN SEGREGATED AREA AS AGREED UPON PREVIOUSLY
③ WHAT WILL BE DONE TO CORRECT / MAINTAIN INLAND
GRADIENT STAGE III AND WITHIN PRIOR TO RENEWAL
④ OPS PLAN - GUS D. SAID CHRIS KOTZ
MAY BE CONTRACTED TO WRITE PLAN TO COMPLY
WITH SECTION K OF APPL. FORM. I SUGGESTED
EXAMPLES OF OTHERS BE REVIEWED AND CONSIDERED
GUS AGREES AND SAID THE CURRENT OPS PLAN IS
AVAILABLE BUT MAY NOT MEET ALL OF SECTION K -

(continue on another
sheet, if necessary)

Signature [Signature]
Title _____

**W. ROUTING**

DATE: 5/10/97

☒ Allison Amram
☐ Kim Ford
☐ Steve Morgan
☒ Susan Pelz
☒ Danielle Nichols

FYE -
EXCELLENT
AUDIT!!

**COUNTY
MENT
Department****DISPOSITION AFTER REVIEW**

☐ FILE
☐ Return to Bob Butera

May 8, 1997

MAY 12 1997

Robert Butera, P.E.
Florida Department of Environmental Protection
Division of Waste Management, Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Operational Evaluation
Manatee County Solid Waste Management Facility

Dear Mr. Butera:

As requested by your Department, specific documentation for the above referenced evaluation is enclosed. The copy of the check is in payment of the services provided by Chris Kohl Training and Consulting Services.

On May 1, 1997 Public Works staff (Len Bramble, Dan Gray, Gus DiFonzo, and Ben Alex) reviewed the report with Mr. Kohl. Subsequent to that meeting, staff will continue with follow up meetings to consider the merits of each recommendation in order to move forward with issues noted and recommendations made in the report.

Public Works felt this evaluation process to be an excellent tool in our progression towards improvement of our Facility. If you have any questions or require further information, please contact me at 941/748-5543.

Sincerely,

Gus A. DiFonzo
Solid Waste Manager

GAD/gbp

Enclosures - 2

cc: Len Bramble, P.E., Public Works Director
Daniel T. Gray, Utilities Operations Manager
Benjamin Alex, Solid Waste Technical Coordinator



FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date:

5/21/97

Number of pages including cover sheet:

2

To:

DAVE PELHAM

HDR

Phone:

Fax phone:

2822440

CC:

From:

Kim Ford

Phone:

(813) 744-6100

x 382

Fax phone:

(813) 744-6125

REMARKS:

☐

Urgent

☐

For your review

☐

Reply ASAP

☐

Please comment

Air Conditions

SPECIFIC CONDITIONS:

42. Air Requirements.

DRAFT

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c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

43. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

44. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

45. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

Transmit Confirmation Report

No. : 005
Receiver : 9-282-2440
Transmitter : WASTE MGT TAMPA SWDIST
Date : May 21 97 10:23
Time : 01'11
Mode : Norm
Pages : 02
Result : OK

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD.

Date 5/21/94 Subject LENA ROAD LF
Time 9:40 Permit No. 5041-21196
County MANATEE
M BEN ALF Telephone No. (941) 9485543
Representing MANATEE COUNTY
☐ Phoned Me ☒ Was Called ☐ Scheduled Meeting ☐ Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting

DISCUSSED SEIR OF FILL, STORMWATER
AND LEACHATE CONTROL —
BEN AGREED THAT PLANS SHOW
STORMWATER LET DOWN STRUCTURES TO
DISCHARGE TO THE STORMWATER DITCH
OR POND, NOT LEACHATE POND. AND
CONVEYANCE BEAM/SWALE WILL BE BUILT
TO DIVERT STORMWATER AWAY FROM
LEACHATE POND AS RECOMMENDED BY HDR.
BEN AGREED THAT BEAMS AROUND THE
WORKING FACE WILL BE CONTINUOUS —
GENERALLY 3' HIGH EXCEPT VEHICLE
ACCESS WILL BE LOWER.

(continue on another
sheet, if necessary)

Signature [Signature]

Title _____

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD.

Date 5/21/97 Subject LEAKAGE LF
Time 9:10 Permit No. _____
County MANATEE
M TERRY THORNTON Telephone No. 2827300
Representing HDA
☐ Phoned Me ☒ Was Called ☐ Scheduled Meeting ☐ Unscheduled Meeting
Other Individuals Involved in Conversation/Meeting _____

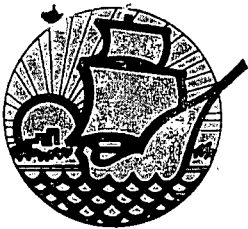
Summary of Conversation/Meeting _____

DISCUSSED STATE OF ALL PLANS —
T.T. SAID LET DOWN STRUCTURE SHOWS
NOT DISCHARGE INTO LEAKAGE PANS
AND A DRAINAGE REPORT FOR
MANATEE COUNTY LEAKAGE LF
BY HDA RECOMMENDS CLOSURE
SOME ACCESS ROADS AND
CONSIDERATION BERM / SWALES WITH SODS
TO CARRY STORMWATER AWAY
FROM LEAKAGE PANS.

(continue on another
sheet, if necessary)

Signature [Signature]

Title _____



MANATEE COUNTY GOVERNMENT

Public Works Department

May 8, 1997

D.E.P.

MAY 12 1997

SOUTHWEST DISTRICT
TAMPA

Robert Butera, P.E.
Florida Department of Environmental Protection
Division of Waste Management, Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Operational Evaluation
Manatee County Solid Waste Management Facility

Dear Mr. Butera:

As requested by your Department, specific documentation for the above referenced evaluation is enclosed. The copy of the check is in payment of the services provided by Chris Kohl Training and Consulting Services.

On May 1, 1997 Public Works staff (Len Bramble, Dan Gray, Gus DiFonzo, and Ben Alex) reviewed the report with Mr. Kohl. Subsequent to that meeting, staff will continue with follow up meetings to consider the merits of each recommendation in order to move forward with issues noted and recommendations made in the report.

Public Works felt this evaluation process to be an excellent tool in our progression towards improvement of our Facility. If you have any questions or require further information, please contact me at 941/748-5543.

Sincerely,

H. A. DiFonzo

Gus A. DiFonzo
Solid Waste Manager

GAD/gbp

Enclosures - 2

S.W. ROUTING

DATE: 5/16/97

<input checked="" type="checkbox"/>	Allison Amram	_____
<input type="checkbox"/>	Kim Ford	_____
<input type="checkbox"/>	Steve Morgan	_____
<input checked="" type="checkbox"/>	Susan Pelz	_____
<input checked="" type="checkbox"/>	Danielle Nichols	_____
<input type="checkbox"/>	_____	_____

FYI -
EXCELLENT !!
AUDIT !!

DISPOSITION AFTER REVIEW

<input type="checkbox"/>	FILE
<input type="checkbox"/>	Return to Bob Butera

cc: Len Bramble, P.E., Public Works Director
Daniel T. Gray, Utilities Operations Manager
Benjamin Alex, Solid Waste Technical Coordinator



REFERENCE INVOICE NUMBER 107807001	DESCRIPTION 54-22-97	ACCOUNT NUMBER 4304615005 53000000	AMOUNT 10,000. ✓
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RECEIVED
MAY 8 - 1997
SOLID WASTE

VEND NO. 531990 CK DATE 04-23-97 CHECK NUMBER 1219480 AMOUNT 10,000.00

DETACH BEFORE CASHING CHECK Manatee County Board of County Commissioners For inquires call (941) 749-1800 TAX EXEMPT I.D. 51-02-027548-5
This check is protected by an artificial watermark on the back, invisible fibers detectable under UV light, and chemically reactive paper



Manatee County
Board of County Commissioners
P.O. Box 1000
Bradenton, FL 34206-1000

63-063
631

NationsBank

DISBURSEMENT ACCOUNT
APPROVED IN OPEN SESSION

1219480

DATE
04-23-97

VOID AFTER 90 DAYS
AMOUNT
*****10,000.00

PAY *****TEN THOUSAND DOLLARS AND 00 CENTS*****

mailed 5/6/97

PAY TO THE ORDER OF
✓ CHRIS KOHL TRAINING AND CONSULTING SERVICES
PO BOX 421209
KISSIMMEE FL

34742

NON-NEGOTIABLE

CHAIRMAN-BOARD OF COUNTY COMMISSIONERS

ATTEST: R.B. SHORE
CLERK OF CIRCUIT COURT

ORIGINAL AMOUNT	8,450.00
CHANGE ORDER #1	1,550.00
ADJUSTED AMOUNT	10,000.00
NOT TO EXCEED 10,000.00 WITHOUT PRIOR APPROVAL AND CHANGE ORDER FROM MANATEE COUNTY PURCHASING.	
ADDITIONAL REQUISITION NOS. -140746	
PURCHASED -	10,000.00
TOTAL TAX -	0.00

RECEIVED
APR 18 1997
ACCOUNTING DEPT
ENTERED APR 22 1997

SPECIAL INSTRUCTIONS

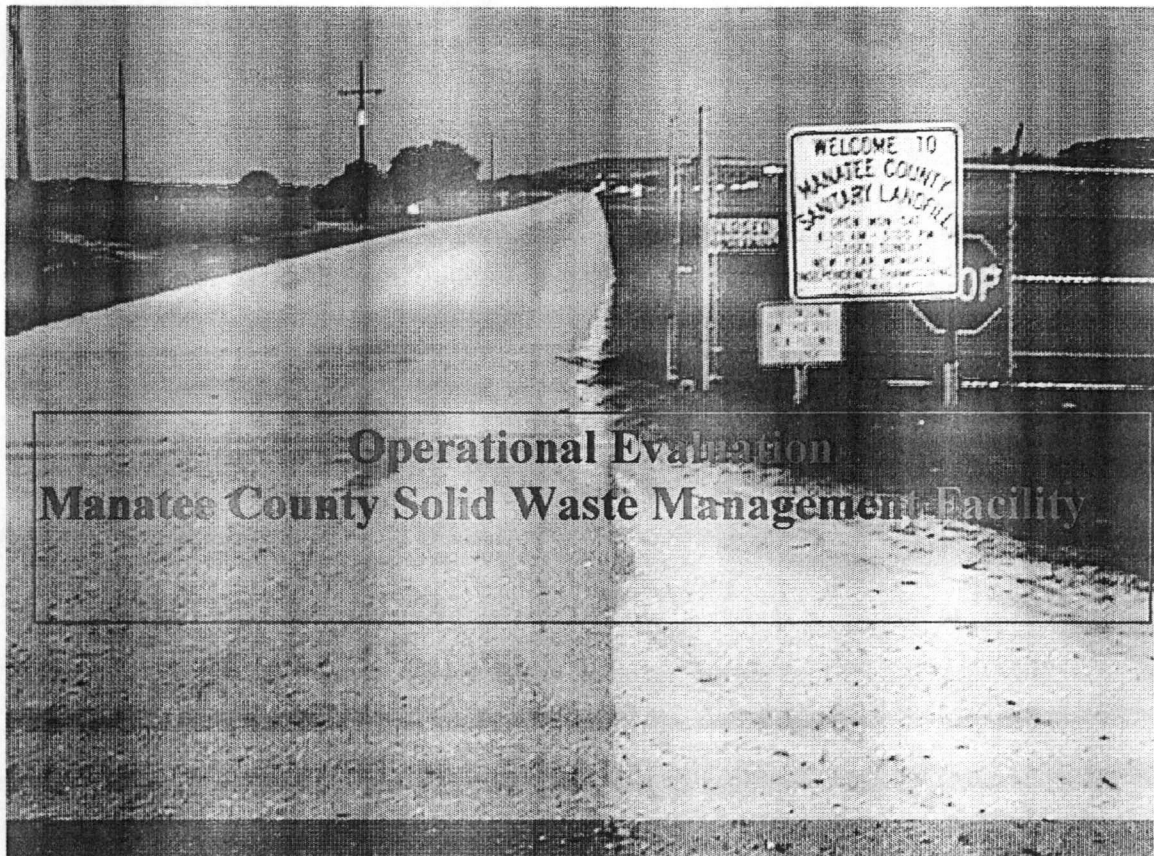
Complete 4-18-97
Pay 10000.00 TOTAL

10,000.00

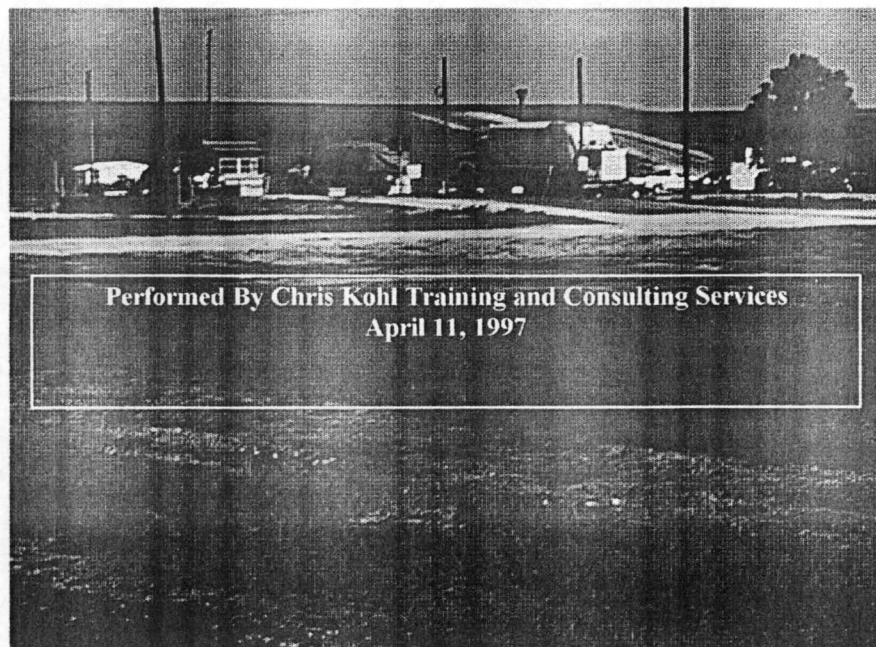
OSHA APPROVAL REQUIRED ON ALL APPLICABLE ITEMS.

QTY ORD	QTY REC'D	QTY B/O	PACKING SLIP #	DATE REC'D	REC'D BY	PAYMENT AUTHORIZED BY
10,000.00	10,000.00	-0-	001	4-17-97	Ben Alay	4/18/97

R.P. Rucke
R.C. (RUB) CUTHBERT, C.I.
PURCHASING DIVISION MANAGER



**Operational Evaluation
Manatee County Solid Waste Management Facility**



**Performed By Chris Kohl Training and Consulting Services
April 11, 1997**

D.E.P.
MAY 12 1997
SOUTH FLORIDA DISTRICT
TAMPA

Operational Evaluation Manatee County Solid Waste Management Facility

April 11, 1997

Performed by Chris Kohl Training and Consulting Services

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Executive Summary

An evaluation of the operations at the Manatee County Solid Waste Management Facility was performed by Chris Kohl Training and Consulting Services. The evaluation focused primarily on regulatory and permit compliance issues associated with the operation of the landfill and associated facilities. Detailed descriptions of existing facilities and site features was included in the evaluation in conformance with the scope of work included in Manatee County RFQ #97-1438FL.

The overall condition of the site was acceptable to both the evaluator and the State regulatory agency (FDEP) as evidenced by the inspection report completed on 2/25/97 which cited no major non-compliance issues. Operations personnel appeared to be genuinely concerned with improving site conditions and providing a high level of service. Supervision seemed knowledgeable and interested in doing a good job, although it was noted that they might benefit from a higher level of participation in one of the solid waste professional organizations (SWANA, etc.). More detailed and formal monitoring and evaluation of site conditions and operational practices was recommended.

Detailed review of operational practices during the operational evaluation revealed the site to be in substantial compliance with the requirements of Chapter 62-701, F.A.C., although several conditions were described as being in partial compliance, and on instance of direct non-compliance was noted. The one area of strict non-compliance involved the co-disposal of C&D wastes with Class I refuse at both the main Class I disposal area and the small vehicle dumping area.

The areas of partial compliance which present issues of operational concern are outlined below:

- Spotter functions are not being performed by personnel on foot at each dumping location. Personnel assigned to operate heavy equipment do not have the same opportunity to inspect loads for prohibited materials as personnel on foot.
- The required written operations plan was not in final form and was not available to site staff.
- All record keeping requirements were not being fully complied with.
- The random load inspection program was observed to be perfunctory and less effective than the Rule requires. The procedures employed do not accomplish "detailed" inspection of waste loads.
- Special waste acceptance and hazardous waste response procedures were informal and unwritten, leaving no usable paper trail.
- Working face slopes exceeded 3:1 at times during the evaluation.
- The working face appeared to be bigger than necessary during the evaluation period.
- Daily cover amounts were inadequate, using both dirt and the alternative cover material (formula 480)
- Daily cover was not being applied to the small vehicle dumping area.
- There was no written contract for leachate management services, and no contingency plan for disruption of leachate management services.
- The stormwater system appeared to be in need of required maintenance.
- Insufficient equipment was on site to provide excavating and road grading capabilities.
- Written asbestos disposal procedures were not available, asbestos load inspections were not being reconciled with manifests, and additional signage was required for the asbestos disposal area.
- The compaction levels and surface uniformity at the active face of the main Class I landfill area appeared to leave much room for improvement.
- The level of overall sight maintenance, aside from routine disposal activities, appeared to be less intensive than good management practices would dictate.
- Staffing levels and/or scheduling appeared to be inadequate to meet all the demands of site maintenance.

- Monitoring wells were unlocked and accessible to anyone entering the site.
- Laboratory analytical data was submitted without quality control information, and was transferred directly to FDEP forms for submittal, without consistency checks. Exceedances were not responded to.
- Lack of a usable stormwater discharge creates problems with dealing with severe weather.

These issues are dealt with in greater detail in the full document.

The major challenges facing the site were identified as providing a continuous and adequate level of maintenance for the stormwater system, the leachate system, the gas system, and other site area not directly related to daily disposal activities, and providing a long term source of dirt for cover and site development. Recommendations were made for improving the compliance levels, efficiency, and effectiveness of operations were made.

Additional major recommendations included evaluation of staffing levels and schedules, evaluation of the need to continue operation of a second active face for the small vehicle dumping area, development of a detailed landfill operations plan, formalization of special waste acceptance and hazardous response procedures, restructuring the random load inspection program, and obtaining access to excavation and grading equipment for use on site.

While conditions at the site were relatively good at the time of the evaluation, it was easy to see how the combination of staffing issues, equipment availability, maintenance issues, and a string of bad weather could seriously affect the site's ability to maintain status quo. Basically, operations at the site were characterized as adequate, but additional attention to formal written procedures, planned maintenance, and more intensive and routine site monitoring were recommended to raise the operational effectiveness compliance status to a higher level.

Introduction

In response to a need to assess the operational effectiveness and regulatory compliance of the Manatee County Solid Waste Management Facility, the County has engaged Chris Kohl Training and Consulting Services to perform an operational evaluation of the facility based on the scope of services contained in County RFQ#97-1438FL, attached as Figure 1.

The evaluation is intended to evaluate daily activities at the site through a series of site visits and interviews with County staff and representatives of the Florida Department of Environmental Protection, as well as to evaluate operational factors including staffing, equipment, permit compliance, and regulatory compliance. Details of site activities, layout, and functions are also included in the scope. Finally, recommendations for enhancement of operational effectiveness are included in this evaluation.

This evaluation deals specifically with operational aspects of the landfill facility, and is not intended to be an overall evaluation of the entire solid waste management system in the County. Specific analysis of the County's recycling programs, household hazardous waste (HHW) program, refuse collection system, rate structure, or financial responsibility mechanisms are not included in this evaluation process.

This report is divided into seven main sections:

- I. Description of Facility Location and Layout
- II. Description of Existing Staffing and Assignments
- III. Description of Equipment Available on Site
- IV. Description of Daily Operational Practices and Site Conditions Observed During Evaluation Inspections
- V. Compliance with Operational Requirements of Chapter 62-701, F.A.C.
- VI. Permit Compliance
- VII. Recommendations for Enhancement of Operational Effectiveness and Level of Compliance

All aerial photographs, layout diagrams, and maps were provided by the County, with facility locations ground verified during the site visits. Additional information was acquired through interviews with County and FDEP staff, review of files and other documentation available at the Lena Road site, review of permit documents located at the SW District of FDEP, and regulatory requirements contained in Chapters 62-701, 62-703, 62-711, and 62-737, F.A.C. (among others).

Site inspections were conducted on March 3rd, 5th, and 8th, 1997, with the visits on the 3rd and 5th occurring from 7 AM to closing at 6 PM, and the visit on the 8th extending from 7 AM to 4 PM.

I: Description of Facility Location and Layout

The Manatee County Solid Waste Management Facility (formerly known as the Lena Road Landfill), is located in the southwestern portion of Manatee County, approximately 1 miles east of the intersection of State Road 64 and Interstate 75 (see Figure 2). The solid waste disposal site occupies approximately 330 acres of a larger (1250 acre) site owned by Manatee County. The solid waste management facility, surrounded by a slurry wall, includes active disposal areas (small vehicle disposal area and Class I disposal areas), future disposal areas, closed landfill areas, roadways, a scale house, administrative offices, a household hazardous waste storage facility, a waste tire storage area, a yard waste processing area, an equipment maintenance area, a fuel island, a scrap metal storage area, a freon containing device storage area, stormwater ditches, a stormwater collection pond, a leachate holding pond, and four leachate pump stations. The relative locations of these site features are shown in Figure 3.

SCOPE OF SERVICES

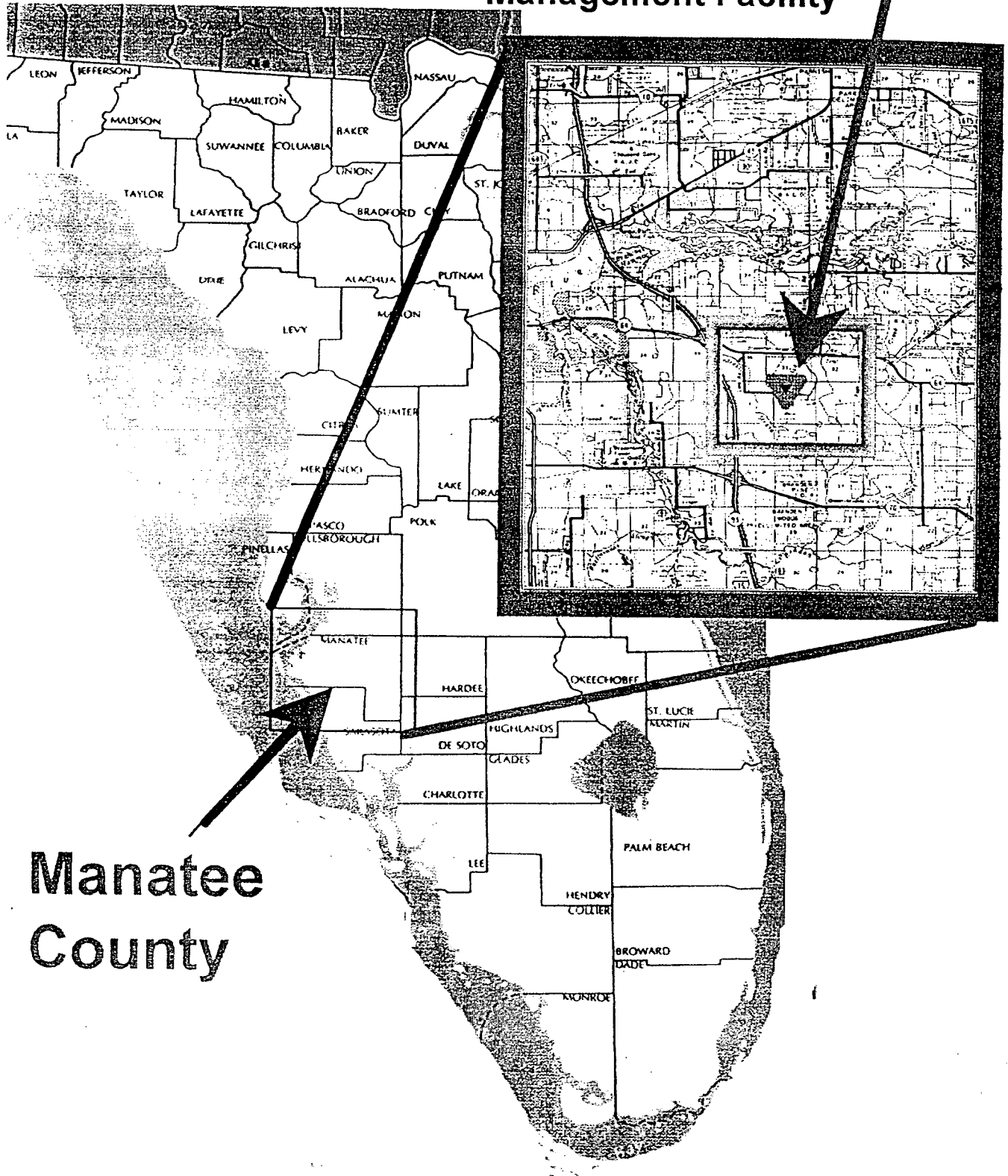
FOR

LANDFILL OPERATIONS AUDIT

- A. Manatee County has the need for an operational audit to be performed at the Lena Road Landfill located in Manatee County, 3333 Lena Road, Bradenton, FL 34202. The audit will address operational issues only.
- B. The audit to be performed will address the following items and shall be included in the final audit report that will be submitted to the County. See Period of Performance for schedule.
 - 1. Manatee County landfill staff and solid waste consultant will meet initially with the selected auditing firm to discuss the landfill operation, identify available information such as records and maps that may be made available and used in the performance of the audit.
 - 2. A series of three (3) full day site visits will be conducted at the landfill to evaluate the landfill's daily operations. These visits will be for the entire operational period of the landfill, opening to closing and will include the observation of all major activities of the landfill.
 - 3. A review of current staffing as it relates to the effectiveness of the landfill operation will be made and staffing recommendations will also be included in the audit.
 - 4. The audit will include the layout and size of the landfill facility as it currently stands and will address any identified expansion plan.
 - 5. Detail the stormwater system, leachate system, yard waste, white goods, tire storage, household hazardous waste area, maintenance area, administrative facilities, active and closed landfill areas, wetland areas and any other area of importance in the operation of the landfill.
 - 6. Provide in the audit a description of all equipment used in the landfill operation and identify whether it is owned or leased.

7. The audit will include an evaluation of the level of compliance as it relates to reporting, record keeping, operational requirements, results of FDEP inspections, discussions with FDEP staff, critique of daily operation practices and recommendations for operational improvements.
8. Perform a review of the current Landfill Operating Plan as it relates to the current level of regulatory compliance observed and recommend any improvements to the operation plan.
9. Address compliance with requirements of 62-701, FAC, as it relates to landfill operations.
10. Include in the audit a summary of existing permits, with expiration and renewal application dates, necessary to assist the landfill in resubmission activities.
11. Interviews with FDEP SW/District staff will also be conducted in regard to County compliance as it relates to the landfill.
12. Any other information that the auditor deems necessary or relevant to the County in its operation of the landfill.

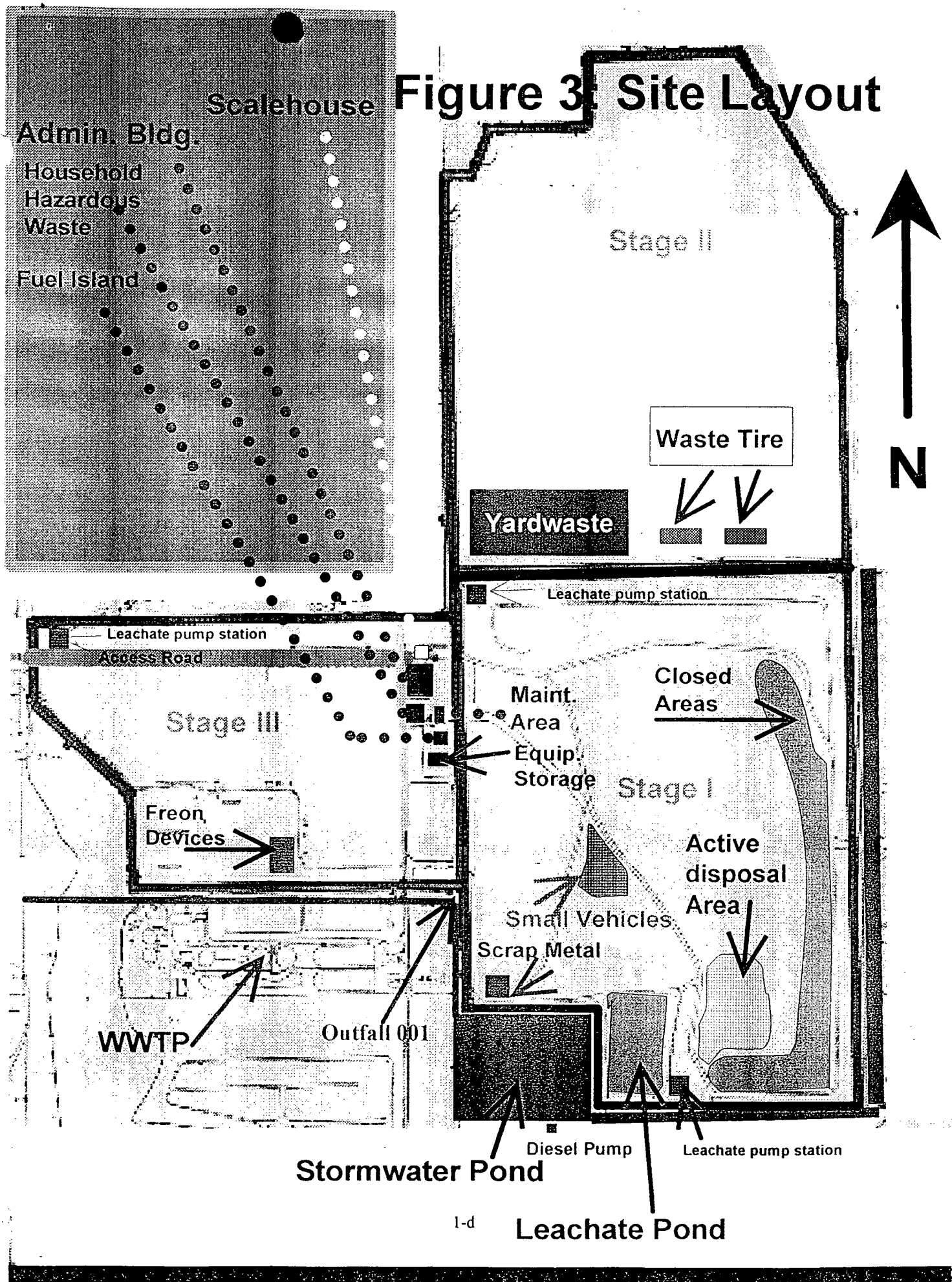
Manatee County Solid Waste Management Facility



**Manatee
County**

Figure 2: Site Location

Figure 3: Site Layout



The entire site is surrounded by ditches and fences to control access. The entrance road is intersected by a lockable gate to prevent unauthorized entry after normal operating hours.

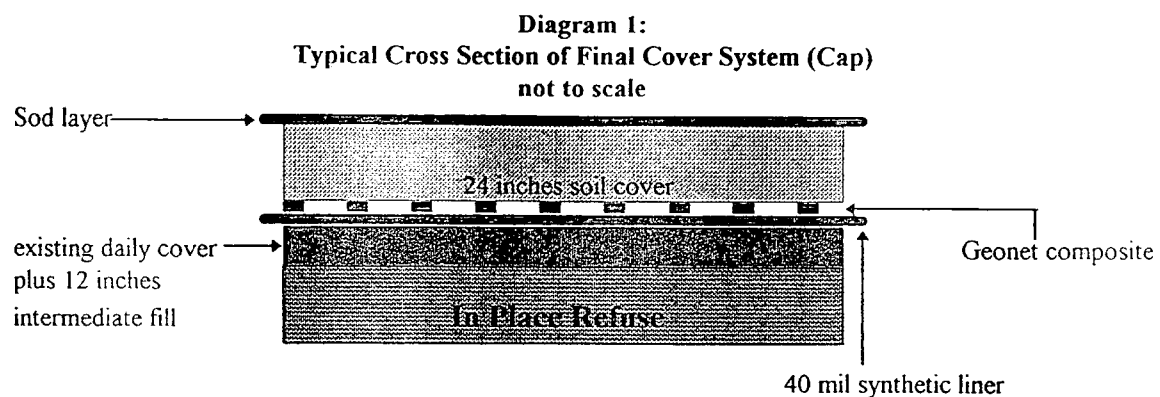
The site is divided into three stages for development designation purposes. These three stages are shown in Figure 3. All disposal activities at the site to date have occurred in Stage I and III, with all current disposal activities occurring in Stage I. Stage III has received waste deliveries historically, but retains significant capacity for future disposal activities. Stage II has never received any waste deliveries and is being reserved for future site expansion. Each stage is surrounded by a separate **slurry wall** which hydrologically segregates it from the other two stages, dividing the site into three distinct containment areas.

These slurry walls are keyed into a naturally occurring and contiguous clay layer underlying the entire site, and serve to provide leachate containment at the site. Leachate is extracted using a series of perimeter extraction wells. Each of these distinct containment areas is equipped with separate leachate pump stations used to convey collected leachate to the leachate containment pond located in Stage I. At the time of the evaluation inspections, leachate from Stages I and III was being pumped to the leachate pond located in Stage I and shown in Figure 3. Collected leachate is temporarily stored in the pond and eventually discharged to an adjacent County operated wastewater treatment facility. Clean outs for the leachate collection system are installed at approximately 300 foot intervals.

All of the existing landfill facilities currently lie within the slurry wall perimeter. All fill activities to date, including all existing facilities, are located in Stages I and III.

A paved access road conveys traffic through the approximate center of the site from the northwestern edge of the Stage III area to the scale house and administrative facilities, and continues eastward into the active disposal area in Stage I. Toward the center of the northern portion of Stage I, the paved road splits, providing paved access part of the way into the active Class I disposal area to the south and part of the way to the waste tire and yard waste areas in Stage II, to the north. Temporary access roads constructed from a rubble base with soil topping provide the final access into all disposal areas.

The east portion of Stage I is closed in accordance with FDEP regulations (**Closed Landfill Areas**). Closure consists of a 40 mil high density polyethylene cap placed over 18 inches of soil cover (6 inches of existing daily cover, plus 12 additional inches of intermediate cover), and topped with 24 inches of soil and sod up to an elevation of approximately 95 feet msl (see diagram 1, below).



Passive gas collection wells are placed at 200 foot horizontal intervals throughout the closed portion of the landfill. Rows of wells are alternately staggered such that wells in adjacent rows are approximately 150 feet apart.

The gas collection wells are constructed from 6" diameter PVC with goose necks at the above ground termination to prevent debris and rainfall from falling down the well pipes. All existing wells vent passively into the atmosphere.

Stormwater letdown structures in the closed area are lined with a flexible asphaltic material ("liquid boot") and placed at 300 foot intervals along the closed side slopes. These structures convey stormwater across terrace roads and the surface of the perimeter shell rock road, allowing it to discharge into the perimeter stormwater ditch system. This portion of the stormwater ditch system, located on east and south sides of the closed area, conveys captured stormwater, by gravity flow, into the **Stormwater Pond** shown in figure 3.

The side slopes on the closed portion are constructed with terraces approximately 15 feet wide, placed at 20 foot elevation intervals. Let down structures proceed in a straight line fashion, interrupted only by the change in slope associated with the terraces. All stormwater is conveyed off the side slopes by surface flow until intercepted by the perimeter stormwater ditch system.

The side slopes of the stormwater ditches are vegetated, and culverts are placed at several locations to provide crossing locations for vehicles and equipment.

The **Leachate and Stormwater Ponds** are located in the southwest portion of Stage I, with the stormwater pond being the larger of the two and lying directly west of the leachate pond (see diagram 3). The two ponds are separated by the slurry wall which supports a road used for maintenance and access between the ponds. Each pond is equipped with staff gauges used to measure the surface elevation of the contained water and leachate.

The stormwater pond receives collected run off from the eastern and northern portions of Stage I by gravity flow. A small portion of the stormwater ditch system east of the administration building functions as an infiltration system and does not discharge into the stormwater pond. The small amount of stormwater generated in Stages II and III is collected in the perimeter ditches (outside the slurry wall). Excess stormwater is permitted (NPDES) to be discharged off site through outfall 001, located northwest of the pond in the perimeter ditch system. Maintenance of the required hydraulic gradient between the leachate and stormwater ponds is accomplished by pumping excess stormwater to the adjacent waste water treatment plant using a portable diesel powered pump. 1

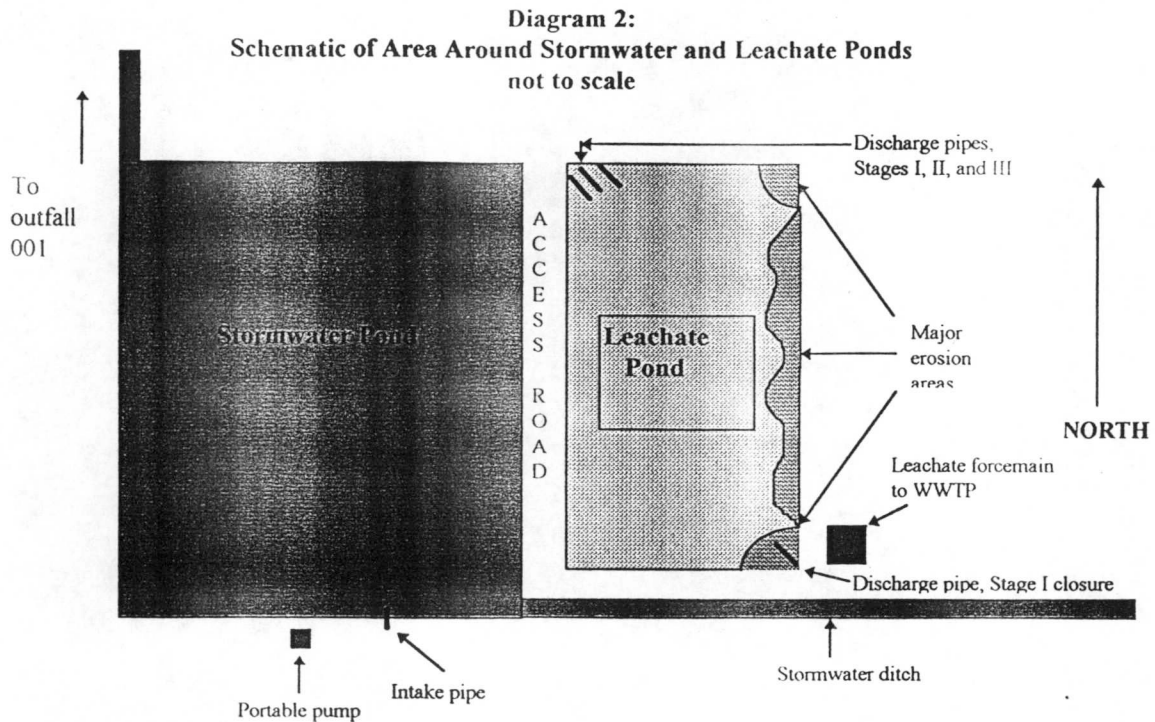
The leachate pond receives leachate pumped from lift stations located in stages I and III. Since Stage III has not received any refuse, its lift station does not currently discharge to the pond. The lift stations are located at the northwest corner of Stage III, the west-central portion of Stage II, and the northwest corner of Stage I. A separate lift station located near the south east corner of the leachate pond pumps leachate from the closed portion of Stage I. Accumulated leachate is discharged to the adjacent waste water treatment plant via a forcemain.

An area for storage of recyclable metal objects not containing freon (**Scrap Metal Storage Area**) is located northwest of the stormwater pond. This small dirt pad is used to store scrap metal items extracted from the active landfill areas prior to shipment off site for recycling.

The **Active Class I Disposal Area** is located northeast of the leachate pond, comprising a series of additional lifts above the closure elevation of approximately 95 feet msl. The separate disposal area which serves small vehicle (**Small Vehicle Disposal Area**) deliveries is located directly north of the leachate pond on a lower mound west of the main Class I area. All waste delivered to the site for disposal is directed to either the Class I disposal area or the small vehicle area.

The **Waste Tire Storage Area** is located in the southeastern section of Stage II, adjacent to the yard waste mulch stockpile. This facility consists of two separate bermed containment areas intended to provide a maximum storage area for 560 tons of used tires (approximately 56,000 passenger car tires). Each area is

approximately 50 feet wide and 200 feet long surrounded by earthen berms about two feet high. The surrounding berms are each breached at one point by the driveways leading into the sites.



The **Yard Waste Processing Area** is located in Stage II, west of the waste tire storage area, and includes stockpiles of mulched and screened yard waste, a mixing area where yard waste is mixed with soil for use as daily cover, and a processing area where yard waste is delivered, shredded, screened, and loaded into trucks for final off site use. All processing is accomplished by a contractor retained by the County to provide this service.

The **Scale House** is located on the paved access road leading into the landfill site, east of the main entrance gate, intercepting all waste hauling traffic entering the site. Two scale platforms are available to weigh incoming and exiting vehicles, utilizing a computer based system to track weights, disposal charges, and transaction and vehicle information.

The **Administrative Offices**, including office space, rest rooms, an employee locker room, and an employee lunch room, is located directly south of the scale house. A driveway splits off of the main road, allowing vehicles entering the administrative offices to avoid having to cross the scales before entering the site.

A small **Equipment Maintenance Area** and a **Fuel Island** are located south of the administrative offices, providing service and fueling capabilities for equipment and vehicles used at the site. The entrance ways and yard surrounding the fuel island and maintenance shop are unpaved.

The **Household Hazardous Waste (HHW) Storage Facility**, located immediately west of the fuel island, consists of a fenced compound with a paved driveway providing vehicle access. Household hazardous waste is stored either in modular, self contained hazardous material storage sheds, or in a concrete containment area with collection sump covered by a metal shed roof. A waste oil tank with containment wall is also located under the shed roof. Dumpsters are placed on site to hold non-hazardous solid waste resulting from

material bulking and sorting activities. Storage capabilities include capacity for fluorescent light tubes, automotive batteries, waste oil, flammable liquids, corrosives, poisons, mixed hazardous waste ("Dangerous" placard), and miscellaneous items such as paint cans, L.P. gas cylinders, and gasoline tanks.

A separate area for storage and processing of freon containing devices (**Freon Containing Devices Storage and Processing Area**) is located southwest of the HHW storage facility, in the south-central portion of Stage III. This unpaved area provides storage capacity for refrigerators, freezers, air conditioners, and other freon containing devices which must be purged of freon prior to shipment off site for recycling. Lawnmowers, automotive parts, and other scrap items potentially containing contaminants which must be removed prior to recycling are also stored in this area.

The ground water monitoring system consists of 27 monitoring wells placed around the site, including four background wells (1 deep, 3 surficial), 7 detection/compliance wells in the deep aquifer, 15 detection/compliance wells in the surficial aquifer, and 1 compliance well in the surficial aquifer. In addition, 17 piezometers are in place to measure ground water elevations inside and outside the slurry wall system.

Eighteen gas monitoring wells, with depths ranging from 2.5 feet deep to 4.5 feet deep, are installed around the site to monitor gas migration hazards.

Surface water monitoring is conducted in response to discharges from 5 NPDES stormwater outfalls, equipped with discharge weirs.

II: Description of Existing Staffing and Assignments

Existing staffing and typical work assignments at the Manatee County Solid Waste Management Facility are summarized in Table 1, below, and consists of personnel directly supervised by Landfill Operations staff, personnel assigned to landfill duty but supervised by another section within the County, personnel obtained from private temporary help agencies, and personnel assigned to perform community service or on prisoner work crews.

Permanent staff directly responsible for landfill operations, not including recycling, HHW, or random load inspections, include two management positions, one line level supervisor, two "lead" operators, 11 equipment operators, and 2 landfill attendants. These permanent staff members are assisted by temporary help, community service personnel, and prisoner work crews as needed or available.

The major portion of the day to day landfill activities are borne by the 16 existing positions defined as Landfill Operations Supervisor, Chief Equipment Operator, Equipment Operator I and III, and Landfill Attendant I and II. One full time Office Assistant IV supports administrative activities. Additional administrative support is provided by the Recycling Service Technician, Solid Waste Program Specialist, and Office Assistant III who fill in for the mail run two days per week.

Two staff members are assigned to fuel and service equipment on a daily basis, and arrives at 5:30 AM each day to accomplish this task.

In addition, the Temporary Help is retained primarily for litter collection activities, with a crew of three on site in a typical week.

Prisoner work crews are assigned to litter collection duties, mainly along the access roads leading into the landfill, when available, and persons assigned to perform community service through the court system are typically assigned to perform janitorial work and equipment washing.

Staffing levels decrease significantly on Saturdays, in response to daily tonnage decreases, and peak on Wednesday, Thursday and Friday in response to increases in tonnage.

Table 1: Current Staffing

Job Title	Primary Work Assignment	Basic Work Week	Number of Staff Members
Solid Waste Manager	Management of Solid Waste Programs	8hrs./day 5days/wk.	1
Solid Waste Technical Coordinator	Management of Landfill Operations	8hrs./day 5days/wk.	1
Landfill Operations Supervisor	Line Supervision of Landfill Operations	10 hrs./day 4 days/wk.	1
Chief Equipment Operator	Operation of Landfill Heavy Equipment, Direct other Equipment Operators and Landfill Attendants	10 hrs./day 4 days/wk.	2
Equipment Operator I	Operation of Mowers, Light Equipment and Landfill Heavy Equipment	8hrs./day 5days/wk.	1
Equipment Operator III	Operation of Landfill Heavy Equipment, Dozers, Compactors, Scraper Pans, Etc.	10 hrs./day 4 days/wk.	10
Landfill Attendant I	Spotting, Extracting Non-compliant or Recyclable Wastes (i.e. tires, white goods, etc.), Litter Collection	8hrs./day 5days/wk.	1
Landfill Attendant II	Fueling and Servicing Equipment, Spotting, Extracting Non-compliant or Recyclable Wastes (i.e. tires, white goods, etc.), Litter Collection	8hrs./day 5days/wk.	1
Litter Enforcement* Officer	Random Load Inspections, Litter Enforcement	8hrs./day 5days/wk.	2
Heavy Equipment Mechanic*	Maintenance and Servicing Heavy Equipment	8hrs./day 5days/wk.	1
Office Assistant III	Clerical Assistance	8hrs./day 5days/wk.	1
Office Assistant IV	Clerical Assistance	8hrs./day 5days/wk.	1
Scale House Supervisor*	Line Supervision of Scale House Personnel, Operation of Scale System	8hrs./day 5days/wk.	1
Scale Attendants*	Operation of Scale System	8hrs./day 5days/wk.	2
Solid Waste Program Specialist	Recycling Programs	8hrs./day 5days/wk.	1
Recycling Service Technician	Recycling Programs	8hrs./day 5days/wk.	1
Recycling Coordinator	Recycling Programs	8hrs./day 5days/wk.	1
Temporary Help	Litter Collection	as needed weekly	usually 3
Community Service	General Labor, Litter Collection	as available	usually 1
Prisoner Road Crew	Litter Collection	as available	as available

*these personnel work for another section, not under landfill supervision

Table 1a: Landfill Operations Staffing by Day of the Week

Job Title	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Solid Waste Manager	1	1	1	1	1	0
Solid Waste Technical Coordinator	1	1	1	1	1	0
Landfill Operations Supervisor	0	0	1	1	1	1
Chief Equipment Operator	1	2	2	2	1	0
Equipment Operator I	1	1	1	1	1	0
Equipment Operator III	6	7	6	6	7	5
Landfill Attendant I	1	1	1	1	1	0
Landfill Attendant II	1	1	1	1	1	0
Litter Enforcement Officer*	2	2	2	2	2	0
Heavy Equipment Mechanic	1	1	1	1	1	0
Office Assistant III	1	0	1	0	1	0
Office Assistant IV	1	1	1	1	1	0
Recycling Service Tech.**	0	1	0	0	0	0
S.W. Program Specialist**	0	0	0	1	0	0
Total, Landfill Ops. Staff	17	19	19	19	19	6
Temporary Help	as needed	as needed	as needed	as needed	as needed	as needed
Community Service	as available	as available	as available	as available	as available	as available
Prisoner Road Crew	as available	as available	as available	as available	as available	as available

* personnel assigned to landfill, but actually work for Code Enforcement

** fill in for mail run, other duties during balance of week

III: Description of Equipment Available on Site

The equipment available on the site is divided into three general categories, as summarized in Tables 2 through 5, below.

The heavy equipment spread consists of landfill compactors, track type tractors (landfill dozers), Wheel tractor-scrapers (elevating scraper pans), a Front end loader, and a 5,000 gallon water tanker.

The landfill dozers are of elevated final drive design and equipped with low ground pressure (LGP) tracks, along with CAT straight blades with trash guards. Compactors are equipped with CAT wheels with fixed, welded on tips (CAT Plus Tips) along with CAT straight blades with trash guards.

Wheel tractor-scrapers are elevating or self loading type, with a nominal struck capacity of 23 cubic yards.

The water tanker is a 5,000 gallon pan type tanker equipped with a front and rear mounted spray bars for dust suppression and a rear mounted fire hose for emergency fire suppression purposes. This tanker is filled using a separate diesel powered pump with overhead standpipe.

All heavy equipment is equipped with ROPS cabs which are fully enclosed and air conditioned and heated.

The balance of the equipment available on site consists of light trucks, tractor-mowers, and miscellaneous equipment such as pumps, a generator, a compressor and a welder. Tables 3 and 4 summarize the additional equipment available on site.

Tractor mowers are agricultural type tractors with PTO driven mower beds towed behind them.

During the three days on which site visits were conducted for this evaluation, the water tanker was unavailable for use on two of the days, and two of the wheel tractor-scrapers were not used. The service truck was unavailable during the time of the site visits.

Table 5 summarizes the status of the landfill heavy equipment acquired via total cost agreements which specify guaranteed total maintenance costs, limit down time associated with parts availability and dealer repairs, and allow the County to choose between retaining ownership of the equipment at the termination of the agreement or selling the equipment back to the vendor at a guaranteed price bid as part of the original agreement. No equipment is acquired via capital leases at the present time.

Rental equipment is acquired on an as needed basis.

Table 2: Heavy Equipment Available on Site

Equipment Description	Designation Number	Make and Model	Primary Uses	Equipment Engine Hours (as of Jan. 1997)
Landfill Compactor	30173	1992 CAT 826C	Small Vehicle Area	11,110
Landfill Compactor	34285	1996 CAT 826E	Class I Disposal	1,585
Landfill Compactor	35049	1996 CAT 826E	Class I Disposal	301
Track Type Tractors	31518	1994 CAT D7H	Small Vehicle Area	4,663
Track Type Tractors	31519	1994 CAT D7H	Mixing Mulch and Soil for Cover, Utility	4,595
Track Type Tractors	34504	1996 CAT D7HLGP	Class I Disposal	885
Track Type Tractors	34516	1996 CAT D7HLGP	Class I Disposal	941
Wheel Tractor-Scraper	28193	1989 CAT 623E	Back up	8,790
Wheel Tractor-Scraper	34746	1996 CAT 623F	Hauling Cover, Erosion Repairs	387
Wheel Tractor-Scraper	34747	1996 CAT 623F	Hauling Cover, Erosion Repairs	144
Front End Loader (integrated tool carrier)	30268	1992 Michigan	Tire, White Goods Extraction	6,005
Water Tanker	29542	1990 CAT 5,000 Gal. Pan Tanker	Dust Control, Fire Suppression	1,585

Table 3: Miscellaneous Equipment Available on Site

Equipment Description	Designation Number	Make and Model	Primary Uses	Equipment Engine Hours (as of Jan. 1997)
Landfill Generator	LF-1	1988	Emergency Power	157
8" Pump	19261	1983 MAC	Tanker Fill Station	2809
Welder	19753	1984 Miller PT	Equipment Repairs	NA
4" Pump	25304	1988 MAC	Pumping Stormwater	7450
Air Compressor	NA	1988	Maintenance Shop	NA
Tractor/Mower	29079	Ford	Mowing	2690
Tractor/Mower	33067	1995 John Deere	Mowing	899

Table 4: Passenger Trucks and Utility Vehicles Available on Site

Equipment Description	Designation Number	Make and Model	Primary Uses	Equipment Mileage (as of Jan. 1997)
Service Truck	16049	1981 4X4	Equipment Service	69,782
PU Truck	30000	1992 Ford Super Duty	Mechanic	12,930
PU Truck	30174	1992 Ford F150	Staff	35,000
PU Truck	31494	1994 Ford F350	Staff	9,516
Passenger Truck	32424	1995 Ford Bronco	Utility Operations Manager	14,506
PU Truck	32710	1995 Ford F150	Chief Equipment Operator	8,792
PU Truck	33935	1996 Ford F150	Landfill Operations Supervisor	5,941

Table 5: Equipment Leases

Equipment Description	Designation Number	Make and Model	Capital Lease? * (yes/no)
Landfill Compactor	34285	1996 CAT 826E	no
Landfill Compactor	35049	1996 CAT 826E	no
Track Type Tractors	31518	1994 CAT D7H	no
Track Type Tractors	31519	1994 CAT D7H	no
Track Type Tractors	34504	1996 CAT D7HLGP	no
Track Type Tractors	34516	1996 CAT D7HLGP	no
Wheel Tractor-Scraper	34746	1996 CAT 623F	no
Wheel Tractor-Scraper	34747	1996 CAT 623F	no

*County may elect to retain ownership equipment at termination of the total cost purchase agreement, or to sell equipment back to vendor for guaranteed buy back amount

IV: Description of Daily Operational Practices and Site Conditions Observed During Evaluation Inspections

Inspections of landfill operational procedures and conditions were conducted on March 3rd, 5th and 8th which included observation of daily start up procedures, operating procedures throughout the operating days, and site closing and application of initial (daily) cover.

Overall site operations appeared to be on a consistent level with many other landfills in the State, and the staff appeared to be interested in providing a high level of service to the disposal community. Staff members consistently expressed interest in improving operations, and, in fact, many site improvements were evident since a prior visit (not associated with this evaluation) in October 1996. Although some areas of partial and non-compliance were observed during this evaluation, the site appeared outwardly to reasonably well run and free of major obvious operational defects.

Daily operations begin at 5:30 AM, with the arrival of the staff assigned to fuel and service the equipment for the day's use. Most of the Operations staff arrives at 7:00 AM, including the Landfill Operations Supervisor and/or the Chief Equipment Operator assigned to supervise the landfill activities for the day. Between the hours of 7:00 AM and 8:00 AM, the supervisor drives the site to inspect conditions, evaluates the number of operations staff members present, arranges for replacements for absent staff (if necessary), checks attendance and equipment sheets, and makes daily assignments to staff members. Inspections and work assignments are performed somewhat informally, and all staff members are not necessarily briefed as a group concerning the day's activities. On at least one occasion during this evaluation review, the Heavy Equipment Operators had proceeded to the working face of the landfill and waited until just prior to the start of refuse deliveries at 8:00 AM before receiving their daily operational instructions.

Heavy equipment operators receive their equipment assignments as they arrive at 7:00 AM, mount their equipment, and proceed to their respective working areas. Since all fueling and service is performed at the fuel island and maintenance facility, all equipment must be walked or driven to all operating areas.

While this practice does not present a particular problem for the rubber tired vehicles (i.e. scrapers and front end loaders), it results in increased nonproductive track time for the dozers, and significant negative impacts to the temporary access road leading to the main Class I disposal area from compactor traffic.

Two separate Class I disposal areas are operated on site, each with its own complement of operators, spotters and separate active faces. One site is designated for use by small vehicles such as automobiles and pick up trucks (small vehicle disposal area) and the other is designated for use by larger refuse collection vehicles, roll off trucks, and other large commercial trucks (main Class I disposal area).

SMALL VEHICLE DISPOSAL AREA:

The small vehicle disposal area is operated by one equipment operator, assisted by a spotter (on foot) who directs traffic and removes prohibited materials such as tires from the refuse delivered. The equipment operator has a compactor and a landfill dozer available for his use, which are parked adjacent to the active face.

The active face is maintained at a width of approximately 125 feet, with lifts constructed with approximately ten feet of thickness. Waste is deposited at the toe of the active face and pushed upwards. Waste is spread in layers about two feet thick, and compacted as it is placed in the cell. During the times of the inspections for this evaluation, it appeared that the operator spent the predominant amount of time operating the dozer, with minimal compactor operation.

Waste delivered to the small vehicle area consists of both Class I MSW and small amounts of C&D waste which is commingled and placed in the fill. Tires, white goods and other prohibited materials (as well as some recyclable scrap metal) is removed from the active area and placed in piles for removal to the waste tire storage area and the scrap metal pile. Periodically, though not necessarily daily, an equipment operator removes these materials to their respective storage areas using the Michigan front end loader with a hydraulic grapple-rake attachment. Any paint cans or other hazardous materials removed are placed in a pick-up truck and transported to the HHW Facility daily.

Intermediate cover is applied to the side and top slopes of the active area, and the floor where vehicles maneuver before dumping their loads is dressed and repaired as necessary. No daily (initial) cover is applied to this portion of the site at the end of each day.

The floor of the dumping area and the top and side slopes appeared to be well maintained, with a minimal amount of exposed refuse ("flagging"). It did look as though access to this portion of the site would be very difficult during wet weather due to the lack of a constructed temporary access road into the dumping area and the organic content of the floor soil.

MAIN CLASS I DISPOSAL AREA:

The main Class I disposal area in operation during the time of the evaluation inspections provided a somewhat atypical operations scenario in that the waste was being placed in a rather narrow portion of landfill side slope in an effort to fill out a gap in the slope, and matching it with existing contours in the closed landfill area. The fill area was due East of the leachate pond, on top of the previously existing landfill lift.

Traffic flowed into and out of the disposal location smoothly and without incident, and the temporary access road appeared to be in generally good condition, although there was significant evidence of compactor damage to the road surface on the west side. The road appeared to be constructed using a soil topping, and

without swales on the shoulders to direct stormwater flow off the roadway. In wet weather, the combination of compactor traffic, truck traffic, soil topping, and lack of drainage swales will probably result in access problems due to roadway rutting and instability.

Operations while filling the gap area consisted of depositing the refuse at the top of the slope and pushing down into the area to be filled. The configuration of the area to be filled, coupled with the location of the dumping area resulted in rather long pushes to get the refuse into the areas requiring filling. Dozers assisted by compactors were pushing waste more than 200 feet in order to place the waste in the right location, with the initial slope area being quite steep. The initial slope coming down from the dumping area was probably about 3:1, and probably steeper than that during part of the fill operation.

Activities associated with the filling the gap, referenced above, appear to be accomplished without any formal surveys or markers to indicate the extent of the fill area, the limits of the toe of the slope, or other construction dimensions. Rather, the operators indicated that they were "eyeballing" these construction dimensions, and it is unclear whether they were attempting to match their newly constructed slope to existing closed slopes or constructing them to allow for the cover system to match the existing closed slopes. No surveying activities were observed during the evaluation inspections, and no survey markers were present around the area of active filling. No construction plans were in evidence being used by the field operations staff to specify construction dimensions or procedures.

Waste was pushed down the initial slope and spread with a dozer, feeding two landfill compactors which pushed, leveled, and compacted the waste as it was placed in the area to be filled. Although the compactors were operating primarily on a relatively flat portion of the disposal area as the gap was filled, waste layer thickness at times exceeded two feet. The combination of the long push, the steep initial slope, and the thicker than optimum refuse layers made effective compaction difficult, and resulted in a relatively rough, uneven surface on the active face which was somewhat larger than necessary, increasing the area requiring daily cover at the day's end.

C&D waste commingled with typical Class I MSW further exacerbated the problem of getting a relatively smooth and uniform platform for compaction. The disposal area on the first day was characterized by an uneven surface and a steep side slope. Although subsequent inspections revealed a smoother, more uniform active face area, the typical conditions at the active face provided less than optimum compaction conditions.

Although no spotter (on foot) was present at the main Class I disposal area to direct traffic during the times of the evaluation inspection, an equipment operator operating the Michigan loader with the grapple-rake attachment was continuously removing tires, white goods and other materials from the active disposal area. While this arrangement was effective in removing most of the tires and bulky white goods and recyclable scrap metal, some tires remained in the disposal at the end of each day's activities.

Materials which were removed were placed on the western side of the dumping area (some 250 feet or so from the dumping area), and periodically, though not necessarily daily, removed to the appropriate storage areas using the Michigan loader with the grapple-rake attachment.

The floor of the dumping area, where the delivering vehicles maneuvered prior to dumping appeared to be rough and lacking of sufficient intermediate cover. There was a significant amount of refuse showing through the soil cover ("flagging") and the over all condition of the surface indicated a need for additional cover maintenance. Some of the refuse showing was surely wind blown litter from the disposal area, but much of it appeared to result from cover erosion and infiltration into the underlying refuse layer. Some of the exposed refuse was capable of causing tire damage to incoming vehicles, although no such damage was observed during the time of the evaluation inspections.

A horse shoe shaped diversion berm was placed around the down slope sides of the active face to prevent run off from flowing into any portion of the stormwater system. This berm was placed using a scraper pan, and shaped using the dozer.

Litter fencing in this disposal area was limited to the top of the area some distance from where the vehicles were dumping. This fencing appeared to have been placed in anticipation of continued routine operation subsequent to completion of the gap filling which was underway during the time of the evaluation inspections.

Daily (initial) cover was being applied using a combination of soil, soil mixed with shredded yard waste, and an alternative daily cover material designated "Formula 480". The alternative cover material was being used on a pilot test basis as approved by the FDEP. Soil and soil mixtures were used primarily on the slopped areas, with the formula 480 applied to the flatter areas being filled.

The soil and soil/yard waste portions of the cover were hauled to the disposal area using scraper pans, which dropped their loads at the top of the slope. The dozer then pushed the soil mixtures down the slope, attempting to keep the soil layer very thin. The large area and uneven nature of the active face made spreading uniform layers of soil very difficult, particularly on March 3rd when the active face seemed to be particularly rough and non-uniform.

The applicator for the formula 480, with its self powered sprayer, holding tank, and rear mount spray bar, was towed behind the dozer through the exposed refuse to apply the cover. The spray pattern appeared to be non-uniform, and at times intermittent, which reduced its ability to effectively cover the refuse. Being a pneumatic rubber tired vehicle, the applicator experienced two flat tires which effected its usability during the three days of the evaluation inspection. On the two days when formula 480 application was observed, the volume needed exceeded the capacity of the holding tank on the applicator, and cover application was terminated before the entire area could be effectively covered.

The effectiveness of the formula 480 appeared to be better on March 5th than it was on March 3rd, presumably due to the more uniform and even refuse surface encountered on the 5th. The uneven, non-uniform surface experienced on the 3rd resulted in very spotty and incomplete refuse coverage.

It was observed on March 8th that the soil/yard waste mixture had been used for cover at the end of the preceding day. The cover was uneven and incomplete, with significant areas of refuse still showing. The uneven surface of the cover appeared to result from the mixture "clumping" while being spread, making a uniform cover layer difficult to achieve. It also appeared that an insufficient amount of cover material was deployed to adequately cover the entire active face.

During the period of the evaluation inspection, the daily cover application could only be characterized as incomplete. Although the operators appeared interested in applying adequate daily cover, difficulties with the uniformity of the compacted face, problems with the formula 480 application, and the insufficient amount of cover material delivered to the active face resulted in less than optimum cover performance.

Although the site adequately handled the traffic and tonnage delivered during the evaluation inspections, little additional personnel, equipment, and cover capacity was apparent which could be used for daily maintenance activities such a floor cover maintenance, road maintenance, ditch maintenance, etc. Based on observed operations and the level of vibration and mound instability experienced when trucks and heavy equipment traversed the Class I fill area, it appears that compaction levels at the site could be significantly improved.

CLOSED LANDFILL AREA:

The closed area of the landfill, located mainly along the eastern side slope of Stage I, is maintained by the landfill staff to prevent problems from erosion and to insure proper operation of the associated stormwater system.

The closure system is experiencing significant problems associated with the stormwater channels installed in the side slopes (let down structures). These structures were installed so as to provide a straight path for

waster to run down the side slopes, interrupted only by the terraces installed at 20 foot elevation intervals along the slope. Although the closure plans call out "bumps" or changes in slope at intervals down the let down structures (identified as "energy dissipaters"), these features were not readily distinguishable upon direct observation. The channels are lined with a flexible asphaltic material ("liquid boot") which is not holding up very well to the action of stormwater flows and intrusion by grass and weeds, and does not appear to be designed to minimize maintenance requirements. In fact, the channels are failing in a number of locations due to undermining by water flows, sub-surface subsidence, and intrusion by grass which breaks up the surface.

Directing all flows in a straight line across the surface, including the discharges across the perimeter roadway into the stormwater ditches, does little to dissipate the energy of the water moving down the slopes, and sets the stage for future erosion problems in the channels themselves, across the perimeter roadway, and in the receiving ditches where the discharge enters.

Repairs to existing let down structures, using geofabric and sod, was observed at two locations during the time of the evaluation inspections.

Although this evaluation is specifically intended to address operational rather than design issues, the design of these let down structures can be expected to have a significant impact on the County's ability to adequately maintain the closed area and its associated stormwater ditches. Repairs which have already been attempted on the let down structures may continue to experience problems related to the inability of the existing system to slow down and dissipate the energy of the water flowing down the slopes.

The perimeter ditch system associated with the closed area is experiencing significant maintenance problems as well. Accumulation of silt is evident leading into many of the crossing culverts, and vegetation is intruding into ditch bottoms and rip rap surrounding drainage structures. Left unchecked, the intrusion of vegetation will impede the flow of stormwater, accelerate accumulation of silt, and break up the rip rap, rendering it ineffective as an erosion control measure. Significant erosion was observed at several points along the stormwater ditch banks.

The stormwater system will require routine periodic maintenance, including removal of vegetation, repair of eroded ditch side slopes, excavation to return ditches to their original cross section, and culverts to their designed inverts.

Litter fencing about eight feet in height is installed along the entire length of the stormwater ditch system, east of the closed area. The litter fence was intact and appeared to be effective, although the rebar fence supports were too short to support the full width of the fence fabric installed, resulting in the top few inches drooping significantly.

Despite passive gas vents placed at intervals along the side slope of the closed area, evidence of vegetative stress associated with gas migration through the intermediate cover and turf system is obvious around the site, particularly on the northeastern slope of Stage I. This unclosed portion of the landfill is within 250 feet of the closed area. Although the existing gas wells are obviously capturing considerable quantities of landfill gas, the barrier layer (cap) installed as part of the closure is forcing some gas to migrate westward toward the active fill area.

FUTURE DISPOSAL AREAS:

Stages II and III are designated as future disposal areas, providing capacity well beyond the current filling plan. The current proposed fill sequence plan, submitted to FDEP in January, 1997, projects fill activities up to October 2003 and includes fill activities occurring in Stages I and III (not including build out in Stage III).

Inspection of Stage II revealed a significant amount of surface water ponding occurring in low lying areas. There is evidence that this area accumulates significant amounts of stormwater during the rainy season, requiring discharge to maintain the required inward gradient for groundwater across the slurry wall. This area, hydrologically segregated from the other two stages, is subject to periodic pumping of retained run off into the perimeter stormwater system to prevent flooding. Evidence of this periodic pumping was observed in Stage II during the evaluation inspections in the form of a discharge hose extending from the pump station North of the yard waste processing facility across the perimeter road and into the stormwater ditch on the West side of the slurry wall. This hose had apparently been in place for some time, presumably for use when such pumping becomes necessary. Such discharges would proceed to the Manatee River via Gates Creek from NPDES Outfall #005 if sufficient quantities of water were pumped to flow over the discharge weir. Site operations are apparently conducted so as to perform this dewatering without triggering NPDES discharges and the attendant monitoring such discharges entail.

Stage III, the Westernmost stage and the next stage scheduled for development, is currently occupied by the paved access road and the area used for processing and storage of freon containing devices prior to off site shipment for recycling. The area adjacent to the main access road is well vegetated and relatively flat, providing good drainage and little opportunity for standing water. This area was previously used for waste disposal activities and is currently covered with soil and grass pending future use for additional disposal capacity.

WASTE TIRE STORAGE AREA:

The waste tire storage area contained somewhere between 2,000 and 5,000 tires at the time of the evaluation inspections. The tires were piled along and on top of the eastern containment area on the western edge of the berm, with some tires spilling outside the containment area. Tires observed outside the containment area on initial inspection were placed back inside the containment at the time of subsequent inspections.

The two containment areas are constructed using earthen berms about two feet tall, surrounding each area with the approximate dimensions of 50 X 200 feet. Each bermed area was interrupted at ground elevation by a break intended for use as a driveway into the site. It appeared as though the floor of the containment areas were about the same elevation as the driveways and the surrounding property, making the probability of containing run off water from any fire suppression activities difficult to retain in the containment areas. Only one of the containment areas was in use at the time of the evaluation inspections.

No tire processing activities were on going at the time of the evaluation inspections.

YARD WASTE PROCESSING AREA:

The yard waste processing area is operated by a privately owned company which processes yard waste for reuse under contract with the County. During the time of the evaluation inspections, several thousand cubic yards of shredded yard waste material were stockpiled on the site. This material was divided into separate piles placed adjacent to one another, in close proximity on the Eastern portion of the area. A large stockpile of unshredded yard waste awaiting processing was also located on the Western portion of the area.

The operator was observed shredding, screening, and hauling screened material off site.

A dozer was observed mixing yard waste with soil for use as daily cover. The pile, from which the yard waste material was being taken, was steaming significantly as the yard waste was being removed and mixed, indicating active decomposition taking place in the pile.

SCRAP METAL STORAGE AREA:

The scrap metal storage area, located north of the stormwater pond, consists of a lime rock pad used to stockpile recyclable scrap metal removed from disposal operations prior to off site shipment for recycling. Periodically, a contractor retained by the County is called in to remove the accumulated scrap metal items. Freon containing devices are not placed in this area unless they have been processed to evacuate any residual freon and marked with a large, fluorescent orange "X".

Items extracted from the two waste disposal locations are first placed in smaller piles at each respective disposal location and subsequently moved to the scrap metal pile and consolidated for shipment. The Michigan loader equipped with the grapple-rake is used to move material from the disposal sites to the scrap metal pile, making as many trips as necessary to accomplish the task. This same loader configuration is used to load the contractor's truck when a sufficient quantity of scrap metal has accumulated.

At the time of the evaluation inspections, a variety of scrap metal items were observed in the scrap metal pile, including non-freon containing white goods, an air compressor, a riding lawn mower with the gas tank attached, sinks, conduit, sheet metal, water heaters, and what appeared to be some heavy equipment parts. One lawn mower and one refrigerator in the pile had a large fluorescent "X" painted on them, indicating that they had been processed to remove potential contaminants.

In addition to the scrap metal in the pile, a plastic bucket and some paper and plastic trash was also observed.

FREON CONTAINING DEVICE STORAGE AND PROCESSING AREA:

The area used to store freon containing devices (i.e. freezers, refrigerators, air conditioners) is located on the south side of Stage III, near the entrance to the adjacent waste water treatment facility. This area is used to store these devices prior to processing to remove any residual freon content and eventual shipment off site for recycling. Periodically, a contractor retained by the County is called to haul the processed devices off site for recycling.

Staff from the County's fleet management operations, trained in proper evacuation of freon from such equipment, perform the task of removing the residual freon.

This site is also used to store some of the scrap metal items which might contain hydrocarbon contaminants (i.e. gasoline, diesel fuel, oil, etc.) prior to their processing to remove residual fluids.

All processed items are marked a large fluorescent orange "X" to indicate that they are ready for recycling. No certification tags, used to confirm the absence of residual freon, were observed attached to any devices during the time of the evaluation inspections.

During the initial inspections, more than 100 refrigerators and freezers were observed awaiting processing. Subsequent inspections the following week revealed that many of the units had been removed, and most of the remaining units were marked with the orange "X", indicating that they had been processed. All units had their doors removed.

LEACHATE and STORMWATER PONDS:

The leachate pond located in Stage I receives leachate pumped from Stages I and III. The surface elevation of the leachate in the pond is required to be maintained such that it is a minimum of one foot lower than the adjacent stormwater pond. Staff gauges in both ponds allow routine verification of this elevation differential. During the time of the evaluation inspections, the water levels in both ponds were quite low, and the water elevation in the stormwater pond was consistently more than one foot above the surface of the leachate pond.

Exact elevations were somewhat difficult to determine for an observer unfamiliar with the staff gauge markings, due to a lack of easily discernible numerical markings on the staff gauges.

The side slopes of the leachate pond appeared to have experienced a significant amount of erosion from inflows from the surrounding roadways and slope landfill areas. This was evidenced by the large amount of silt washed into the pond from the side slopes and deposited in the pond bottom. While most of the major washouts had been adequately repaired, a significant amount of dirt remains deposited in the pond, reducing its storage capacity.

The effects of this erosion and subsequent repairs were particularly apparent in the northeast and southeast corners of the pond where most of the surface runoff had apparently entered the pond. The overall condition of the side slopes in the leachate pond was rather poor, although vegetation had stabilized the slopes somewhat. It appeared as though the condition and steepness of the slopes would promote additional erosion problems during the next major rain event unless action is taken to divert surface run off from entering the pond.

A significant amount of erosion was observed around the leachate discharge pipes entering the pond from Stages I and III.

Wildlife, including wading birds and at least one alligator was observed inhabiting the leachate pond.

The stormwater pond, immediately west of the leachate pond, is separated by a narrow roadway used for monitoring and maintenance. The stormwater pond appeared to be in much better condition than the leachate pond, with little evidence of side slope erosion or direct inflows from the surrounding roadways, etc. The side slopes appeared to be well vegetated and stable.

The water level in the stormwater pond was very low, with the pond bottom showing in several locations. Grass and other vegetation was observed growing in the exposed portions of the pond bottom.

A diesel powered pump, used to pump stormwater to the waste water treatment plant, was placed on the southern bank of the pond.

The ditch system leading into the stormwater pond was in need of maintenance in several areas, particularly around the culverts and rip rap areas. Most of the ditch bottoms were dry during the time of the evaluation inspections.

The ditch system in Stage II was in excellent condition during the time of the evaluation inspections.

HOUSEHOLD HAZARDOUS WASTE STORAGE FACILITY:

The household hazardous waste storage facility was not in operation during the time of the evaluation inspections, and a detailed evaluation of this operation is beyond the scope of this effort. However, the general condition of the facility was observed and documented in conjunction with the landfill operations inspections.

A significant number of paint cans was observed stacked, apparently outside the containment area, awaiting the process of "bulking" the paint (transferring the paint from small containers and mixing into larger 55 gallon drums). Several L.P. gas cylinders and a large number of what appeared to be gas cans and other containers were stored off the pavement at the northern end of the facility. While the area was generally tidy, it appeared to be close to its maximum storage capacity.

The facility was well secured to prevent unauthorized access and appeared to be well maintained.

The facility is open to the public one day per month.

SCALE HOUSE:

The scale house was not inspected in detail as part of this evaluation effort. The external operation appeared to keep traffic moving smoothly in and out of the site. Casual observation of transaction times ranged from 40 seconds to two minutes 32 seconds, with an average of 69 seconds. Customer waiting times, depending on the length of the line entering the site were never more than 10 minutes during the time of the evaluation inspections.

Both scale platforms were functioning during the time of the evaluation inspections, although one of the platforms was closed briefly (approximately 2 hours) for maintenance (cleaning under the platform) during one day of the evaluation.

The scale house personnel arrived at 7:00 AM and began admitting traffic to the site at 8:00 AM. The scale house closed and stopped incoming traffic at 5:00 PM.

ADMINISTRATIVE OFFICES:

Located directly south of the scale house, the administrative offices consist of a concrete block building with an adjacent double wide office trailer. The permanent structure houses the landfill operations staff, including the Solid Waste Manager and the Solid Waste Technical Coordinator. The trailer houses the recycling staff.

Additional facilities in the permanent structure include rest rooms, an employee locker room, an employee break room, a small garage area, and a reception area. Though a bit crowded, the facilities, including parking capacity, appeared to be adequate for the existing staff. No space for a separate training room is provided, but the lunch room does double duty as a training room.

A two way base radio is installed near the Solid Waste Technical Coordinator's desk, providing the ability to monitor operational communications.

The buildings appeared to be in a good state of repair.

MAINTENANCE FACILITY and FUEL ISLAND:

The maintenance facility and fuel island are located immediately south of the administrative offices and east of the household hazardous waste storage facility. Both facilities are constructed on concrete foundations, but the surrounding access to both areas is unpaved. It appeared as though these unpaved areas would present an access problem during rainy weather, particularly for smaller vehicles.

The maintenance facility consists of a modular steel frame building with two maintenance bays equipped with external overhead roll up doors. The dimensions of the maintenance facility is barely sufficient to allow access for large pieces of heavy equipment, requiring that longer pieces of equipment remain partially outside the structure while maintenance is underway. It also appeared that the large dozers would have to have their blades removed if the front end needed to be driven inside for maintenance. The size restrictions associated with this facility result in equipment having to be removed off site for major repairs.

The maintenance facility is equipped with an air compressor and a welder used for repair activities.

The fuel island is equipped with one fuel pump for diesel fuel and one fuel pump for gasoline. The pumps are protected by steel bollards and placed on an elevated concrete pad. Fuel is stored in underground tanks (10,000 gallons diesel, 1,000 gallons gasoline). Fuel is dispensed as needed, with personnel arriving at 5:30 AM to service and fuel equipment prior to the day's activities.

The corners of the fuel island are protected by concrete block walls about four feet high, extending about nine feet on each side of the corner. Vehicle access is provided between these corner walls, although the

openings do not appear to be large enough to allow any but the smallest equipment to pull through the fueling area.

The area is equipped with reel mounted air hoses and a water supply for servicing vehicles.

Two fire extinguishers are in place for fire control, and the emergency shut off valve control is located in the administrative offices.

MISCELLANEOUS OBSERVATIONS:

The following miscellaneous observations were made during the site inspections conducted as part of the evaluation and during the process of reviewing records and plans available for inspection during the evaluation. These observations are not included in the function by function descriptions compiled above in this report, but are considered to be significant to the routine operations at the site.

Table 6:
Miscellaneous Observations

- 1) Construction plans did not seem to be readily available to field crews for use in development of site construction procedures. One set of construction plans was available in the administrative offices, but the field staff appeared to have only minimal familiarity with the development plans.
- 2) Although surveying equipment was available for use at the site for determining field elevations, calculation of slopes, etc., this equipment, according to staff interviewed, was not routinely used to establish construction parameters. Rather, most determinations of slope, elevation, extent of slope, etc. were "eyeballed in" (using staff terminology).
- 3) Site operators appeared to be genuinely interested in doing a good job, and appeared to possess the basic skills and motivation to comply with operational requirements.
- 4) Although a draft fill sequence plan had been submitted to FDEP, field staff apparently had little knowledge of the contents of this plan and did not indicate that they had much input in the development of the plan.
- 5) The operations plan was in draft form and not generally available to the staff.
- 6) Safety equipment made available to the staff included steel toed boots, gloves, eye protection, head protection, reflective vests, and hearing protection. Although this equipment was characterized as "available", only boots, gloves and reflective vests were observed in routine use at the site. Steel toed boots are required to be worn by site operators.
- 7) Dust respirators are "provided if requested", but no employees were observed using them during the times of the evaluation inspections, and no formal respirator program was in place at the site.
- 8) Back supports were not routinely supplied to site staff.
- 9) Pre-employment drug testing, random drug testing, and testing in response to vehicular or equipment accidents is routinely conducted at the site.
- 10) Site safety programs appeared to be somewhat informal. A safety officer had been designated, but formal safety meetings with specified training topics were apparently not being routinely conducted.
- 11) Uniforms are supplied to all field staff members. A uniform service launders and maintains uniforms.
- 12) Two way radios are available on site for field communications, including emergency response and routine operational communications. A base station is monitored at the administrative offices and seven portable radios are available for use around the site. Radios are assigned to the Solid Waste Technical Coordinator, the Landfill Operations Supervisor, the two Chief Equipment Operators, and to the major operations locations at the site (the main Class I disposal area, the small vehicle disposal area, and the household hazardous waste storage facility).

- 13) Ground water monitoring wells at the site were observed to be unlocked, although locking enclosures were installed. Some of the locking enclosures had damaged hinges, allowing the hinged caps to become detached from the enclosures.
- 14) Waste water treatment sludge is being accepted at the site for disposal without analytical information regarding trace metal or moisture content. No paint filter testing was being performed to verify compliance with the free liquids ban.
- 15) Cover dirt at the site appeared to be in very short supply, with few alternatives for acquiring sufficient additional quantities. Mixing soil with shredded and screened yard waste will make the existing dirt stock pile last longer, and some additional dirt will be acquired from excavation of ponds at the adjacent waste water treatment plant, but no long term source of cover dirt was apparent.

V: Compliance with Operational Requirements of Chapter 62-701, F.A. C. (and other relevant regulations)

The basic regulations governing the operation of landfills in the State of Florida are administered by the Florida Department of Environmental Protection (FDEP) and codified in Chapter 62-701 of the Florida Administrative Code (F.A.C.). Additional regulations governing specific aspects of landfill operations are included in Chapters 62-257 (Asbestos Removal), 62-281 (Refrigerant Recovery and Recycling), 62-703 (Training of Landfill Operators), 62-710 (Management of Used Oil and Oil Filters), 62-711 (Waste Tire Rule), 62-712 (Management of Bio-medical Wastes), 62-730 (Hazardous Wastes, plus the Federal regulations contained in 40 CFR, parts 260, 261, and 262), and 62-737 (Management of Mercury Containing Devices). For the purposes of this evaluation, these regulations, in addition to referenced Federal regulations, form the primary basis determining regulatory compliance.

Activities ancillary to actual landfill operations are subject to additional State and Federal regulations, including stormwater discharges (Federal NPDES programs, now delegated to FDEP, Chapter 62-25, F.A.C.), dredge and fill activities (Chapter 62-312, F.A.C.), delineation of wetlands (Chapter 62-340, F.A.C.), ground water classes and standards (Chapter 62-250, F.A.C.), full cost accounting (Chapter 62-708, F.A.C.), production and use of compost (Chapter 62-709, F.A.C.), laboratory quality assurance (Chapter 62-160, F.A.C.), sludge management (Chapter 62-640, F.A.C.), as well as others. Many of the State regulations also reference specific components of analogous Federal regulations.

These two lists are not intended to represent a comprehensive tabulation of all regulations potentially governing all activities which might occur as part of landfill development or operation. They do reveal the most common regulations dealt with by landfill operators in Florida.

The primary source for regulations governing landfill operations in Florida (Chapter 62-701, F.A.C.) contains separate sections dealing with most aspects of landfill construction, permitting, operations, and closure. For the purposes of this portion of the evaluation, the sections dealing with definitions (62-701.200), prohibitions (62-701.300), Landfill Operations Requirements (62-701.500), water quality and leachate monitoring (62-701.510), special waste handling (62-701.520), and long term care (62-701.620) will form the main basis for evaluating regulatory compliance of basic landfill operations. Additional sections of Chapter 62-701, as well as other portions of the Florida Administrative Code will be referenced in the context of specific additional activities occurring at the Manatee Solid Waste Management Facility.

Issues associated with permit compliance and specific provisions of existing site permits will be discussed in the following section of this report.

One of the bases for proper landfill operational procedures is the list of prohibitions contained in Chapter 62-701.300. This section of the landfill rule describes a series of siting prohibitions, operating prohibitions, and materials which are prohibited from landfill disposal. The discussion here is targeted specifically for Class I landfills (landfills receiving more than 20 tons per day of municipal solid waste) but should not be taken to imply that such disposal in a differently classified landfill is allowed.

Tables 7 and 8, below, summarize the basic prohibitions associated with operating Class I landfills in Florida (additional siting and design prohibitions, included in the rule, are not included):

**Table 7:
Prohibited Materials**

Description of Prohibited Material	Reference from the Florida Administrative Code
Lead-Acid Batteries (automotive batteries, etc.)	62-701.300(8)(a)
Used Oil (except as provided for in Chapter 62-710, F.A.C.)	62-701.300(8)(b)
Yard Trash (except in unlined landfills classified by FDEP rule)	62-701.300(8)(c)
White Goods (refrigerators, freezers, ranges, water heaters, washers, dryers, etc.)	62-701.300(8)(d)
Whole Tires (except as provided in Chapter 62-711, F.A.C.)	62-701.300(8)(e)
Hazardous Wastes	62-701.300(4)
PCB's	62-701.300(5)
Biohazardous Waste	62-701.300(6)
Mercury Containing Lamps and Devices	62-737.300(1)

**Table 8:
Operational Prohibitions**

Item Number	Description of Operational Prohibitions for Class I Landfills	Reference from Chapter 62-701
1	No person may operate a Class I landfill facility without a permit issued in accordance with the provisions of Chapter 62-701	62-701.300(1)(a)
2	No person may dispose of solid waste such that air quality or water quality standards are violated (including ground water and/or surface water).	62-701.300(1)(b)
3	No solid waste shall be disposed of in a natural or artificial body of water, including ground water.	62-701.300(2)(f)
4	No solid waste shall be disposed of within 200 feet of any natural or artificial body of water, including wetlands within FDEP jurisdiction unless the body of water is contained completely within the boundaries of the disposal site and does not discharge off site, or the site design satisfies the FDEP requirements for demonstration that such activities will not result in violation of water quality standards.	62-701.300(2)(g)
5	Open burning of solid waste is prohibited	62-701.300(3)
6	No hazardous waste shall be disposed of at a Class I landfill.	62-701.300(4)
7	No PCB's shall be disposed of at a Class I landfill.	62-701.300(5)
	No unprocessed or untreated biohazardous waste shall be disposed of at a Class I landfill.	62-701.300(6)
8	No person who knows or who should know of the nature of such solid waste shall dispose of the listed prohibited wastes in a Class I landfill (see table 7 for list of defined "prohibited" wastes.	62-701.300(8)

Table 8 (continued)		
Item Number	Description of Operational Prohibitions for Class I Landfills	Reference from Chapter 62-701
9	No uncontainerized liquid waste (waste which fails the so called "paint filter test") shall be disposed of in a Class I landfill unless: (1) the waste is a household waste other than septic waste, (2) the waste is leachate, gas condensate, or by products derived from the solid waste disposal unit, (3) the containers holding the liquid waste are small containers similar in size to those normally found in household waste, (4) the container is designed to hold liquids for use other than storage, (5) the waste is a household waste.	62-701.300(10)(a) and (b)
10	No containers or tanks of twenty gallons or larger shall be disposed of in a Class I landfill unless they have one end removed, one end cut open, or have a series of punctures around the bottom to insure the container is empty and free of residue.	62-701.300(10)(c)

These prohibitions are tabulated here in detail because they form the basis for determining the proper operating practices for random load inspections, prohibited material extraction programs, and many day to day operating procedures discussed elsewhere in the rule. These restrictions should be well known to all operators at the site, particularly those responsible for site supervision and management.

Although the existence of a valid operating permit issued by the FDEP explicitly demonstrates that all of the permitting, design, and site requirements in Chapter 62-701. 310 to 62-701.430 were complied with at the time of the current permit application, several provisions of these sections have operational implications which should be discussed in the context of regulatory compliance for landfill operations. These provisions are summarized in table 9, below.

In some cases, the fact that the Manatee County Solid Waste Management Facility is designed and operated as a slurry wall system (and therefore already considered an "alternate procedure" as far as the rule is concerned) allows some divergence from these requirements, as previously approved by the FDEP at the time the permit was issued or renewed. This is particularly true with respect to the liner design and leachate system design requirements.

**Table 9:
Permitting, Design and Site Requirements Which Have Operational Impacts**

- 1) 62-701.320(3)--- The "Irresponsible Applicant" provisions provide a basis for denial of new or renewed if the applicant has a history of "state or federal notices of violation, judicial action, or criminal prosecution for activities that constitute violations of Chapter 403, F.S., or the rules promulgated thereunder, and could have prevented the violation through reasonable compliance with Department rules".
- 2) 62-701.320(7)(c)(2)--- Permit application shall include a contingency plan to cover interruption of operations and emergencies such as fires, explosions, or natural disasters.
- 3) 62-701.330(3)(a)--- Construction and operating permits must be renewed at least every 5 years. Renewal applications must demonstrate compliance with any applicable new rules or requirements. Closure and long term care provisions must be updated.

- 4) 62-701.340(1)--- "A landfill shall be designed, constructed, operated, **maintained**, closed and monitored throughout its design period to control the movement of waste and waste constituents into the environment so that ground water and surface water quality standards and criteria of Chapters 62-3 and 62-302, F.A.C., shall not be violated beyond the zone of discharge specified for the landfill.
- 5) 62-701.340(3)(c)--- Class I and II landfills are authorized to receive general, non-hazardous household, commercial, industrial, and agricultural wastes (subject to the restrictions of rules 62-701.300 and 62-701.520, F.A.C.).
- 6) 62-701.400(6)(b)(2)--- "Leachate surface impoundments shall be designed in segments such that any one segment may be taken out of service for inspection and repair with no interruption of service."
- 7) 62-701.400(9)(a)--- "A stormwater management system shall be designed, constructed and **maintained** which, at a minimum, prevents stormwater from the peak discharge of the 25 year storm event from running onto those portions of the landfill which have not been closed."
- 8) 62-701.400(9)(b)--- "A stormwater management system shall be designed, constructed and **maintained** which collects and controls, at a minimum, the volume of runoff from a 25 year, 24 hour storm event."
- 9) 62-701.400(9)(d)--- "Stormwater management systems shall be designed to avoid mixing of stormwater with leachate. Stormwater or other surface water which comes in contact with the landfilled solid waste or mixes with leachate shall be considered leachate and is subject to the requirements of Rules 62-701.500(8) and 62-701.500(5), F.A.C.
- 10) 62-701.400(9)(a)--- "Landfills that receive biodegradable wastes shall have a gas monitoring and control system designed to prevent explosions and fires, and to minimize off-site odors and damage to vegetation."
- 11) 62-701.400(9)(a) (1) through (4)--- Gas control systems shall: (1) prevent gas concentrations within the landfill from exceeding 25% of the lower explosive limit (LEL), (2) prevent gas concentrations from exceeding the LEL at or beyond the property boundary, (3) prevent gas concentrations from causing objectionable odors at or beyond the property boundary, (4) be designed to reduce gas pressure in the interior of the site by collecting gas to prevent it from migrating laterally, (5) include a routine gas monitoring program, with all monitoring points sampled at intervals specified in the permit (at least quarterly) and reported to the FDEP quarterly. Detection of gas levels in excess of these requirements must be reported to the FDEP within 7 days, including a description of the nature and extent of the problem and any remedial actions to be taken. Any remedy shall be taken with 60 days unless the FDEP approves a different schedule.

Section 62-701.500 specifies the basic operational practices required at landfills in Florida. The requirements specified include provisions dealing with operational plans, contingency plans, operator training, controlling and monitoring incoming waste, weighing and reporting waste received, water quality monitoring, control of site access, load checking programs, hazardous waste handling, cover requirements, working face management, litter control, leachate management and monitoring, gas monitoring, signage on site, communications on site, equipment requirements, and record keeping and reporting requirements. Many of these same issues are explicitly called out in the operating permit for the site (SO41-211176), and are discussed in this section of the report as regulatory compliance issues, rather than permit compliance issues (section VII of this report). Any instances where permitted specific conditions differ from the Rule requirements discussed below will be addressed in Section VII.

Table 10, below summarizes the operational issues discussed in this section and the status of site compliance observed during the evaluation inspections at the Manatee County Solid Waste Management Facility. Determination of compliance is limited to the observations made during the times of the evaluation inspection, and the degree of compliance reflects the opinion of the Evaluator. A series of "Compliance Notes" follows the table, which describe the various compliance issues observed during the evaluation inspections of the site.

**Table 10:
Compliance with Operational Requirements of 62-701.500**

Rule Requirement	Compliance Status of Site	Compliance Note Number
All Class I landfills shall have at least one trained operator at the landfill during all times when the landfill receives waste (trained in accordance with Chapter 62-703, F.A.C.)	In compliance	1
All Class I landfills shall have a spotter at each working face at all times the landfill is in operation to detect unauthorized waste	In partial compliance	2
Each landfill owner or operator shall have an operations plan that provides written, detailed instructions for the daily operations of the landfill, including: (1) designation of responsible persons, (2) contingency operations, (3) controlling waste types delivered to the site, (4) spotter duties and procedures, (5) procedures for removal of prohibited wastes, (6) weighing wastes, (7) traffic control, (8) fill sequence, (9) compaction, (10) application of cover, (11) operation of gas, leachate and stormwater controls, and (12) water quality monitoring.	In partial compliance	3
The following records shall be kept at or near the landfill site (or in a place specified in the operations permit), in a place accessible to all landfill operators: (1) all records, reports, analytical results, demonstrations, and notifications required by Rule, (2) all permits, modifications, accompanying engineering plans and supporting information.	In partial compliance	4
All incoming waste shall be weighed and a record of daily tonnage shall be compiled monthly and submitted to FDEP quarterly.	In compliance	5
Amounts of the following types of waste shall be estimated and reported with the tonnage reports: household waste, commercial waste, ash residue, incinerator by-pass waste, construction and demolition debris, treated biohazardous waste, agricultural wastes, industrial wastes, yard trash, industrial sludges, and water/air treatment sludges.	In partial compliance	6
Access to the site shall be controlled using fencing, gates, or other barriers	In compliance	7
A random load inspection program shall be in place at the landfill which inspects a minimum of three loads per week, provides for a detailed inspection of waste loads, and provides for a feed back mechanism to the haulers to determine the source of the waste.	In partial compliance	8
If hazardous wastes are identified by the random load inspection program, or otherwise discovered, the following actions shall be taken: (1) the FDEP, the hauler, and the generator (if known) shall be promptly notified, (2) the area where the waste was deposited shall be cordoned off from the public, (3) if the generator or hauler cannot be identified, the site operator will insure proper clean up and disposal.	In partial compliance	9
Random load inspection records shall be maintained at the site for three years.	In compliance	10

Rule Requirement	Compliance Status of Site	Compliance Note Number
Minimum random load inspection data shall include, at a minimum: (1) date and time of inspection, (2) names of hauling firm and driver, (3) vehicle license plate number, (4) source of the waste as stated by the driver, and (5) observations made by inspector during detailed inspection.	In compliance with record keeping requirements	11
Inspectors, scale house personnel, and spotters shall be trained to identify unauthorized wastes or potential sources of regulated wastes. The training program shall emphasize familiarity with containers and labels typically used for hazardous wastes and hazardous materials.	In compliance	12
All waste at Class I landfills shall be spread in layers approximately two feet in thickness and compacted to approximately one foot of thickness before placing the next layer of waste.	In compliance	13
Solid waste shall be formed into cells to construct horizontal lifts.	In compliance	14
The working face shall have a slope no greater than three feet of horizontal run for every one foot of vertical rise.	In partial compliance	14
Lift depths should not normally exceed 10 feet.	In compliance	14
The working face shall be only wide enough to accommodate incoming traffic and to minimize the area requiring daily (initial) cover.	In partial compliance	14
Initial (daily) cover shall be applied and maintained to the working face at the end of each operating day. Six inches of compacted soil or alternative cover materials approved by the FDEP shall be used for daily cover.	In partial compliance	15
Intermediate cover (12 inches of compacted soil), in addition to the daily cover, shall be applied within seven days to cells which will not receive additional waste for 180 days.	In partial compliance	16
Disposal units which have been filled to design dimensions shall receive final cover within 180 days after attaining final elevation or in accordance with the closure plan.	In compliance	17
Uncontrolled or unauthorized scavenging shall not be permitted at any landfill site.	In compliance	18
A litter policing operation shall be employed to keep litter from leaving the working face area of the landfill.	In compliance	19
Erosion control measures shall be employed to correct any erosion which exposes wastes or causes malfunction of the stormwater management system.	In partial compliance	20
Site operator shall operate, monitor, and maintain the leachate collection system	In compliance	21
The landfill operator is responsible for having a written contract or agreement with the off-site treatment facility receiving leachate from the site.	In partial compliance	22
The landfill operator shall have a prepared contingency plan to handle leachate collection, removal, and treatment problems such as interruptions of discharges to the waste water treatment plant.	In partial compliance	23
Quantities of leachate collected shall be recorded in gallons per day before on site treatment or shipment off site.	In compliance	24
A recording rain gauge shall be installed, operated, and maintained to record precipitation at the landfill.	In compliance (?)	25

Rule Requirement	Compliance Status of Site	Compliance Note Number
All landfills receiving organic wastes shall implement a landfill gas monitoring program to meet requirements of Rule 62-701.400(10), F.A.C.	In compliance	26
Stormwater management systems shall be operated and maintained as necessary to meet applicable standards of Chapters 62-3, 62-302, and 62-25, F.A.C.	In partial compliance	27
The landfill shall have sufficient equipment to ensure proper operation of the landfill, and for excavating, spreading, compacting, and covering waste. Sufficient back up equipment shall be available within 24 hours of primary equipment break down.	In partial compliance	28
The site shall be equipped with communications equipment for emergency and routine communications.	In compliance	29
Class I landfills shall be equipped with personnel shelter, sanitary facilities, and first aid equipment.	In compliance	30
Class I landfills shall be equipped with fire protection and fire fighting capabilities.	In compliance	31
Class I landfills shall be equipped with litter control devices, portable fences, or other suitable devices	In compliance	32
Class I landfills shall be equipped with signs indicating the name of the operating authority, traffic flow, hours of operation, and restrictions or conditions of disposal.	In compliance	33
Class I landfills shall be equipped with all weather access roads that are passable and safe under normal operating conditions.	In compliance	34
Class I landfills shall be equipped with inside perimeter roads and other on site roads to allow access to monitoring devices and stormwater controls, and for landfill inspections and fire control.	In compliance	35
Records pertaining to the operation of the landfill shall be maintained for the design life of the site.	In compliance	36
Class I landfills shall maintain an annual estimate of the remaining life and capacity in cubic yards of the existing, constructed landfill and remaining capacity and site life of other permitted areas not yet constructed.	In partial compliance	37
The landfill shall have methods for dust control.	In compliance	38

Compliance Notes for Table 10

- 1) Proof of training is maintained at the site for the Solid Waste Technical Coordinator (Ben Alex), the Landfill Operations Technical Coordinator (Bud Bell), and the two Chief Operators (Gary Seeley and Steve Tucker). All trained operators received four hours of continuing education credit in 1996, and will require eleven additional hours of continuing education credit before their three year certifications periods end to comply with the requirements of Chapter 62-703, F.A.C. These hours must be obtained before 7-6-99, for Ben Alex, 11-14-99, for Bud Bell, 11-16-99 for Gary Seeley, and 11-19-98, for Steve Tucker.
- 2) A spotter was observed working on foot at the small vehicle area on all occasions during the evaluation inspections. In addition, an operator was working on the Michigan loader at the main Class I disposal area, removing tires and white goods during the evaluation inspections. However, no spotter was stationed on foot at the main Class I disposal area. Although the argument could be made that the equipment operators serve as the spotters at the main Class I disposal area, the FDEP has expressed concern about the lack of an individual in a position to observe each load as it is discharged. The

limited ability of the loader operator to detect and remove unauthorized materials was evidenced by the detected presence of waste tires in the active face area during and after daily cover activities during the evaluation inspections. Personnel on heavy equipment may be able to detect most of the larger items like tires or white goods, but only after the loads are spread at the active face, and typically after the hauler has left the site. Heavy equipment are not in the best position to detect smaller amounts of unauthorized materials which may have an impact on leachate and ground water quality. At many sites spotters take weigh ticket copies from arriving vehicles to verify that all vehicles have crossed the scales.

- 3) The operations plan for the site was presented in draft form, and did not include all of the provisions required by the Rule. The operations plan that was included with the original permit application and subsequent renewals was not available at the site for review. Operations plans should be familiar to all site personnel and readily available, preferably with individual copies for each employee. The content should be comprehensive and specific enough to allow use as a daily operating guide and a training tool for new employees. Operations plans should be updated periodically, in response to site modifications, procedural changes, and changes in personnel or equipment. Specific recommendations regarding the content of the operations plan are included in section VIII of this report.
- 4) While the pertinent permit documents were available on site, all engineering plans and supporting documentation was not. These documents and plans provide an important resource for site operators' reference when problems with system components are encountered.
- 5) Tonnage records were kept current, complete with monthly details and summaries. Although daily tonnage tallies were not part of the monthly reports, it is assumed that such information is available in the scale house computer system.
- 6) Waste reporting did not include all of the waste categories included in the Rule, although this is not typically a problem with the regulatory agency. The letter of the rule requires estimating the quantities of those items listed in item #6 when reporting waste quantities.
- 7) Access to the site is well controlled with fencing, locking gates, and ditches. All incoming traffic is routed through the scale house or to the administration building, except deliveries to the white goods area and the household hazardous waste storage facility. However, no positive evidence of crossing the scales (copy of weigh tickets, etc.) is required of haulers before being allowed to dump.
- 8) One random load inspection was observed during the time of the evaluation inspection. This inspection could only be characterized as cursory at best, and did not appear to comply with the requirement to conduct a "detailed inspection of waste loads". The process employed during the inspection, which was characterized by the Litter Enforcement Officer as typical, involved following a truck up to the disposal area, observing the load being discharged, and walking around the unspread load to conduct a visual inspection. No effort was made to spread or disturb the discharged load during the inspection process. The random load inspection form being used does not appear to be detailed enough to allow the personnel performing the inspections to record the various prohibited and hazardous materials which might be encountered (see table 7). Evaluation of 247 load inspection reports from 1995, 1996, and 1997 revealed a positive detection rate of 6.5%, that is 16 of the 247 loads had detectable prohibited materials. Most of the items detected were waste tires, lead acid batteries, and white goods. Only 10 paint cans were recorded during this period. Many of the inspection reports were "clustered" with three inspections conducted on the same day, many of them less than 15 minutes apart. The more recent records appeared to meet the requirement to perform three load inspections per week, but the older records, prior to the last half of 1996, showed several periods when load inspection intervals routinely exceed one week. There was no evidence of any formal feed back to haulers or generators of prohibited wastes which were detected, although anecdotal accounts of such notification was offered during discussions with staff.
- 9) Procedures for handling hazardous wastes detected appeared to be somewhat informal, with no specific written procedures generally available to operations or inspection staff. The lack of a final version of the operations plan resulted in the following evaluation: (1) On site notification procedures appeared to be less specific than would be generally considered adequate. (2) Responsibility for emergency response activities was not clearly delineated. (3) Exactly which wastes were of concern was not specifically delineated. (4) No procedures for isolating the scene were available for review. (5) Notification of the FDEP, the hauler, and the waste generator were not a part of the draft operations

- plan. (6) No specific arrangements for emergency clean up response was included in the draft operations plan. See recommendations for improvements to the site operations plan in Section VIII of this report.
- 10) Random load inspections reports on site were observed going back to 1995.
 - 11) Minimum required load inspection data is included on the inspection form utilized at the site (see item 8, above).
 - 12) Inspectors, spotters, and scale house personnel attended waste acceptability training, 9-10-96. Periodic retraining, particularly with respect to the specific provisions of the site operations plan should be conducted periodically.
 - 13) Observations conducted during the evaluation inspections indicated that, for the most part, waste layers were spread in approximately 2 foot thickness, although there were occasional instances where the spread layers seemed to be a little on the thick side. The active face area was large enough to make optimum compaction of waste layers difficult. Qualitative observation of the condition of the surface of the active face at day's end and the level of vibration and mound instability experienced when trucks and heavy equipment traversed the Class I fill area indicated that compaction levels at the site could be significantly improved.
 - 14) Construction of lifts and cells appeared to be in compliance with the Rule, but the slope of the active face appeared to be steeper than 3:1 during portions of the fill activities observed during the evaluation inspections, and the active face was larger than necessary due to method chosen to fill the gap area (the area being filled during the evaluation inspections).
 - 15) Initial cover was applied, but, due to problems with the Formula 480 application, the size and rough nature of the active face, and the inadequate quantity of soil applied, the entire active face at the main Class I disposal area was not completely covered during the times of the evaluation inspections. Daily or initial cover was not applied at all to the small vehicle disposal area during the times of the evaluation inspections.
 - 16) Intermediate cover appeared to have been applied in the appropriate areas at the site, but the cover on the floor of the active Class I dumping area appeared to have a significant amount of refuse showing through the soil cover ("flagging") and the overall condition of the surface indicated a need for additional cover maintenance. Some of the refuse showing was surely wind blown litter from the disposal area, but much of it appeared to result from cover erosion and infiltration into the underlying refuse layer. Some of the exposed refuse was capable of causing tire damage to incoming vehicles, although no such damage was observed during the time of the evaluation inspections.
 - 17) Final cover appeared to have been applied in conformance with Rule and closure plan requirements.
 - 18) No scavenging of any kind was observed during the times of the evaluation inspections, except the removal of waste tires and white goods as required by the Rule.
 - 19) Litter collection activities were observed on every day evaluation inspections were conducted. The overall level of fugitive litter at the site was well with the acceptable range.
 - 20) Side slopes on the closed and active fill areas appeared to be in relatively good condition, with no areas of excessive erosion. Side slopes in several areas of the stormwater ditches showed evidence of significant erosion, which, if left unrepaired, could cause functional problems with the ditch system. Side slopes in the leachate pond indicated that significant quantities of soil had washed into the pond, reducing the maximum retention volume.
 - 21) With the exception of the previously noted siltation problems in the leachate pond, the leachate system appeared to be properly maintained and operated. Some discussion of problems with leachate flow meters was discussed with staff.
 - 22) An informal agreement apparently existed with the adjacent waste water treatment plant to take leachate from the facility, but no written agreement or contract was available for review during the time of the evaluation inspection.
 - 23) An informal plan was discussed, but no formal plan for handling a disruption of treatment plant service was available for review during the evaluation inspections. The informal plan depended on storage in the leachate pond until service could be restored. The effectiveness of this plan is limited by the requirement that the water elevation in the stormwater pond exceed the level in the leachate pond by a minimum of one foot, thereby limiting the maximum leachate storage capacity, particularly when the level in the stormwater pond is low.

- 24) Adequate records of leachate quantities pumped to the waste water treatment were on file at the site.
- 25) Adequate records of daily rainfall were on file at the site.
- 26) Adequate records of required gas monitoring were on file at the site.
- 27) See item # 20, above. Stormwater is currently pumped to the adjacent waste water treatment plant. The existing NPDES permit is not routinely used for off site discharges due to water quality problems encountered during the last major discharge events.
- 28) Equipment for operation of the landfill disposal areas (dozers, compactors, scraper pans, water tanker, tractor/mowers) appeared to be adequate, although little back up equipment was available with out pulling equipment from other areas at the landfill. Access to excavation equipment and road grading equipment appeared to be inadequate. Rental equipment is readily available on the local market, except for landfill compactors, which are seldom available on a rental basis. Total cost purchase agreements provide good protection against excessive down time associated with equipment repairs.
- 29) Two way radios are available on site for field communications, including emergency response and routine operational communications. A base station is monitored at the administrative offices and seven portable radios are available for use around the site. Radios are assigned to the Solid Waste Technical Coordinator, the Landfill Operations Supervisor, the two Chief Equipment Operators, and to the major operations locations at the site (the main Class I disposal area, the small vehicle disposal area, and the household hazardous waste storage facility).
- 30) Adequate personnel shelter and sanitary facilities exist on site. Presence of first aid equipment was not evaluated as part of the evaluation effort.
- 31) Portable pumps, equipment fire extinguishers, and the pan tanker with rear mounted fire hose, coupled with the response capabilities of the County fire department provide adequate fire fighting capabilities. Specific information on fire response procedures should be included in the operations manual.
- 32) Adequate litter control devices, including portable litter fencing was observed on the site. Rebar posts used for supporting fence fabric was too short in some cases, allowing the top few inches to droop, and affecting the fence stability in strong winds.
- 33) Adequate signage was observed on site.
- 34) All weather access roads appeared to be adequate to provide access in normal operating conditions. Temporary access roads leading to the main Class I disposal area appeared to be topped with soil which might present access problems in the event of significant rainfall events. Temporary access roads appeared to be constructed without drainage swales along the sides to convey stormwater away from the roadway, which might also present access problems in the event of significant rainfall events.
- 35) Inside perimeter roads, used for access to monitoring devices, stormwater controls, and allow access for inspections and fire control appeared to be, for the most part, in excellent condition.
- 36) Adequate operational records were on file at the site.
- 37) Annual estimates of remaining site life and capacity are presumably produced as part of the financial responsibility documentation filed annually with the FDEP. Records indicate that these requirements are current and acceptable to the FDEP. The entire site is essentially "constructed" due to the use of the existing slurry wall system. However, remaining capacity estimates associated with the recently submitted fill sequence plan appear to extend only part way to site build out.
- 38) The water tanker is utilized effectively for dust control on site. The tanker is one of the oldest pieces of equipment in the fleet and experienced significant down time during the times of the evaluation inspections.

Section 62-701.510 details the requirements for water quality and leachate monitoring at landfills in Florida. Most of the requirements for ground water and leachate monitoring at the Manatee County Solid Waste Management Facility are explicitly called out in the Specific Conditions attached to Operations Permit SO41-211176, and are discussed in detail as permit compliance issues in Section VII of this report.

Additional operational issues associated with waste tire management (Chapter 62-711, F.A.C.), and used oil collection (Chapter 62-710, F.A.C.), are included in the Specific Conditions, and are discussed in Section VII of this report, as well.

Aside from the regulatory issues addressed specifically in the operations permit, Chapter 62-701 contains several additional provisions which effect various aspects of landfill operations. Table 11, below, summarizes the balance of these regulatory issues in a fashion similar to that used in Table 10. Determination of compliance is limited to the observations made during the times of the evaluation inspection, and the degree of compliance reflects the opinion of the Evaluator. A series of "Compliance Notes" follows the table, which describe the various compliance issues observed during the evaluation inspections of the site.

Table 11:
Compliance with Additional Requirements of Chapter 62-701 Which Have Operational Impacts

Rule Requirement	Compliance Status of Site	Compliance Note Number
62-701.520(1)- Motor vehicles may be brought to a Class I landfill and stored temporarily in a separate area prior to recycling. If vehicles cannot be recycled, all fluids and batteries shall be removed from the vehicles and they shall be compacted to minimize voids before being placed in the Class I area.	Not applicable	1
62-701.520(2)- In the event of a natural disaster, during which large volumes of debris are accumulated (such as trees and buildings that have been destroyed) the debris may be transported to the an area remote from habitation and burned in accordance with Rule 62-256, F.A.C.	No applicable	2
62-701.520(4)- Asbestos may be disposed of at a Class I landfill, providing that all applicable federal regulations are complied with (40 CFR, part 61, sub-part H, and part 61.154), and the following requirements are met: (1) the waste generator shall make prior arrangement with the landfill operator before disposal of asbestos wastes, including notification of the quantity of waste and the delivery date, and (2) the landfill operator shall direct the hauler to a designated location whose location is recorded in accordance with 40 CFR, part 61.154.	In partial compliance	3
62-701.520(5)- Soil which has been contaminated with petroleum products or any other products which are not hazardous wastes may be disposed of in permitted, lined landfills. Petroleum contaminated soil which has been treated pursuant to Chapter 62-775, F.A.C., may be disposed of at permitted disposal facilities, and may, if it meets the requirements of 62-701.200(24), (37), and (38), F.A.C., be used as cover material at permitted landfills.	Not applicable	1
62-701.520(6)- Ash residue from the burning of solid waste may be disposed of in accordance with Chapter 62-702, F.A.C.	not applicable	1
62-701.630(4)- Every owner or operator of a landfill shall submit annual financial responsibility documentation, certified by a professional engineer which complies with all provisions in Chapter 62-701.630.	In compliance	4
62-701.730(2)- Construction and demolition debris may be disposed of at a permitted landfill. However, each must have a separate disposal area for C&D wastes.	Not in compliance	5
62-701.802- Land application of waste water treatment sludge requires a general permit for application of Grade II domestic waste water treatment sludge and must comply with all the provisions of Chapter 62-701.802. Other grades of sludge must be managed in accordance with Chapter 62-640, F.A.C.	Not applicable	6

Compliance Notes for Table 11

- 1) Motor vehicles, contaminated soil, and incinerator ash not accepted at the site.
- 2) No disaster clean up activities on going during the time of the evaluation inspections.
- 3) Asbestos disposal occurs in a designated area at the site. Haulers are required to comply with applicable regulations. No information regarding specific survey data for asbestos disposal site was available at the times of the evaluation inspections. Prior arrangements not always required. Approval process somewhat informal, manifests from hauler used to document loads delivered. 40 CFR, part 61.154 (included by reference in Chapter 62-701.520(4)) contains the federal requirements for active asbestos sites disposal sites, including provisions for: (1) posting of signs and sign size and content, (2) restrictions on visible emissions (dust), (3) cover requirements, (4) detailed record keeping requirements, including a record of the location, depth, area, and quantity of asbestos deposited (in cubic meters), (5) reconciliation of manifested quantities with delivered quantities for each shipment, (6) notification requirements (to EPA) for improperly packaged loads or unreconcilable discrepancies between manifested and delivered quantities, and (7) notification procedures (to EPA) when asbestos disposal sites are disturbed for construction or other reasons. All provisions of 40CFR, part 61.154 do not appear to be included in the asbestos procedures used on site. The text of this rule is included in Appendix I of this report.
- 4) Letter on file from the FDEP verifying approval of 1996 submittal. Next submittal due 9-1-97.
- 5) C&D wastes are comingled with municipal solid waste at both Class I disposal areas. No separate C&D disposal area.
- 6) Waste water treatment sludge, from County WWTP only, disposed of as a solid waste. However, no trace metal analyses or paint filter tests are required to verify the sludge classification or compliance with solid waste disposal requirements (free liquids, hazardous waste).

VI: Permit Compliance

At the time of this evaluation report, the permits governing the operations at the Manatee County Solid Waste Management Facility appeared to be limited to the operating permit from FDEP, the NPDES permit, originally issued by the United States Environmental Protection Agency (USEPA) and currently administered by the FDEP, and two permits issued by the Southwest Florida Water Management District (SWFWMD). One of the permits issued by SWFWMD (403143) is for management of surface water (stormwater) whose requirements and responsibilities have been incorporated into the FDEP operations permit by cooperative agreement between the water management district and FDEP(?), and the other is a permit for construction and operation of a wetlands mitigation project associated with the construction of the slurry walls in 1988. Table 12, below, summarizes basic information associated with these permits:

Table 12:
Listing of Active Site Permits

Permitted Activities	Issuing Agency	Permit Number	Issuance Date	Expiration Date
Landfill Operations	FDEP	SO41-211176	4/22/93	4/1/98 ₍₁₎
Discharge of Stormwater (NPDES)	USEPA	FL0038881	2/11/93	2/28/98 ₍₂₎
Management of Stormwater	SWFWMD	403143	7/11/88	7/11/91 ₍₃₎
Southeast Wet Weather Management System	SWFWMD	408992.00	8/27/91	NA ₍₄₎

- (1) permit renewal process underway
- (2) renewal application required 180 days prior to expiration date (8/28/97)
- (3) permit provisions and requirements incorporated into FDEP permit SO41-211176 (?)
- (4) permit modified by letter, 3/25/92, 6/24/92, and 3/25/95, no expiration date listed in permit

Previous FDEP permits associated with operations and closure activities (SC41-095667, SC41-095658, SO41-118353) have expired, or are no longer in force.

FDEP Operations Permit SO41-211176

In evaluating compliance issues associated with FDEP operations permit SO41-211176, the primary focus was placed on the Specific Conditions, contained therein. General Conditions typically (and in this case) deal primarily with limits to permit authorization, regulatory access to the site and site records, and response to Agency requests for information.

Of particular note in the **General Conditions** are those provisions which specify the following:

1. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of the permit may constitute grounds for revocation or enforcement actions by the FDEP. (General Condition #2)
2. The permittee shall properly operate and maintain the facility and systems of treatment and control that are installed and used by the permittee to achieve compliance with the conditions of this permit and applicable Rules. (General Condition #6)
3. The permittee agrees to allow authorized FDEP personnel access to the site and site records kept under the conditions of the permit for inspection purposes. FDEP representatives must present credentials or other documents, and make their appearance at "reasonable times" (based on the nature of the concern being investigated). (General Condition #7)
4. If, for any reason, the permittee does not comply with or becomes unable to comply with any condition or limitation specified in the permit, the permittee shall **immediately** notify the FDEP with a description of and cause of the noncompliance, the anticipated duration of noncompliance, and the steps being taken fix the problem. (General Condition #8)
5. All records, notes, monitoring data, and other information related to the construction or operation of the site which have been submitted to the FDEP may be used as evidence in any potential enforcement actions. (General Condition #9)
6. The permittee agrees to comply with changes to the FDEP rules and Florida Statutes after a reasonable time for compliance, however, the permittee does not waive any other rights granted by Statute or Rule. (General Condition #9)
7. A copy of the permit (including all attachments) shall be maintained at the site of the permitted activity. (General Condition #12)
8. The permittee shall hold at the facility (or other location designated by permit) records of: all monitoring information required by the permit (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation); all reports required by permit; and all data used to complete the application of the permit. Such records shall be retained at least three years from the date of the sample, measurement, report, or application. Monitoring records shall include: the date, place, and time of sampling or measurement; the person responsible for performing the sampling or measurements; the dates analyses were performed; the person responsible for performing the analyses; the analytical techniques or methods used; and the results of such analyses. (General Condition #14)
9. The permittee shall furnish within a reasonable time any information required by law requested by the FDEP which is needed to determine permit compliance. If the permittee becomes aware that relevant facts were not submitted, or were incorrect in the permit application, or any report to the FDEP, such facts or information shall be corrected promptly. (General Condition #15)

Since most of these conditions deal with actions to be taken by the permittee in response to specific occurrences, compliance was impossible to determine as part of this evaluation process. The conditions called out above are intended to reiterate the permittee's extensive responsibilities with respect to notification, record keeping, site maintenance, and response to FDEP inquiries. **It should be noted, however, that copies of applicable permits were maintained on site, but all permit applications,**

drawings, plans, and other attachments were not. While this may appear to be a minor issue in the context of permit compliance, a complete set of permit documents provides an invaluable tool for site operators to use in making sure site construction and operation proceeds as permitted, and that all applicable notification requirements can be met (see General Conditions, #'s 2,6,8,12,14, and 15, and items 1,2,4,7,8, and 9, above).

The following section of this evaluation consists of an item by item tabulation of Specific Conditions from FDEP permit # SO41-211176. The contents of the permit conditions are summarized. Each permit condition summary is immediately followed by an evaluation of the site compliance status. The evaluation of compliance status appears in bold for purposes of clarity. Compliance status for permit compliance issues which were dealt with in detail in Section V of this report, Compliance with Operational Requirements of Chapter 62-701, F.A.C. (and other relevant regulations), are referred back to that section. Determination of compliance is limited to the observations made during the times of the evaluation inspection, and the degree of compliance reflects the opinion of the Evaluator.

Permit Conditions and Compliance Status FDEP Permit SO41-211176

Specific Condition # 1: This condition specifies that the site includes operation of a Class I landfill, waste tire processing facility, and used oil collection center, and shall be operated in accordance with Chapters 62-4, 62-25, 62-522, 62-550, 62-701, 62-710, and 62-711, F.A.C. This condition also references information submitted by Manatee County in support of the permit application, along with subsequent modifications for relocation of the tire processing facility and improvements to the yard trash mulching area. The revised ground water monitoring plan submitted by Ardaman and Associates, dated January 11, 1990, is also specifically referenced. Long term care and maintenance of the previously closed areas is also included in the discussion of site activities. It goes on to state that activities not previously approved in this permit will require either separate permits or modifications to this permit.

Activities associated with the household hazardous waste storage facility, and the white goods storage and processing area are not specifically listed as approved site activities. The discussion of the used oil collection activities falls short of authorizing the household hazardous waste facility, although the FDEP is certainly aware of such activities at the site.

Specific Condition # 2: This condition specifies that cover be applied in accordance with Chapter 62-701.500(7), including the use of alternative daily cover materials as approved by the FDEP. Tarpaulins and shredded tires (in conformance with the requirements of Chapter 62-711, F.A.C.) are specifically mentioned as approved alternatives to soil cover. Use of shredded tires is limited to areas within the bermed working area. The installation of "interceptor berms" at the active working area is required to prevent leachate run off from leaving the working face and discharging into the stormwater management system. Run off from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

For additional discussion of initial (daily) and intermediate cover issues, see Table 10, and associated compliance notes 15 and 16. Use of the alternative daily cover material, designated "formula 480", appeared to have efficacy problems during the observed applications at the times of the evaluation inspections. As noted in Section IV of this report (Main Class I Disposal Area), the large area and uneven nature of the active face appeared have a deleterious effect on the application of formula 480, and also made spreading uniform layers of soil very difficult.

The spray pattern from the formula 480 applicator appeared to be non-uniform, and at times intermittent, which reduced its ability to effectively cover the refuse. On the two days when formula 480 application was observed, the volume needed exceeded the capacity of the holding tank on the applicator, and cover application was terminated before the entire area could be effectively covered.

The effectiveness of the formula 480 appeared to be better on March 5th than it was on March 3rd, presumably due to the more uniform and even refuse surface encountered on the 5th. The uneven, non-uniform surface experienced on the 3rd resulted in very spotty and incomplete refuse coverage.

It was observed on March 8th that the soil/yard waste mixture had been used for cover at the end of the preceding day (use of this type of mixture was previously approved by the FDEP). The cover was uneven and incomplete, with significant areas of refuse still showing.

During the period of the evaluation inspection, the daily cover application could only be characterized as incomplete. Although the operators appeared interested in applying adequate daily cover, difficulties with the uniformity of the compacted face, problems with the formula 480 application, and the insufficient amount of cover material delivered to the active face resulted in less than optimum cover performance.

The floor of the dumping area, where the delivering vehicles maneuvered prior to dumping appeared to be rough and lacking of sufficient intermediate cover. There was a significant amount of refuse showing through the soil cover ("flagging") and the over all condition of the surface indicated a need for additional cover maintenance. Some of the refuse showing was surely wind blown litter from the disposal area, but much of it appeared to result from cover erosion and infiltration into the underlying refuse layer.

Interceptor berms were in place and functioning, and intermediate cover areas outside the dumping area discussed above were in good shape, with no refuse showing.

Specific Condition # 3: This condition specifies that the Class I disposal areas be operated such that an inward gradient exists between ground water outside the slurry wall and leachate contained within the slurry wall (ground water elevations outside to exceed levels inside).

Based on records of routine measurements taken monthly, this requirement is being consistently met. The lack of formal contingency plans for handling leachate treatment disruptions and excessive stormwater amounts could jeopardize the ability to maintain compliance in an extreme storm event or circumstances where the waste water treatment plant was forced to disrupt services (see Table 10, compliance notes 23 and 27).

Specific Condition # 4: This condition prohibits spray irrigation or recirculation of leachate without prior approval from the FDEP.

No recirculation or spray irrigation of leachate was observed being conducted at the site. The site is in compliance with this provision.

Specific Condition # 5: Deleted July 3, 1997.

Specific Condition # 6: This condition specifies that the prohibitions of Chapter 62-701.300 and 62-701.400, F.A.C., shall not be violated.

No prohibited materials (see Tables 7 and 8) were observed being disposed of at the site during the times of the evaluation inspection, except waste tires, which consistently showed up in the active face area at the times during and after daily cover was applied. The lack of a spotter on foot at the Class I active face and the cursory nature of the random load inspection program make effectively detecting unauthorized waste somewhat problematic (see Table 10, compliance notes 2, 8, and 9).

The construction prohibitions included in Chapter 62-701.400 are assumed to be met, pursuant to the issuance of the operating permit, although the site is constructed using an approved alternative procedure.

Specific Condition # 7: This condition limits the storage capacity of the waste tire storage area to 560 tons of tires (approximately 56,000 passenger car tires), and requires :

- Submittal of quarterly reports summarizing facility operations by Jan. 20th, April 20th, July 20th, and Oct. 20th of each year.
- Submittal of an annual fire safety survey report with the April 20th quarterly report.
- Stormwater shall be managed as required in Chapter 62-711.540(3)(a). Stormwater to be diverted away from tire piles.
- A copy of the facility's emergency preparedness manual shall be kept on site, and another copy kept off site.
- Compliance with financial responsibility requirements.
- Site shall be closed in accordance with the requirement of Chapter 62-711, F.A.C., and the FDEP shall be notified at least 90 days prior to the date when tire storage and processing at the site will cease.

Quarterly reports are being submitted on schedule with other required site operating reports. No fire safety surveys are being conducted or submitted. The grading of the storage facility does not seem to direct stormwater flows away from tire piles, in fact, the floor appears to be relatively flat, allowing stormwater to pond in some areas. The entranceways to the storage sites are cut through the berms, creating the potential for stormwater or water from fire fighting activities to leave the storage areas. This a particular problem for water from fire fighting activities since Chapter 62-711.540(3)(d) requires that adequate protection be provided to prevent discharge of fire fighting water into water bodies. Tires were observed piled against the berm, with some tires spilled outside the containment area. Operators appeared unaware of storage restrictions with respect to maximum pile dimensions and fire lane requirements. No emergency preparedness manual with specific provisions for the waste tire site were available for review. The site was in full compliance with financial responsibility requirements.

Specific Condition # 8: This provision requires the presence of a trained operator, a spotter at each active face, and a random load inspection program in conformance with Chapter 62-701.500(6).

The site is in compliance with trained operator requirements (see Table 10, compliance note # 1).

A spotter on foot was deployed at the small vehicle dumping area, and the spotter at the main Class I active face was operating the Michigan loader with the grapple rake attachment (see Table 10, compliance note # 2).

The random load inspection program appears to fall short of conducting a "detailed" examination of refuse loads, and appears to lack randomness (see Table 10, compliance note #'s 8, 9, 10, and 11).

Specific Condition # 9: This condition requires the owner or operator to have an operational plan that provides detailed written instructions for the daily operation of the landfill. This plans is to be kept at or near the landfill facility, and available to landfill operators. The plan is to include(at a minimum) procedures for all items listed in Chapter 62-701.500(3), and a schedule for routine maintenance of the leachate collection system. Maintenance of operating records is also required in the condition, as is submittal of fill sequence plan, and assurance that an inward gradient is continuously maintained within the landfill disposal areas.

The operational plan was in draft form, incomplete in content, and not readily available to landfill operators(see Table 10, compliance note #3). There was no schedule for routine maintenance of the leachate collection system, although the draft operations plans had a schedule of system inspections. The detailed fill sequence plan was submitted to FDEP in January, 1997, and had not been approved at the time of the evaluation. This plan describes fill operations for a period of seven years, including development of Stage I and part of Stage III. It does not cover the entire life of the site. No disposal operations in Stage II or Stage III were on going during the period of the evaluation.

Maintenance of operating records is adequate and in compliance with this requirement (see Table 10, compliance note #'s 5, 24, 25, and 26).

Records indicate that the required inward gradient has been maintained by operations to date.

Specific Condition # 10: This condition requires all loads to be weighed, with appropriate tonnage record kept. Further it requires that the quantities of those wastes listed in Chapter 62-701.500(4)(b) be estimated. Waste reports are to be compiled monthly and submitted quarterly. A recent letter from Danielle Nichols, FDEP Southwest District, modifies this condition to require the site operator to keep waste quantity reports on file at the site, available for inspection.

All loads are weighed, and adequate tonnage records are kept. Apparently, submittal of tonnage and other operations data was being performed monthly, in excess of the permit requirement. However, estimates of the quantities of wastes listed in Chapter 62-701.500(4)(b), were apparently not included with waste tonnage reports (see Table 10, compliance note # 6). Categories of waste reported reflected the actual tonnage data collected at the scale house, which is more detailed than the regulatory requirement.

Specific Condition # 11: This condition requires leachate level monitoring, leachate sampling and analysis, reporting leachate results to the FDEP, and a contingency plan for handling problems with leachate collection, removal, or treatment. Leachate generation reports shall be compiled monthly and submitted to the FDEP as requested. This condition also requires that the entire leachate collection system be video inspected, pressure tested, and cleaned out (if necessary), 180 days prior to permit expiration.

Leachate level monitoring, reporting, etc., is being conducted in compliance with this requirement. No formal contingency plan is in place to guide activities in the event of system disruptions (see Table 10, compliance note # 23). The requirement for the video inspection, pressure testing, and clean out of the leachate collection system must be met within 180 days of permit expiration, or 10/1/97. Activities associated with these activities should be getting under way in the near future.

Specific Condition # 12: This condition deals with site improvements to Stage III.

These activities have been completed in compliance with the permit requirements.

Specific Condition # 13: This condition requires that the operating authority be responsible for control of odors and fugitive particulates (dust) arising from the operation. Such control is to minimize nuisance conditions on adjoining properties.

No off site odors or dust of a nuisance nature were observed during the periods of the evaluation inspections. Adequate dust control activities were observed on going at the site, and landfill gas odors were barely detectable off site.

Specific Condition # 14: This condition requires that the landfill gas monitoring requirements of Chapter 62-701.400(10) be met. It specifies that gas monitoring wells (GMW's) 1-18 and gas monitoring points (GMP's) 1-8, be monitored to meet this requirement. Gas monitoring data is to be submitted quarterly, on April 14th, July 15th, October 15th, and January 15th. Further, it requires that a remediation plan be submitted in response to gas levels in excess of 25% of the LEL inside structures, or 100% of the LEL at the property boundary.

Gas level measurements are being taken and reported in compliance with this requirement. In fact, the reports were being submitted monthly, with the operations data, in excess of this requirement. No instances of gas level exceedances were discovered during the evaluation. No map of the locations of the GMW's or GMP's was available for review during the evaluation process.

Specific Condition #15: This condition prohibits the operator from accepting hazardous wastes or hazardous substance for disposal at the site.

No hazardous wastes or hazardous substances (except asbestos) are knowingly accepted for disposal at the site. Signs at the entrance inform site users about the restriction prohibiting such wastes. However, the lack of a spotter on foot at the Class I active face and the cursory nature of the random load inspection program make effectively detecting unauthorized waste somewhat problematic (see Table 10, compliance notes 2, 8, and 9).

Specific Condition #16: This condition requires that the disposal of "special" wastes be in accordance with Chapter 62-701.300 and 62-701.520, and other applicable FDEP rules.

The site is generally in compliance with the regulatory provisions specified in the condition, although some of the procedural record keeping requirements associated with asbestos disposal require modification. 40 CFR, part 61.154 includes a requirement that warning signs be placed at the entrance and at intervals of 100 feet along the property line or along the perimeter of the area where asbestos containing material is being placed. With respect to freon containing devices, 40 CFR part 156(f)(2) requires specific notification procedures regarding freon containing devices that have been processed for the removal of residual freon. This notification includes a signed statement from the person from whom the load of appliances is received which states that all freon that had not previously leaked out has been removed according to federal regulations, giving the name of the person who recovered the freon, and the date the freon was recovered, or a contract that states freon will be removed prior to delivery. No evidence of such notification and/or contracts was available during the evaluation review. Recovery equipment and personnel must each be certified to recover freon from appliances. Since the County staff performing the freon removal activities do not work for the Solid Waste Section, the evaluation was unable to verify that these personnel or their equipment possess the proper certification in conformance with 40 CFR part 82.

Special Condition # 17: This condition provides requirements for the yard waste mulching area:

- all yard trash shall be processed, and recycled or disposed of within twelve months
- dust and fire control shall be provided
- all waste other than yard trash and incidental amounts of other wood wastes, stored outside in containers, shall be covered with waterproof covers
- a report summarizing the facility operations shall be submitted to the FDEP, either quarterly or annually.

The yard waste site appeared to be in compliance with these provisions at the times of the evaluation inspections. The stock pile of shredded yard waste was rather large, and exhibited evidence of active composting going on in the piles, but waste was being processed and moved off site. No excessive quantities of dust were encountered during the period of the evaluation inspections. Yard waste quantities are reported to the FDEP along with other operations and tonnage data for the site.

Specific Condition #18: This condition requires that the permittee maintain a program which prohibits the disposal of bulk industrial wastes which operational personnel reasonably believe to contain hazardous waste without appropriate chemical analysis showing the waste to be non-hazardous. Records of such analysis to be kept on site.

There was ample evidence that such a program existed, in the form of analytical results, but no formal procedure for screening and approval of this type was available for review. The procedures were somewhat informal and apparently unwritten. A formal pre-approval program, including a waste description form which details the conditions for acceptability and final disposition can be very useful for tracking sources and disposal of bulk industrial wastes. Such forms, filled out as part of the approval process, can be provided to scale house and operational personnel to indicate prior approval and define disposal restrictions.

Specific Condition # 19: This condition prohibits burning solid waste except clean wood waste in an air curtain incinerator.

No burning was observed during the evaluation inspections, and no air curtain incinerator was present at the site. The site was in compliance with this requirement.

Specific Condition # 20: This condition requires that a closure permit be required 90 days prior to final acceptance of waste and that final cover be applied over each completed area within 180 days of completion.

Closure is being accomplished in accordance with the requirements of this condition and the closure plan for the site.

Specific Condition # 21: This condition requires that all solid waste, recovered materials, or residues handled at the site shall be stored so as not to cause a fire hazard or sanitary nuisance, and shall comply with applicable regulations.

Although there is some potential for fire hazard resulting from the large size of the shredded yard waste stored in a large stockpile at the yard waste mulching area, the site appears to be in total compliance with this requirement. Care should be exercised in monitoring the amount of shredded yard waste stored on site to prevent the pile from getting large enough to foster a fire from spontaneous combustion due to heat build up from the decomposition process.

Specific Condition #22: This condition specifies that the existing stormwater system continue to operate and be maintained to operate as designed and approved. It further states that any significant modification to the approved system must be resubmitted to the FDEP for approval prior to implementation.

As described previously in this report, and noted repeatedly in the inspection record from FDEP, the site continues to experience problems with stormwater system maintenance. Although the current state of the system does not prevent it from operating as designed, the lack of routine, scheduled maintenance plans for the stormwater system will certainly lead to problems in the future (as it has in the past). Observations during the evaluation inspections indicated that stormwater flows periodically discharge into the leachate pond, and evidence of erosion exists at several locations in the stormwater ditch system (see Table 10, compliance note # 20, and Section IV, Closed Landfill Areas). The current procedure of discharging stormwater to the adjacent waste water treatment plant may constitute a significant modification to the approved stormwater design, which was apparently designed to discharge excess stormwater through NPDES out fall 001.

Specific Condition # 23: This condition requires the owner or operator to control mosquitoes and rodents at the site, so as to protect public health and welfare.

The County mosquito control office is periodically called upon to spray the site for mosquitoes, particularly the waste tire storage area. No evidence of rodents was observed during the evaluation inspections. The site appears to be in compliance with this requirement.

Specific Condition # 24: This condition requires the permittee to properly maintain the site, including erosion control, maintenance of grass cover, prevention of ponding, leachate control system maintenance, and gas venting system repairs.

Aside from the previous comments in Condition 22, above (and elsewhere in this report), regarding stormwater system maintenance, the site appears to be reasonably well maintained, particularly when the existing staffing levels are considered. Evidence in the available files documented repairs to leachate flow meters, inspections of site facilities, and purchases of sod, litter fencing, and other maintenance materials. Conditions observed at the site obviously indicated a significant amount of maintenance work which had occurred in and around the leachate pond and the stormwater system.

Although no formal written maintenance procedures were being used, the operations personnel were obviously cognizant of their responsibility to maintain the site. Mowing and litter collection activities were observed on all inspection visits.

Maintenance activities are hampered by the lack of an available motor grader or excavator (back hoe) and the current high level of staff utilization for disposal related (rather than maintenance related) activities. Much of the stormwater system maintenance, for instance, appears to be accomplished in response to major problems which occur during the rainy season, rather than scheduled a little bit at a time during the dry season. While maintenance levels and effectiveness could be improved, the present conditions at the site are adequate to insure routine operations.

Specific Condition # 25: This condition specifies that the used oil storage area and the fuel storage area (fuel island) comply with applicable state and federal regulations.

The used oil storage area appears to be designed and operated in accordance with Chapter 62-710, F.A.C., and 40 CFR 280 and 281.

The fuel storage tanks are of an older glass lined tank design, with a cathodic protection system, which would not meet present day requirements for underground fuel storage tanks. No monitoring wells for detecting product leaks from the fuel tanks were observed during the evaluation, although subsequent discussions with County staff indicate that wells are present. The leak checking and tank registration records are maintained by another County department. Records regarding the status of the fuel storage system were therefore not available for evaluation during the evaluation process, and a determination as to the compliance of this component of the system could not be made.

Specific Condition # 26: This condition requires notification of the FDEP in the event of damage to any portion of the landfill regulated by permit or failure of any portion of the landfill systems. Such notification is to be made "immediately", with written notification to follow within 7 days following the occurrence.

The site appears to be in compliance with this requirement, although it is uncertain whether notification is made as soon as possible in every case. The impression given when talking to site staff implies that written notification may be the first contact made to FDEP in response site problems. No records of telephone conversations with FDEP were made available during the evaluation process.

Specific Condition # 27: This condition requires a trained supervisor or foreman to be responsible for maintaining the facility in an orderly, safe, and sanitary manner. It further requires that sufficient personnel be employed to operate the facility in compliance with the permit.

The requirement for a trained supervisor is met at the site. The Solid Waste Technical Coordinator and the Solid Waste Manager are responsible for maintaining and operating the facility in accordance with regulatory and permit requirements.

The lack of a spotter (on foot) at the main Class I disposal area and the high level of utilization of the existing staff indicate that staffing levels (given the current operating structure) may not be entirely adequate to insure routine maintenance capabilities at the site. This assertion is supported by the repeated instances where regulatory inspections and staff comments cite problems with erosion control, litter control, sediments in ditches, spotters at all active faces, and tires being disposed of at the active face. The most recent inspection, which contained no noted deficiencies, is attributable to the high level of operations staff concern with improving conditions at the site, and recognizes the real impact the current staff's activities has made toward both correcting some past problems, and improving relations with the regulatory agency.

In evaluating staffing levels, it was hard to see where additional capacity for routine maintenance activities and spotter capabilities would come from. With the normal daily complement of 6 to seven

equipment operators and one landfill attendant, normal daily assignments left little manpower to devote to items such as routine ditch maintenance, cover excavation, sod repairs, or erosion control. Normal assignments had two compactors, one dozer, and the Michigan loader (four man-days) at the main Class I disposal area; one dozer/compactor and one spotter (two man-days) at the small vehicle dumping area; one operator (one man-day) running the water tanker and a scraper pan; one operator (one man-day) operating either a scraper pan for cover or a dozer mixing soil with shredded yard waste; and one person (one man-day) running the mower, for a total typical daily requirement of nine man days. Obviously, some of these operators are doing double duty under the current assignment system, since staffing levels provide about eight permanent staff members to accomplish these tasks. Even when the Landfill Operations Supervisor is included as a part time equipment operator, it is obvious that any tasks other than the normal daily disposal operations (plus mowing) must draw staff away from their normal duties, which, in turn, impacts the ability to perform those tasks.

Staffing levels should be evaluated in two ways by asking two basic questions.

- Is the current staffing level adequate?, and
- Can the present staff be allocated differently to accomplish more?

As discussed previously, a reasonable argument can be made that, given the current operations structure, the answer to the first question might be "no". However, changing the operations structure might help the existing staff work more effectively. For the purposes of this compliance discussion, all in all the site in minimal compliance with this requirement (how else could it receive an inspection report with no deficiencies?). However, a string of bad weather or personnel experiencing extended absences could swing this determination quickly in the other direction.

The issue of staffing levels will be discussed in more detail in the following section of this report (Section VII, Recommendations for Enhancement of Operational Effectiveness and Level of Compliance).

Specific Condition # 28: This condition designates the 27 monitoring wells approved in the site ground water monitoring plan, defines the well type (detection, compliance, or background), defines the location of the wells with an attached map, and specifies that all wells be clearly labeled and easily visible at all times. It further requires that a surveyed map showing the well and bench mark locations, along with vertical and horizontal control data (lat/long, UTM coordinates, and top of casing elevations NGVD) be submitted within 90 days of the issuance of the permit.

The 27 wells designated in this specific condition are all in place and their protective lock boxes are painted yellow (or silver and yellow) to be easily visible at all times. Some of the well designation numbers were difficult to read, or hand written directly on the well casings in indelible ink. Some of the protective lock boxes around the well casings have broken hinges and have become detached from the lock box. None of the wells observed was locked at the time of the evaluation inspection. This condition is complied with, although a more permanent labeling system for the wells with hand written labels would provide a higher level of compliance with the "clearly labeled" requirement. The well map, dated 7/19/93, including all control data, was available at the site.

Specific Condition #29: This condition requires that piezometers PZ-1 through PZ-17 and all surficial aquifer monitoring wells listed in condition # 28 be monitored monthly for water levels to confirm an inward gradient across the slurry wall. This data is to be submitted monthly to the FDEP. In an outward gradient exists in any month, a plan of correction is to be included with the data.

Records researched at random from the files available on site indicate that this condition is routinely being met, with a consistent inward gradient documented. Occasional difficulties with access to some wells is documented, and at least one piezometer has been damaged and repaired, but no disruption of the monitoring program or inward gradient was detected. The biannual ground water monitoring

plan evaluation produced by PSI in 1996 references one instance when piezometric surface data was omitted from the required sampling.

Specific Condition # 30: This condition specifies that all field and laboratory work done in connection with the routine ground water monitoring be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan (QAP) approved by the FDEP. The QAP must specifically address the sampling and analytical work this required by permit. Documentation of the approved QAP is to be submitted annually with the first ground water monitoring report of each year, to include the signature page and table of contents of the approved plan.

The laboratory performing the analytical work for the landfill (P.E. LaMoreaux & Associates, inc., or PELA) ostensibly has an approved QAP, but the approval for the one on file at the landfill expired on August 5, 1995. No additional documentation regarding subsequent renewal of FDEP approval was available for review at the time of the evaluation. The expired QAP appeared to contain specific reference to all sampling and analytical work performed in connection with the ground water monitoring program. Documentation of the updated QAP was not included in the first ground water monitoring report of the year for at least 1995 and 1996.

Specific Condition # 31: This condition specifies the sampling frequency and parameter list for leachate analysis to be performed at the site. Samples are to be taken twice per year, with the one of the sampling events to include an expanded parameter list as required in Chapter 62-701.510.

Based on random selections of past monitoring reports, this condition appears to be consistently complied with, although the leachate monitoring report for the second sampling of 1996 could not be located in the files made available during the evaluation process. Interviews with FDEP staff indicated that, to their knowledge, all analytical submittals were up to date.

Specific Condition # 32, 33, and 34: These conditions deal with requirements for new well construction, completion of construction, and abandonment of existing wells which are not part of the approved monitoring system.

One piezometer (PZ-4, replaced with PZ-4A) had been replaced, according to a conversation with Ben Alex. No well completion report was made available for review during the evaluation inspections (it's existence was verbally confirmed). Apparently PZ-4 was not formally abandoned in accordance with Specific Condition # 34.

Specific Condition # 35: This condition specifies the sampling frequency and parameter list for ground water analysis to be performed at the site. Samples are to be taken twice per year, from the wells specified in Specific Condition # 28. Sampling parameters are listed pursuant to Chapter 62-701.510, F.A.C.

This condition is consistently being met, although, on one occasion the wells were sampled on different days with the last increment occurring more than 30 days after the first, and the data was initially submitted in incomplete form. A follow up submittal included the omitted data. Several cases of omitted data are referenced in the biannual ground water monitoring plan evaluation produced by PSI in 1996 (referring to data collection in 1994 and 1995).

Specific Condition # 36: This condition reiterates the provisions of Chapter 62-701.510(7), which provide for resampling wells which show contaminant levels above background levels or above maximum contamination limits (MCL's) from FDEP ground water standards. This provision states that resampling must occur within 15 days after the data is received, to verify the original analysis. Lacking any resampling data, the FDEP will assume that the original results are valid. Confirmed exceedances trigger assessment monitoring (which could mean monthly sampling for a broader range of parameters, depending on the contaminants detected). The assessment monitoring procedures include resampling within 90 days, preparation of a contamination assessment plan, and possible corrective action requirements.

Several monitoring reports included tables of wells which exceeded applicable MCL's, mostly for indicator parameter like pH, color, TDS, and iron. On at least one occasion, arsenic was reported above the applicable MCL. On another occasion, antimony was reported above the MCL. None of these instances were followed by resampling or assessment monitoring, and no documentation was available which relieved the County from taking such action. Apparently, the FDEP was not overly concerned due to the nature of the contaminants detected and the lack of a reproducible pattern to the results. Although these exceedances are attributed to normal background variations in the biannual ground water monitoring plan evaluation produced by PSI in 1996, the permit and the Rule would require assessment monitoring, nonetheless. Lacking documentation from FDEP stating that assessment monitoring was not called for in these instances, it appears that this condition is not being met.

Specific Condition # 37: This condition requires notification to FDEP if any monitoring wells become damaged or inoperable. A written report is to be made within seven days, which details the problem and remedial measures taken. Replacement well design, installation, or repairs shall be approved by FDEP. Replacement of monitoring wells requires a permit modification, replacement of piezometers does not.

No evidence of monitoring wells being damaged or replaced was detected during the evaluation process.

Specific Condition # 38: This condition specifies that all field testing, sample collection and preservation, and laboratory testing, including quality control procedures, shall be in accordance with method approved by the FDEP.

It is assumed that, as a certified laboratory for the analyses in question, PELA is utilizing appropriate procedures as described in this condition. No detailed evaluation of these criteria was undertaken as part of this evaluation process. It is recommended that the permittee verify compliance with this condition, in writing, with PELA, at the same time verification of a current QAP is sought. It should be noted that, other than sample duplicate results, no quality assurance (QA) information is being transmitted to the landfill staff with the laboratory results. Such QA data is very helpful in evaluating the performance of a laboratory, and it provides an essential statistical context in which to interpret monitoring data. This type of data includes results of sample duplicates and spikes, along with spike recoveries and control charts. Such data can be used to determine the level of uncertainty associated with the laboratory's reported results.

Specific Condition # 39: This condition requires that ground water monitoring results be reported on form 62-1.216(2), and specifies that reports be submitted by July 15th (for January -June sampling) and January 15th (for the July-December sampling).

Although all reports appear to be submitted eventually (and generally not too far from the required dates), the submittal dates are not being consistently met. In one case (first half of 1995) the July 15th report was not submitted in its entirety until November 14th. In addition, the annual piezometric surface maps, required by Chapter 62-701.510(9)(a)(9), are not being routinely submitted (only one such map was in the file made available for review during the evaluation process).

Specific condition # 40: This condition requires that the permittee insure that G-2 ground water not be violated outside the zone of discharge (ZOD). The ZOD for the site is defined as the property line or 100 feet from the waste management area, whichever is less.

All of the monitoring wells subject to the discussion for Specific Condition 36 are located outside the slurry wall and reflect potential violations of G-2 ground water standards outside the ZOD. Lacking documentation from FDEP to the contrary, it appears that this condition is not being met. Some relief based on site specific background conditions should be sought to remedy this problem.

Specific Condition # 41: This condition reiterates the requirement for submittal of an assessment of the ground water monitoring plan from Chapter 62-701.510(9)(b), F.A.C. This report, sealed by a P.G. or P.E., shall contain an assessment of the effectiveness of the monitoring plan, and the landfill design as it relates to ground water contamination. Specific informational requirements are contained in the Rule. This plan shall be submitted every two years, and 90 days prior to the permit expiration.

Compliance with this condition is current, with the last report prepared by PSI on October 10, 1996. According to the permit condition, the next submittal is due 90 days prior to the expiration of the current permit, or 1/1/98. It is unclear whether renewal of the operating permit extends this deadline out to the normal two year interval.

Specific Condition #42: This condition reiterates the financial responsibility requirements contained in Chapter 62-701.630, F.A.C. Required documentation to be submitted annually to FDEP.

This condition is being met. A letter on file from Susan Pelz (FDEP, Southwest District) dated January 27, 1997 confirms approval of the 1996 submittal and specifies the next submittal (for 1997) to be due on September 1, 1997.

Specific Condition # 43: This condition requires applicable permit and other documents to be signed and sealed by a Professional Engineer.

It appears that this condition is being consistently met.

Specific Condition # 44: This condition requires submittal of a permit renewal application 90 days prior to the permit expiration.

HDR engineering is currently working on preparing the permit renewal in anticipation of meeting this deadline.

Specific Condition # 45: This condition requires the permittee to be aware of and to operate under the General Conditions included in the permit.

It appears that the permittee is, for the most part, aware of and operating under the provisions included in the General Conditions (note the discussion of General Conditions at the beginning of this section of the evaluation report, page 32).

Specific Condition 46: This condition requires compliance with the previous Specific and General Conditions, and states that failure to meet various deadlines for submittals contained therein constitutes a violation of these conditions.

Please note the discussion of General and Specific Conditions, above.

Specific Condition # 46: This condition was deleted July 3rd, 1995.

Attachment 1 to Permit SO41-2111676: This attachment provides a useful summary of required submittals and associated deadlines, contained elsewhere in the permit.

USEPA/FDEP NPDES Permit FL0038881

As mentioned previously, the permit originally issued for stormwater discharges under the National Pollution Discharge Elimination System (NPDES) by the US Environmental Protection Agency (USEPA) is now administered by the FDEP. This change, which occurred on May 1, 1995, should have been accompanied by a letter from FDEP concerning the change in administering authority and additional fees to be assessed for continuation of the permit. This information regarding the change over was not available in the files

examined as part of this evaluation process. For this reason, compliance evaluation for the site NPDES permit is based on evaluation of the originally issued permit from USEPA. Absent a companion FDEP permit, the conditions should have remained the same.

The discussion of compliance issues associated with this permit is tempered to a great extent by the fact that the site operators are currently operating the site so as to avoid discharges of stormwater to off site surface waters through the outfalls defined in the permit. This strategy is in place due to conditions related to the most recent actual discharge events, on August 3, 1995, August 26, 1995 and September 1, 1995.

Sampling results from these three discharge events detected several parameters at concentrations which exceeded the allowable limits specified in the permit. Parameters whose value exceeded permit limits included dissolved oxygen, iron, zinc, copper, and the biotoxicity test involving *Ceriodaphnia dubia* (daphid). Based on these results, discharges through the defined outfalls have been prevented, primarily by pumping stormwater to the adjacent waste water treatment plant.

Although the existing outfalls still exist, the staff has stated that further discharges to surface water are not anticipated for the site, at this time. While this may be possible in the absence of a major storm event, the occurrence of a hurricane or other major source of stormwater may make avoiding such discharges impossible.

Rather than conduct a detailed reiteration of the requirements of the existing permit, the evaluation in this evaluation report is limited to the following comments, concerns, and recommendations:

1. The permit expires on February 28, 1998, and must be renewed (if the operators choose to do so) 180 days prior to expiration. This means that the permit renewal must be submitted by September 28, 1997.
2. Allowing the permit to expire may involve a requirement to modify the outfall discharge structures to prevent them from functioning as designed and permitted.
3. Renewal of the permit will involve reexamination of the discharge criteria, resulting in pretreatment requirements or other system design changes prior to discharge.
4. Continued dependence on the adjacent waste water treatment plant to treat stormwater may affect the permit for that facility. Typically, waste water treatment plants are required to actively reduce the amount of stormwater entering their facilities.
5. The fact that stormwater discharge criteria were not met during the last discharge events may be the result of mixing stormwater with leachate. This situation may be mitigated by changes in stormwater flows, pond design, and/or management practices at the site. It might be advisable to conduct similar testing on the current pond conditions to determine if the conditions which existed in 1995 still persist.
6. An allowable emergency stormwater discharge capability is essential to maintaining operations at the site during severe weather conditions.
7. The current location of the leachate pond may be causing problems from both a stormwater quality and a leachate storage capacity standpoint. The requirement to maintain a head differential between the two ponds restricts the maximum storage capacity for the leachate pond, particularly when the pond levels are low. This makes it difficult to plan for contingencies where discharges to the WWTP are disrupted.
8. Modifications to the existing system are likely to be fairly expensive, and to involve major permit modifications. Perhaps the right time to consider such changes is at the time of operating permit renewal.

Southwest Florida Water Management District Permit 408992.00
Southeast Wet Weather Management System

This permit came to light rather late in the evaluation process, and no detailed evaluation of compliance issues associated with it were conducted as part of this review. It is included in the list of active permits, although the permit document itself lists an expiration date of August 24, 1994. A series of letters to the Southwest Florida Water Management District authorize the extension of this permit, with an unspecified expiration date. It is assumed that the permit conditions related to the original construction were complied with at the time of construction, since no information to the contrary was evident in the files made available during the evaluation review. No further evaluation of existing monitoring requirements or level of compliance was made in conjunction with this evaluation.

VII: Recommendations for Enhancement of Operational Effectiveness and Level of Compliance

Based on the preceding review of site facilities, staffing, equipment, operational practices, and regulatory and permit compliance, the following recommendations are offered. These recommendations are intended to provide a list of alternatives for consideration by the site operator when evaluating the means and methods to employ for continuing the already apparent improvements at the site.

Site Facilities

The biggest issue looming in the area of site facilities, although it is a close race, is the issue of providing sufficient dirt for cover, slope maintenance, and road construction activities. The situation with dirt is becoming critical at the site, and the available sources of additional dirt (pond maintenance and mixing soil with shredded yard waste for daily cover) promise to be short term supplies at best. The first step recommended is to find a viable alternative to dirt for daily cover, and part of that process may be to try to determine why the Formula 480 did not appear to work too well at the site. Other types of spray on materials may have the same types of problems with rough active faces and uneven terrain. New types of automatic tarping machines are starting to come on the market which may provide a viable alternative. Whatever the final choice, transition to an alternative cover system is essential to conserving available sources of dirt, particularly if dirt has to be purchased and hauled into the site.

Another site facilities issue concerns the stormwater and leachate ponds. It does not appear as though the current system will function very well in severe wet weather (not counting a hurricane). It is strongly recommended that the location and size of the leachate and stormwater ponds be evaluated, with an eye on separating them as much as possible, either through pond liners or by moving one or the other. Further, the size of the leachate pond could be increased to provide additional storage for contingencies. Perhaps an integrated approach which utilizes landfill gas to assist with leachate or stormwater volume reduction should at least be considered. There will certainly be a requirement to treat gas emissions placed on the site before too much time has passed.

Staffing and Personnel

As discussed previously (see Section VI, FDEP Operating Permit, Specific Condition 27, and elsewhere in this evaluation) the current level of staffing appears to be adequate for the basic disposal related functions associated with operation of the two Class I disposal areas, but seems to fall short of providing sufficient manpower to accomplish all the routine system maintenance activities. Three alternatives exist for providing additional capabilities at the site: (a) increase the efficiency and productivity of existing staff; (b) increase the staffing levels; and (c) change the operating paradigm to allow reallocation of staff.

Although the first alternative offers some possibilities, the gains through changing shifts, schedules, and even types of equipment utilized is not likely to generate the type of increase in effectiveness that is required. The other two possibilities, on the other hand, offer real possibilities for being viable options to provide

capacity to get done what need to be done. Implementation of any of the options may require acquisition or access to additional equipment, through purchase, rental, leases, or contractor services.

Obviously, directly increasing staff would provide additional capacity, but not necessarily more productivity and efficiency. Direct staff additions to provide additional spotters and a excavation and maintenance crew would probably involve adding two landfill attendants and three or four operators. This would provide two spotters six days per week, with two days when four spotters were on site (the "extra" spotters could be assigned to litter collection, assisting with grounds maintenance activities, and mowing grass). In addition to the current staffing at the disposal areas, the additional operators could become basically a dirt hauling and excavation crew, responsible for routine system maintenance, delivering and excavating cover dirt, road construction and maintenance, and other associated activities. Some of these tasks may be cheaper to perform with contracted labor. It might not take this many staff additions, particularly if the third alternative is explored.

When discussing changing the operational paradigm, the point to be made is many times things continue to be done a certain way simply because they have always been done that way. That is not often the best reason, but it can be pretty compelling. In the context of the landfill operation the following questions might be asked: (1) Are all the tasks performed necessary? (2) Do all task have to be performed by our own staff? (3) Will proposed changes affect our level of service? For better or worse? (4) What is absolutely necessary?

The first question has a good example in the current landfill operation. Is it necessary to operate a separate active face for small vehicles? This operation consumes two staff members full time, and some others part time. Two active faces means more litter, more required cover, more equipment hours, and more headaches. Elimination of the small vehicle dumping area and replacing it with a roll off based drop off area near the scale house that could be attended by the Litter Enforcement Officers (who could monitor load content and maybe even conduct some random load inspections at the same site) would free up most of two man-days for other uses.

Certainly, someone will have to pull the roll off boxes from the new small vehicle area to the disposal area, but that is where the second question comes in. There are roll off trucks entering and leaving the site all the time, can contractor forces be used to service the site? If so, you would expect the cost per pull to be quite low, given that the drivers are coming to the landfill anyway.

Will the proposed changes affect our level of service? The basic scenario outlined has potential for greatly improving service levels while increasing the capability for performing additional tasks that currently go begging. Users of the small vehicle disposal area should be happy to have an easier place to dump, particularly if enough capital is invested to provide a paved area for small vehicles to discharge their loads directly into the roll off boxes. Such a scenario might not be absolutely necessary, but neither is operating a second disposal area for small vehicles.

Perhaps Waste Tire Grant funds could be used to fund a position responsible for removing tires from the disposal areas.

Records of daily tonnage and seasonal variations in tonnage might prove useful in allocating staff to maximize efficiency.

Regardless of the approach taken, the fact remains that there are tasks that need doing at the site that are not currently getting done on a regular routine basis. If the goal is to continue in the mode of "no discrepancies" on future inspection reports, and, more importantly, if the site is be operated so as to minimize adverse environmental impacts, more needs to be done in the way of routine system maintenance. The current staffing arrangement may not be able to do it all without some kind of help.

Equipment

It is recommended that provision be made to gain access to an excavator (back hoe), a motor grader, and a fuel truck capable of remotely fueling and servicing the heavy equipment on site. The back hoe is sorely needed to provide the capability to perform ditch repairs, excavate ponds to remove siltation, and for general dirt excavation activities. The grader is needed to construct, repair, and maintain temporary access roads at the site (nothing cuts a roadside drainage swale quite as well as a good grader). The fuel truck would eliminate the need to walk equipment to the fuel island, thereby increasing equipment productivity and reducing wear and tear on temporary roads. Reduction in non-productive track time on the dozers will reduce maintenance costs by increasing track life (fewer hours spent driving back and forth to the fuel island means more time to push garbage).

Depending on the final solution to the dirt source problem, consideration should be given to hauling dirt in articulated, off road dump trucks rather than scraper pans. The truck cost less, have lower maintenance costs, and haul about twice as efficiently if they have a good back hoe or front end loader loading them.

Utilization of low ground pressure (LGP) tracks on all site dozers should be evaluated in the context of track maintenance costs. Particularly when the dozers are walked back and forth to the fuel island, LGP tracks experience significantly higher maintenance costs than standard tracks. If the LGP tracks are chosen for traction increases, as the operators have suggested, perhaps the operating slopes need to be examined to insure they do not get steeper than 3:1.

Operational Practices

The basic operational practices at the site would be enhanced considerably by producing and distributing a comprehensive Operations Manual which provides detailed procedures and guidelines regarding all aspects of landfill operations. Such a manual could be used as a reference for existing staff as well as a basis for training new staff members. Production of a usable operations manual requires careful consideration of site procedures and provides the perfect forum for implementing new operational protocols.

The draft operations plan currently under development at the site makes a good start toward a usable document, but requires significantly more detail and consideration of more formalized protocols for things like the approval process for "special" wastes, waste screening activities, waste acceptability, hazardous materials response, daily operational inspections (check lists, etc.), inspection and maintenance of stormwater and leachate system components, equipment check out procedures, waste tire site activities, recovered materials procedures (including operation of the scrap metal pile and the freon containing device storage area), fire response fighting procedures (for the landfill itself, the yard waste area, the waste tire area, and the area around the fuel island), and various required reporting activities and responsibilities.

Chapter 62-701.500 specifies the minimum content of an operations plan, required to comply with regulatory and permit requirements. The items included in the regulations include:

- Designation of responsible persons
- Contingency operations
- Controlling the type of waste received at the site
 - inspection procedures
 - number and location of spotters
 - procedures to be followed if prohibited wastes are detected
- Weighing incoming waste
- Vehicle traffic control and unloading
- Waste compaction and application of cover
- Operations of site systems
 - gas control and monitoring systems
 - leachate collection system
 - stormwater control system

- Water quality monitoring

The additional sections suggested above should be included, with careful attention to detail, and a goal to provide a complete guidebook for site operations which will prove useful to operations personnel (not just to comply with the minimum requirements). Procedures for attaining maximum compaction and uniform, relatively smooth working faces should be stressed.

The development process for the Operations Plan provides an opportunity to evaluate current practices associated with waste screening, special waste approval, and asbestos disposal. It is strongly recommended that formal written procedures that clearly define responsible parties and procedures be developed and implemented at the site.

Waste screening procedures should not rely on the random load inspection process alone, but should include a multi-tiered system involving each participant in the disposal process, at each step the waste takes at the site. Starting with the scale house operators, and moving on to the spotters and finally to the equipment operators and response personnel, every individual in a position to get a look at the waste should have a clearly defined and active role in the screening process.

It is strongly recommended that the random load inspection program be completely restructured, and that the responsible parties be trained specifically in the proper methods for conducting such inspections. Personnel performing the inspections should be equipped with the proper tools and safety equipment to allow a detailed inspection of load contents. This means moving the waste around to break up loads and expose the interior of waste piles discharged from trucks. Proper random load inspections cannot be done without getting your hands (or rather your gloves) dirty. Specific written procedures should be developed, and the reporting form should include specific reference to all prohibited materials which might be encountered. The process for choosing the vehicles to be inspected should be formalized, perhaps to require inspecting every 100th vehicle, or something like that, to prevent "clustering" of inspections.

It is strongly recommended that a spotter, on foot at the dumping area, be assigned to all disposal areas. It is also recommended that a multiple weigh ticket be implemented that requires these spotters to physically take a ticket copy from all vehicles disposing at the site to insure that all vehicles have crossed the scales. The primary duties of these spotters, however, should be specifically waste screening and extraction of unauthorized wastes. The current procedure of utilizing the loader to remove tires and white goods seems to work after loads are delivered and spread, and after the delivering vehicle has left the site. Spotting prohibited items sooner preserves the possibility of requiring the driver to remove the material from the site.

It is strongly recommended that the disposal area for small vehicles be covered daily in conformance with the regulations.

It is strongly recommended that separate disposal arrangements be made for C&D wastes, to get them out of the Class I disposal area. The Rule requires a separate disposal area, which is not currently the case at the site. Perhaps C&D processing and recycling, or encouragement of privately operated, or separate County operated C&D disposal capacity should be pursued.

All weather access roads should be topped with some material more durable than native soil, and should be constructed and maintained with road side swales which direct stormwater away from the roadway.

Litter fence should be installed such that the entire width of the panel is supported by the fence posts. Sagging and loose panels won't last long in a strong wind, when you need the fences the most.

Survey equipment available on site should be used regularly to measure disposal elevations, lift thicknesses, and for construction of drainage and road systems. Land marks such as the extent of the toe of slopes, the width of the active face, and surveyed matching points should be marked with stakes, flags, or cones to keep operations within constrained areas and assure construction in accordance with site plans.

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Compaction procedures should be carefully monitored and evaluated to make sure an adequate number of passes are made with the compactors before additional loads are spread. Additional attention should be given to achieving a relatively uniform and smooth surface at the active face to facilitate cover activities and maximize compaction efficiency. Compaction rates should be estimated in conjunction with the annual volume calculations for the site. Measurement of differential volumes and scalehouse tonnage records should provide reasonably good data for calculating in place compaction.

Provision for maintenance of the stormwater system should be made during the annual dry season to prepare for the upcoming rainy season. Maintenance and repairs should be completed prior to the expected onset of the seasonal rains (April-May).

Site construction plans and fill sequence diagrams should be duplicated and provided to operations supervisors for use in the field while constructing features at the site.

Daily site inspections should be recorded, maintained on file, and periodically evaluated for use in scheduling work and identifying recurrent problems.

Compliance Enhancements

The following list summarizes additional procedural changes recommended to enhance the level of regulatory and permit compliance at the site:

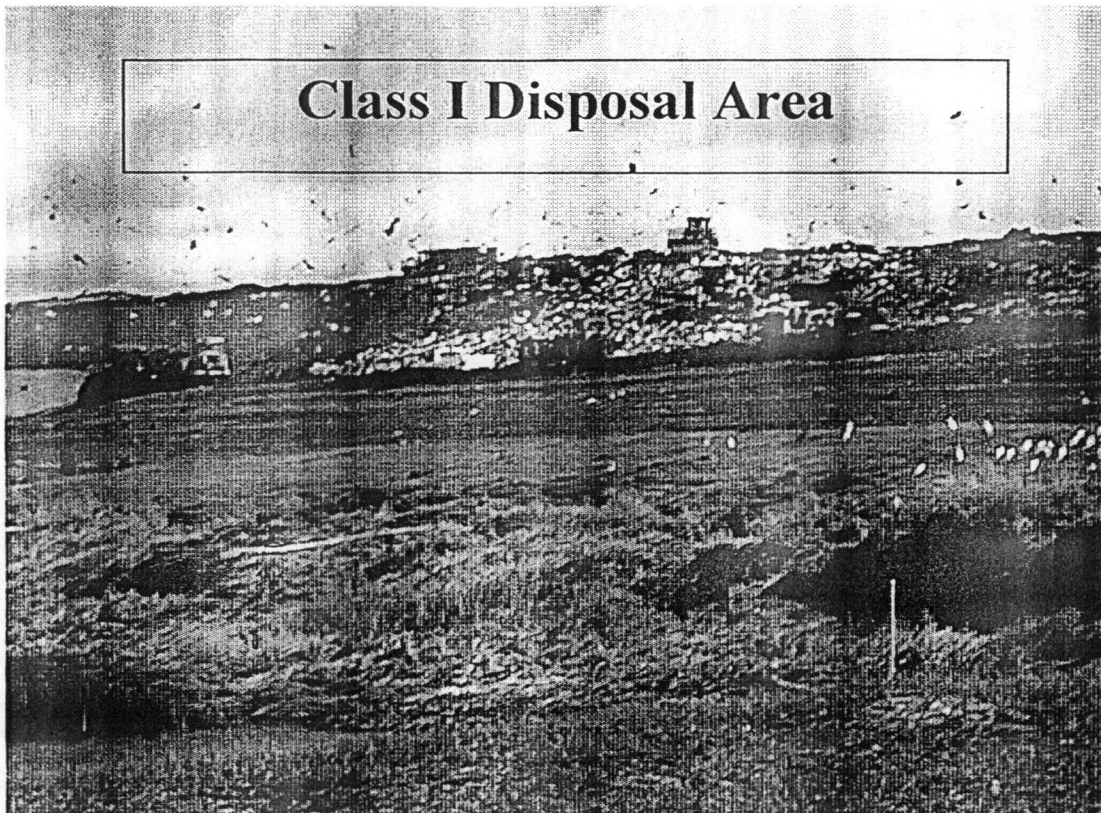
1. At the time of the next permit renewal, specific reference to the household hazardous waste facility and the freon containing device storage and processing area should be added to the facility description.
2. Documentation regarding freon certification issues should be obtained and kept on file.
3. Documentation on compliance with underground storage tank regulations should be obtained and kept on file.
4. A training schedule should be developed to insure appropriate continuing education for site landfill operators.
5. Formal, regularly scheduled safety meetings should be conducted, covering specific issues related to landfill operational safety and responding to staff safety concerns.
6. Trace metal analysis and paint filter tests should be performed on sludge periodically by the generator to insure compliance with applicable requirements.
7. Procedures for asbestos disposal, including required signs and record keeping, should be evaluated and formalized in a written protocol.
8. Contingency plans for disruption of discharges to the waste water treatment plant should be developed. Alternative treatment capacity should be sought as a back up. A written agreement or contract with the waste water treatment plant should be executed and maintained on file.
9. Periodic (at least annual) estimates of filled volume, permitted capacity, and total site capacity should be made. Annual aerial topographic analysis should be performed for use in capacity calculations and to determine compaction efficiency.
10. A telephone log should be maintained, especially for all conversations with regulatory agencies.
11. Detailed training on all permit requirements should be conducted with operations supervisors and staff.
12. Copies of all documents submitted in support of the operating permit, including engineering drawings and permit applications, etc., should be maintained at the site, available for staff review.
13. A map showing the location of all gas monitor wells and gas monitoring points should be developed and made part of the operations plan.
14. At the time of the next permit renewal, the schedules for various reporting requirements should be consolidated as much as possible to minimize the number of different deadline dates, and to

allow submittal of consolidated reports which serve to comply with more than one reporting requirement.

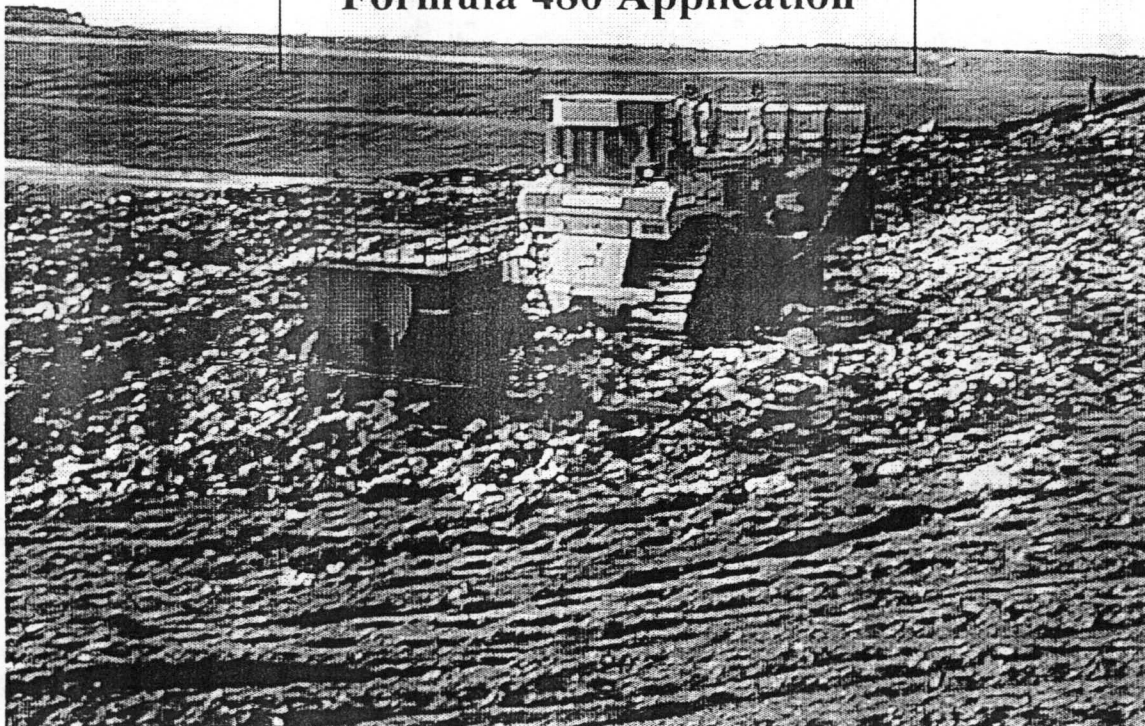
15. Consideration should be given to performing additional biotoxicity monitoring on the stormwater pond discharge to ascertain whether the previous results are representative of current conditions. Determination of the ability to discharge stormwater in accordance with the existing NPDES permit is essential for contingency planning with respect to the stormwater system, particularly severe weather/hurricane contingencies.
16. Complete quality assurance data should be obtained from the contract analytical laboratory for all sampling events. Analytical results should be evaluated for obvious errors prior to submittal to FDEP. All exceedances should be responded to with resampling to verify results. Documentation from FDEP verifying the nature of site specific back ground conditions which occasionally cause ground water exceedances should be obtained.
17. The laboratory should be required to submit analytical data on required FDEP forms to eliminate the possibility of transcription errors associated with filling out the forms again.
18. An up to date QAP should be obtained from the laboratory and supplied to the FDEP. Verification of use of approved analytical procedures should also be obtained and kept on file.
19. Permanent marking of well designations should be installed on all monitoring wells. Embossed metal tags or painted labels work well.
20. All well lock boxes should be repaired and all wells should be locked to prevent intentional introduction of contaminants by vandals or parties wishing to discredit the landfill.
21. Consideration should be given to installing dedicated bladder pumps in all monitoring wells to reduce the possibility of cross contamination and to speed up the sampling process.
22. Consideration should be given to obtaining appropriate computer applications to allow production of piezometric surface maps in house.
23. PZ-4 should be formally abandoned, in accordance with regulatory requirements.
24. The Solid Waste Technical Coordinator should, whenever possible, accompany FDEP inspectors or representatives while they are on site. These opportunities should be taken to discuss site improvements, future projects, problems encountered (always followed by proposed or implemented solutions), and to otherwise engage the FDEP staff in a friendly and professional manner. Consistency of management and commitment to good operations are important, and best demonstrated by doing.
22. Fire safety assessments for the waste tire area should be conducted as required by permit.
23. A long term source of dirt should be located or developed.
24. More involvement in solid waste professional organizations should be encouraged to develop a network of contacts and to provide a mechanism for remaining current with respect to new developments, procedures, or regulations.
25. Some sort of project management procedures should be implemented to insure complete and timely submittal of required information, and to make sure required milestones are met.
26. Staff gauges with more legible scales will make elevation measurements in the stormwater and leachate ponds easier.
27. The vendor providing scrap metal services at the site should be approached in an effort to obtain a dedicated trailer or roll off box to be left at the site for loading scrap metal. This will allow scrap items to be loaded directly in the container, eliminating the current double handling.

Pictures

Class I Disposal Area



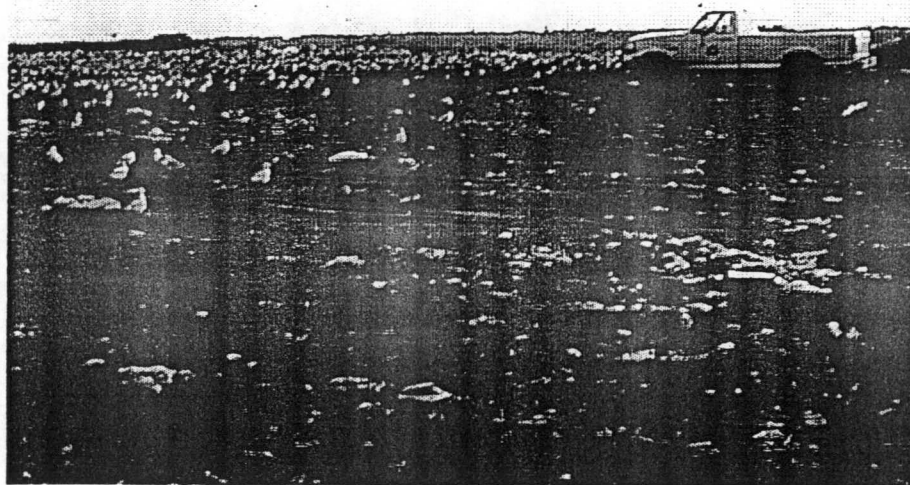
Formula 480 Application

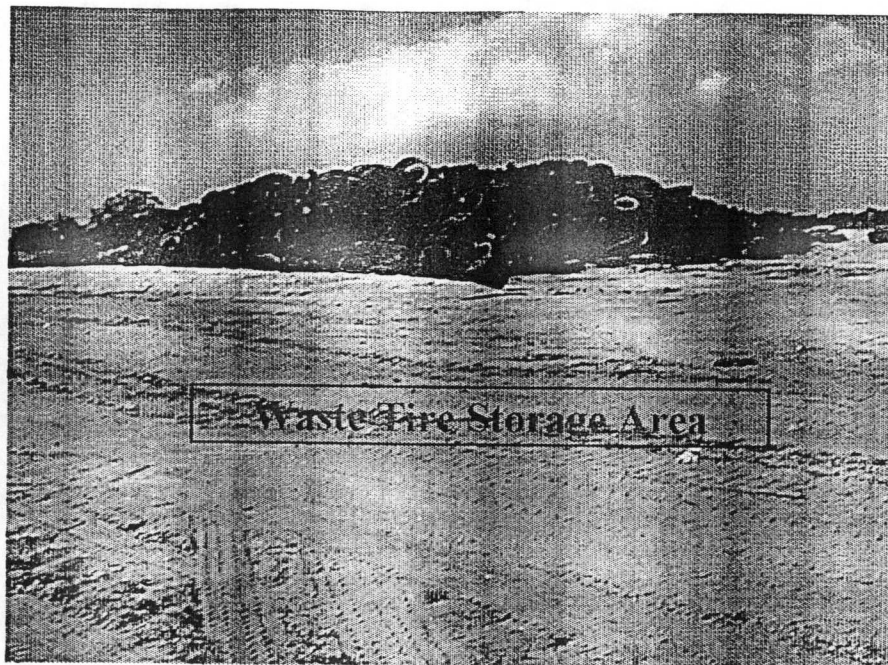


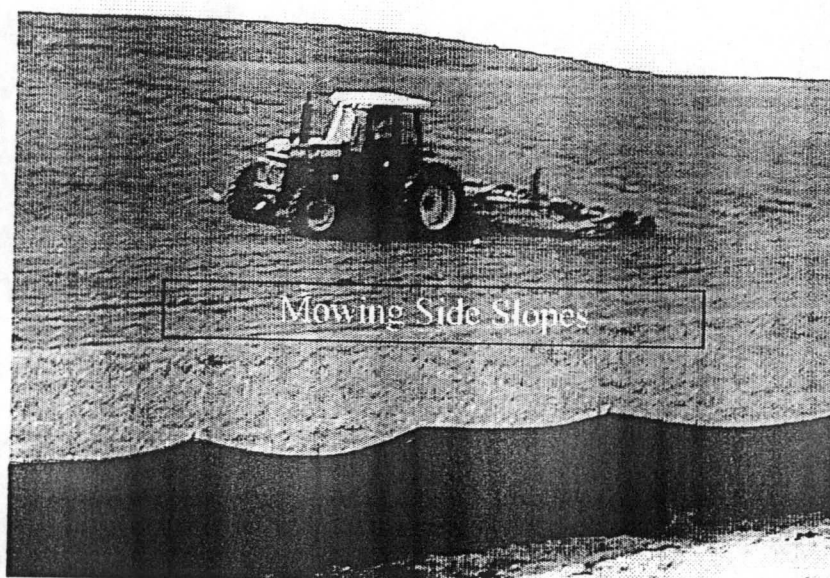
Spotter at Class I Area Using Loader to
Remove White Goods



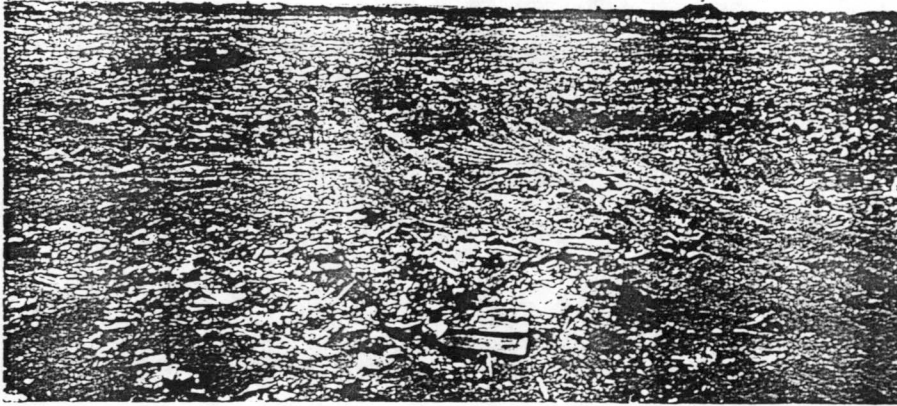
Wide View of Dumping Area



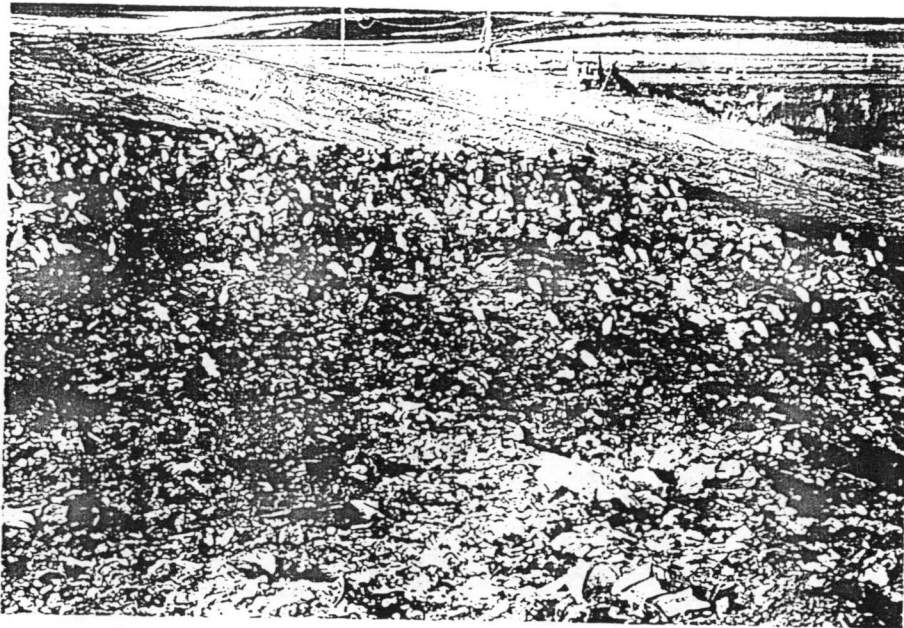




Condition of Dumping Area Floor



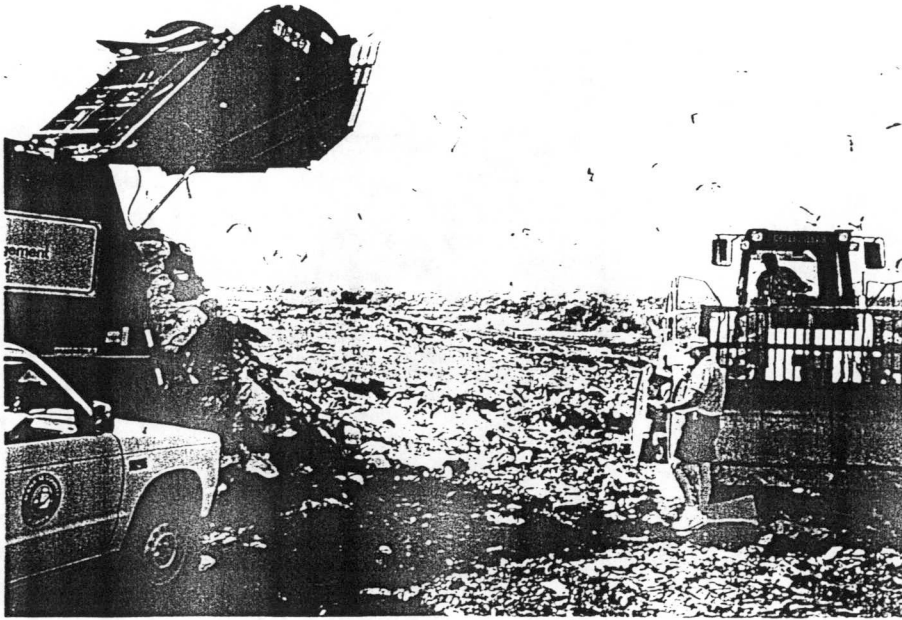
Formula 480, Worst Case Observed



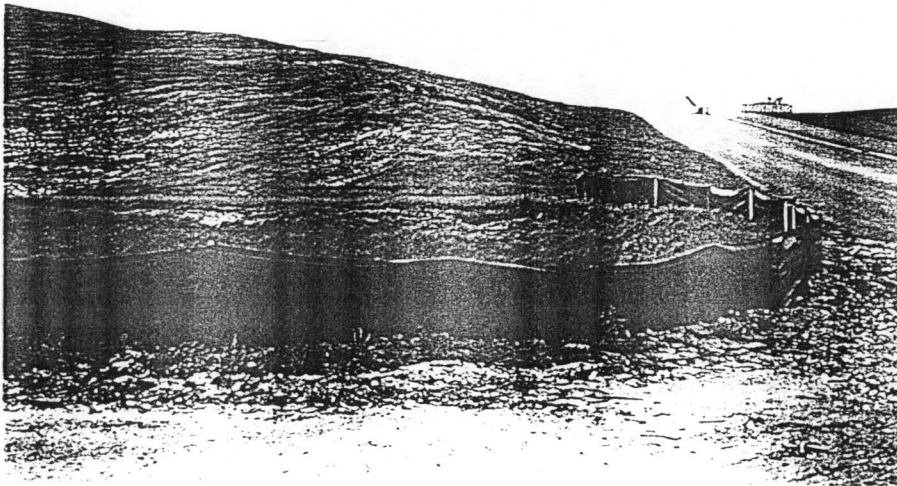
Active Face After Daily Cover



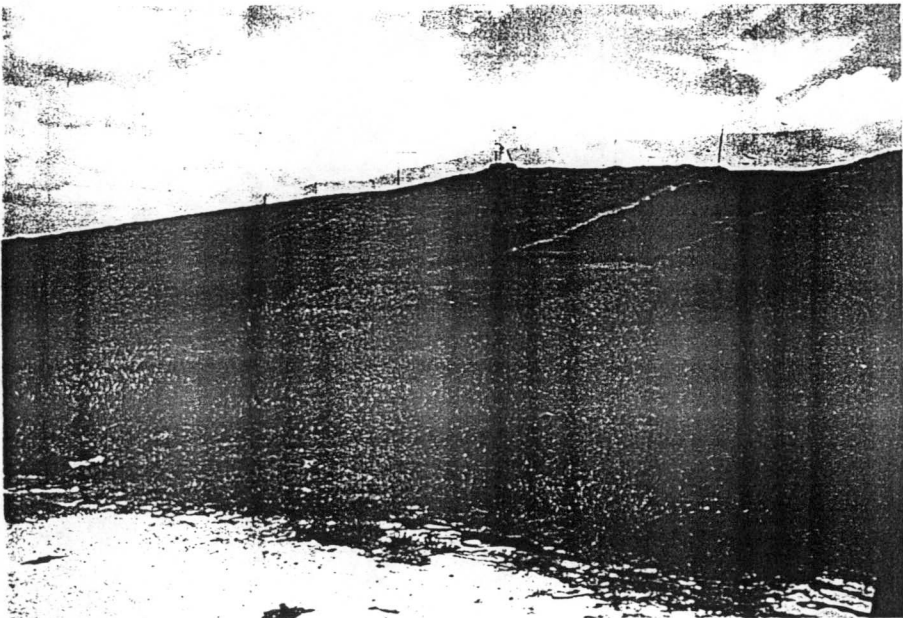
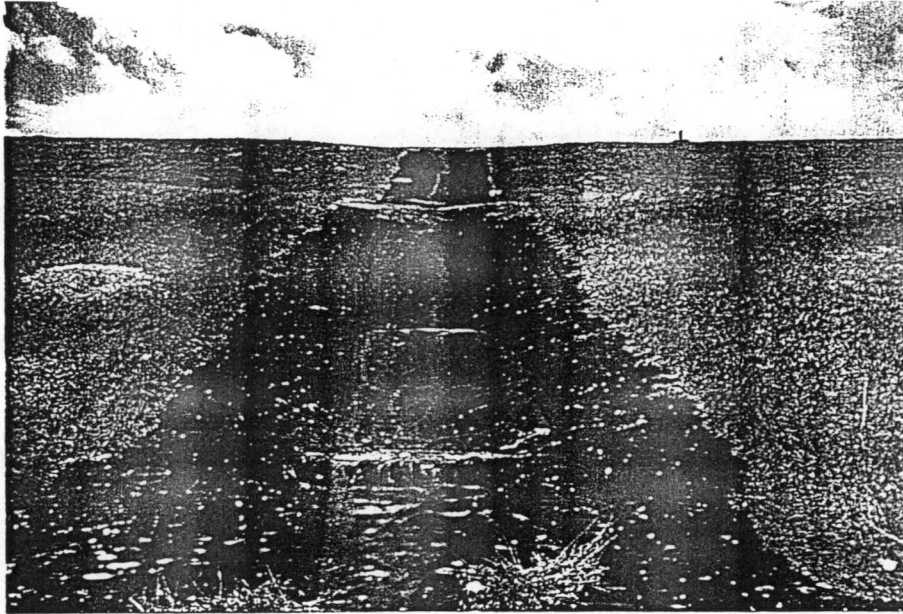
Random Load Inspection



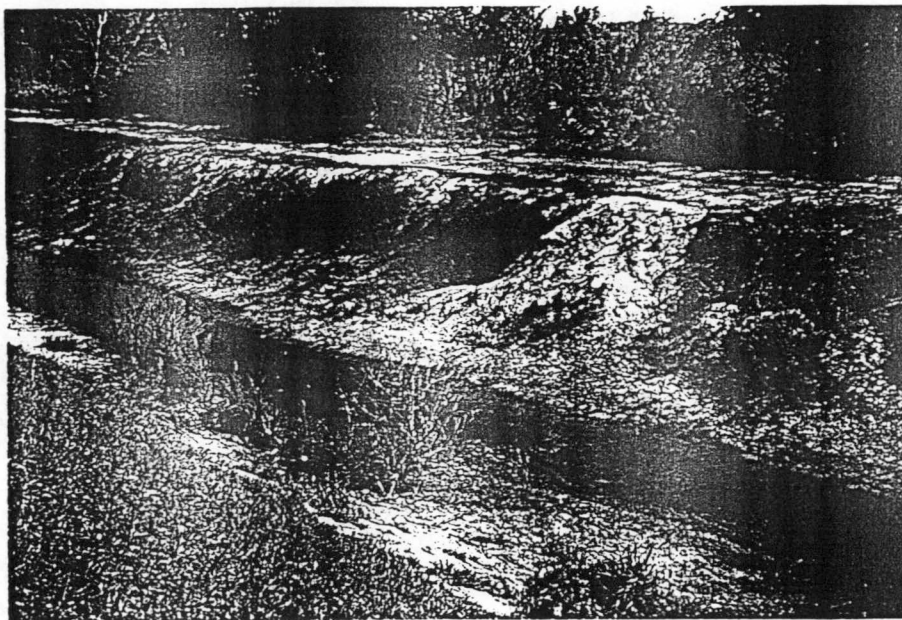
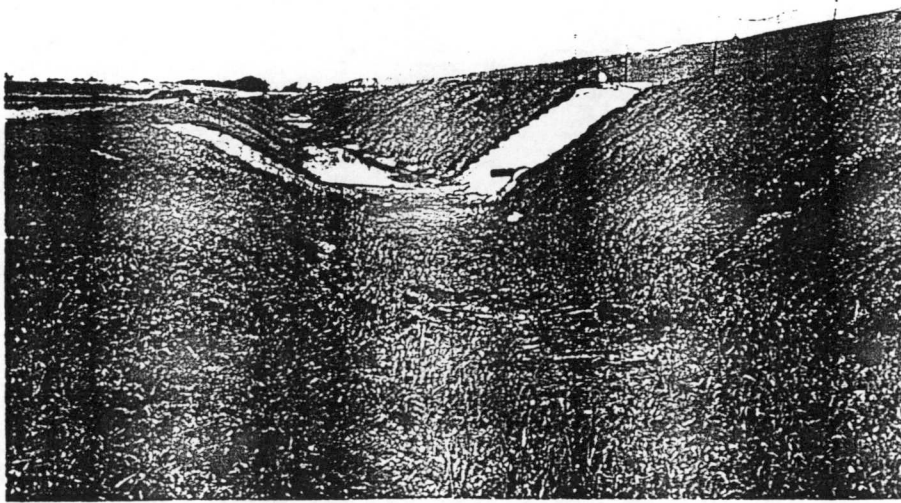
Vegetative Stress From Landfill Gas



Let Down Structures in Closed Area



Examples of Stormwater System Maintenance Issues





Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

April 30, 1997

Mr. Ben Alex
Solid Waste Technical Coordinator
Manatee County Public Works Department
Solid Waste Division
3333 Lena Road
Bradenton, Florida 34202

Mr. John R. Marquardt, P.E.
Professional Service Industries, Inc.
4400 140th Avenue North, Suite 100
Clearwater, Florida 34622

Subject: Groundwater Monitoring Plan Biannual Evaluation, October 10, 1996 Response
Lena Road Landfill, Permit No. SO41-211176
Manatee County

Dear Messrs. Alex and Marquardt:

The Solid Waste Section of the Florida Department of Environmental Protection (FDEP) has reviewed the October 10, 1996 Groundwater Monitoring Plan Biannual Evaluation Response prepared by Professional Service Industries, Inc. (PSI). This document was resubmitted, signed & sealed by a professional engineer at the FDEP's request on December 23, 1996. Comments Nos. 1, 2, 3, 4.2, 5, and 6 were addressed in the report. A response to comment 4.2 is provided below.

4.2 The response stated that the unusually high groundwater elevation in well SA-2 may be from the well connecting the surficial and confined aquifers. If this is so, the well needs to be fixed to prevent mixing of the two aquifer waters, or abandoned. Please evaluate this well, and see if the screened interval (15 - 115 feet below land surface), water quality and water elevations indicate connection of the aquifers. Please provide the FDEP with the results of this evaluation when it is complete, but no later than January 2, 1998.

Specific Condition No. 41 of the landfill's operating permit requires the next ground water monitoring plan evaluation 90 days prior to permit expiration. This report is due to the FDEP **January 2, 1998**. The report should evaluate the 1996 and 1997 water quality data. It should include: ground water flow maps with elevations collected over only a one-day period, which should coincide with the sampling events. (Please remember that a ground water flow map is required by F.A.C. Rule 62-701.510(9)(a) to be submitted with the semi-annual testing results). In addition, the evaluation or the permit application should include a proposed remedy for the existing outward gradient in Section III of the landfill by monitoring points GC-1A and GC-4; these wells also have the poorest water quality of the landfill's monitoring network.

Messrs. Alex and Marquardt
April 30, 1997
Page 2

If you have any questions, please contact me at 813/744-6100, ext. 336.

Sincerely,



Allison Amram, P.G.
Solid Waste Section

cc: Gus DiFonzo, Manatee County Public Works Department, 4410 66th St. West,
Bradenton, FL 34206
Kim Ford, P.E., FDEP
Bob Butera, P.E., FDEP

pb

Lena Rd permit C.C.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 4/30/97

Subject Lena + Erie Rd LFs

Time 9:50

Permit No. _____

M Ben Alex

County Manatee

Representing Manatee Co

Telephone No. 941/748-5543

☐ Phoned Me ☒ Was Called ☐ Scheduled Meeting ☐ Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting _____

Summary of Conversation/Meeting _____

5/1/97 Missing Jan 1997 gradient data - please send. Received 2/24/97 letter ref. the data but the data was not attached - measurements were not taken - need to put a note in file

- Erie Rd - County plans to do borings as discussed in our April meeting, then send in info. I requested that we continue the monthly status reports - Ben agreed.

(continue on another sheet, if necessary)

Signature Allison Amram

Title PGI

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX
FAXED

Date:

4/2/97

Number of pages including cover sheet:

6

To:

DAVE DEHAM

HTDA

Phone:

282 2300

Fax phone:

282 2440

CC:

From:

Jim Ford

Phone:

(813) 744-6100

x 382

Fax phone:

(813) 744-6125

REMARKS:

☐

Urgent

☐

For your review

☐

Reply ASAP

☐

Please comment

LETTERS ON
RESIDENTIAL
DROP OFFS
AS REQUESTED.



Lawton Chiles
Governor

Florida Department of Environmental Protection

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619
813-744-6100

Virginia B. Wetherell
Secretary

February 22, 1994

Mr. Daryl H. Smith, Director
Hillsborough County Department of Solid Waste
P.O. Box 1110
Tampa, FL 33601

RE: FDEP Disposition relative to permitting the six operating Hillsborough County
Collection Centers

Dear Mr. Smith:

The Department has reviewed your letter relating to permitting of Hillsborough County Community Collection Centers (CCC's) as Transfer Stations. The Department appreciates your concern and rationale for creating these facilities to ensure that hazardous materials are not introduced into the Hillsborough County Solid Waste Management System as well as providing a method of disposal for residents in the rural areas of the county who do not subscribe to curb-side collection service.

The Department, at this time, will not require the Community Collection Centers to be permitted in accordance with 17-701.801 F.S. if the following procedures are complied with in handling solid waste at these facilities:

- (1) Only residential customers shall use the facilities, that is, no solid waste collectors or commercial customers will be allowed to utilize the CCC's;
- (2) All CCC's shall have an attendant on duty when the facility is operating. Operating hours shall be posted, and fencing and gates shall be used to prevent unauthorized access when the station is closed;
- (3) Only roll-off containers and/or dumpsters shall be utilized for waste disposal - No compactors of any type shall be used at the site;

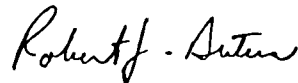
(4) Grading of the site shall allow storm water to be directed away from the collection area where the roll-off containers or dumpsters are located in order to minimize or eliminate any potential for ponding at the CCC's - berms should be used to prevent the discharge of potential leachate to surrounding areas and storm water conveyances;

(5) All processable and non-processable solid waste, with the exception of recyclables, shall be removed from the site at least daily or when a container is full. At the close of business each day when no additional waste will be received all processable and non-processable waste shall be covered with a waterproof tarp until the facility is again receiving solid waste.

The Department agrees with the County that control and monitoring of solid waste types at these facilities not only may minimize the environmental risk at the site but is an effective method of screening waste that will be processed at the Hillsborough County's WTE facility and landfill.

If there are any questions you may have, do not hesitate to contact me at 744-6100, Ext. 451.

Sincerely,



Robert J. Butera, P.E.
Solid Waste Manager
Southwest District

cc: Schipfer, P. - HCEPC
Morgan, S. - FDEP

HILLSBOROUGH COUNTY

Florida

Office of the County Administrator
Frederick B. Karl

BOARD OF COUNTY COMMISSIONERS

Phyllis Busansky
Joe Chillura
Sylvia Kimbell
Lydia Miller
Jim Norman
Jan Platt
Ed Turanchik



Senior Assistant County Administrator
Patricia Bean

Assistant County Administrators
Edwin Hunzeker
Cretta Johnson (Interim Appointment)
Jimmie Keel
Robert Taylor (Interim Appointment)

February 10, 1994

D.E.P.

FEB 14 1994

SOUTHWEST DISTRICT
TAMPA

Mr. Robert Butera
Department of Environmental Protection
3806 Coconut Palm Drive
Tampa, Florida 33619-8318

RE: Permitting Hillsborough County Collection Centers

Dear Mr. Butera:

Over the past few months, the Hillsborough County Department of Solid Waste (DSW) has had a number of conversations with you and other Department of Environmental Protection (DEP) representatives relative to the need to permit, as transfer stations, the Hillsborough County Community Collection Centers (CCC). It has always been and continues to be the DSW's position that the CCC's are not transfer stations and, therefore, do not require permits.

As you are aware, Hillsborough County operates six (6) CCC's which are strategically located throughout the County. Each CCC is unique both in configuration and in the amount of solid waste received. The CCC's are available for utilization by Hillsborough County single family residential units only. These residential customers have the option to deliver their solid waste to a CCC or to subscribe to curbside collection service. No solid waste collectors or commercial customers are permitted to utilize the CCC's.

Most of the containers utilized at the CCC's for customer deliveries are roll-off containers. However, two (2) of the CCC's utilize a single semi-tractor trailer to accept customer deliveries. Three (3) of the CCC's have ramps which allow customers to discharge their solid waste into the top of the collection containers. The remaining CCC's have the containers placed on the ground which require that customers walk the solid waste into the open end of the roll-off container.

Mr. Robert Butera

February 10, 1994

Page 2

Customers are required to separate the solid waste into three classes including processable solid waste which is delivered to the County's waste to energy facility, non-processable solid waste which is delivered to the County landfill and recyclables, including white goods and metals. Two (2) of the CCC's also provide for the receipt of recyclables including plastic, aluminum cans, glass and newspaper.

It is the DSW's position that the CCC's are the Hillsborough County equivalent of a green box system and, therefore, fall outside of the DEP 17-701.200(81) definition of a "transfer station". However, it should be emphasized that the Hillsborough County CCC system provides a much higher level of environmental sensitivity than almost all of the green boxes which are located throughout the State of Florida. Each one of the CCC's is manned full time, when operational, by an attendant whose responsibility it is to ensure that the solid waste is properly separated and, more importantly from an environmental perspective, to ensure that hazardous materials are not introduced into the Hillsborough County Solid Waste Management System. In addition, each container is removed for disposition as soon as it is full.

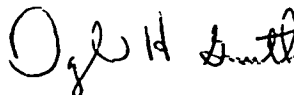
It is interesting to note that, approximately four (4) years ago, the DSW experimented with a unmanned green box system. This brief experiment revealed that as much, if not more, commercial solid waste was delivered to the green boxes when compared to residential solid waste delivered to the green boxes. In addition, on almost a daily basis, the green boxes overflowed resulting in solid waste and, in some cases, hazardous waste being placed directly on the ground. Unmanned green boxes can be used by anyone, represent a high potential for the introduction of hazardous waste into the waste stream and also represent a high potential for surface and ground water contamination. Since this type of situation does not exist at the County CCC's, the CCC's represent virtually no environmental risk.

Mr. Robert Butera
February 10, 1994
Page 3

Since it is the DSW's position that the CCC's fall into the category of green boxes and, therefore, are not required to be permitted as transfer stations, the DSW is seeking confirmation that the DEP agrees with the DSW position.

Should you have any questions concerning this matter, please feel free to contact me at (813) 276-2900.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl H. Smith". The signature is fluid and cursive, with the first name "Daryl" being the most prominent.

Daryl H. Smith
Director
Department of Solid Waste

DHS/bn

xc: Susan Allan, Assistant County Attorney

ccc'sdep

Transmit Confirmation Report

No. : 001
Receiver : 9-282-2440
Transmitter : WASTE MGT TAMPA SWDIST
Date : Apr 23 97 8:51
Time : 02'47
Mode : Norm
Pages : 06
Result : OK

Ben
4/17/97

State of Florida
Department of Environmental Protection

District Routing Slip

Kutash
Butera

Date: 9/27/96

CC to:

Pensacola	Northwest District	
Panama City	Northwest District Branch Office	
Tallahassee	Northwest District Branch Office	
Apalachicola	Northwest District Satellite Office	
✓ Tampa	Southwest District	
Punta Gorda	Southwest District Branch Office	
Bartow	Southwest District Satellite Office	
Orlando	Central District	
Melbourne	Central District Satellite Office	
Jacksonville	Northeast District	
Gainesville	Northeast District Branch Office	
Fort Myers	South District	
Marathon	South District Branch Office	
West Palm Beach	Southeast District	
Port St. Lucie	Southeast District Branch Office	
Reply Optional <input type="checkbox"/>		Reply Required <input type="checkbox"/>
Date Due _____		Date Due: _____
		Info Only <input type="checkbox"/>

Comments:

and RIS

EIS ✓ for C&D Rule

Phase I passed ERC yesterday
Phase II set for January ERC

Next Public Workshop... early November

From:

MTJ Yan

Tel.:



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

March 18, 1997

Mr. Timothy Lawrence, P.E.
Solid Waste Department
Sarasota County
8350 Bee Ridge Road
Sarasota, FL 34241

**Re: Construction and Demolition Debris as Initial Cover
Bee Ridge Landfill
Permit No.: SO58-244738, Sarasota County**

Dear Mr. Lawrence:

The Department has no objections to the use of construction and demolition debris (ground-up C&D debris) as initial cover as proposed in your February 25, 1997 letter at the Bee Ridge Landfill subject to the following conditions:

1. Waste other than C&D debris shall be removed prior to grinding.
2. Dust shall be controlled and minimized by applying water to the C&D debris prior to grinding, and as necessary after grinding.
3. The ground-up C&D debris cover material shall be sampled and screened each week to demonstrate that 90% passes a 2" screen and 50% passes a 1/4 inch screen by weight and results recorded and made available to the Department upon request.
4. The ground-up C&D debris shall be used only within the active bermed working area to prevent leachate runoff from the working face from entering the stormwater management system. Runoff from outside the bermed working face area will be considered stormwater only if flow passes over areas which have no exposed waste.
5. Leachate shall be contained from all related operations including waste unloading, sorting, grinding and storage areas.
6. Air related issues that may be expressed shall be resolved through all appropriate regulatory authorities such as FDEP's Air Program or its delegated program.

Mr. Timothy Lawrence, P.E.
Solid Waste Department

March 18, 1997
Page Two


The Department currently allows C&D debris to be segregated and co-disposed in lined landfills, however this provision may change. Although presently recycling credit may be given for the use of C&D debris as cover, this may change as well. Be advised, there is no guarantee by the Department of these continued provisions.

A permit modification is not required for the proposed activities due to the expected duration of related operations being less than 12 months at the Bee Ridge Landfill. The proposed activities are considered experimental and will serve as a demonstration to be used as the basis of approval for use at the new Central Class I Landfill.

The Department will examine the use of C & D debris (ground-up) as initial cover in upcoming landfill inspections. In accordance with FAC 62-701.200(40) and 62-701.500(7)(e), the C & D debris (ground-up) and used as initial cover shall comply with the criteria specified therein, and shall be applied in a six (6) inch compacted layer. If any of the inspections disclose problems with the cover, such as failure to meet the characteristics stated in Rule 62-701, a higher percentage of soil may be required or approval as an alternative cover may be discontinued.

On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,



Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab

cc: David Bullock, Sarasota County
Chris McGuire, OGC Tallahassee
Richard Tedder, P.E., FDEP Tallahassee
Jerry Kissel, P.E., FDEP Tampa, Air Section
Robert Butera, P.E., FDEP Tampa, Solid Waste Section

BRIDGEWAY ACRES STORMWATER/LEACHATE BALANCE REPORT

A	C	E	F	G	H	I	J	K	L	M
MONTH	RAINFALL AMOUNT ACRE/FEET	NET DIFFERENCE IN AVAILABLE STORAGE	PUMPING VOLUME TO L.S.S. GALLONS	PUMPING VOLUME. ACRE/FEET	RECLAIMED WATERS ACRE/FEET	SEWER DISCHARGE ACRE/FEET	COOLING TOWER EVAPORATION ACRE/FEET	OFF SITE DISCHARGE ACRE/FEET	EVAPORATION ACRE/FEET	BALANCE ACRE-FEET
Jan-97	52.93	25.89	32,574,500	99.97	10.47	25.36	85.08	0.00	19.80	-40.95
Feb-97	16.43	86.37	33,554,200	102.98	11.87	30.39	84.46	0.00	25.3	-25.48

NOTES: BALANCE=C+E-G-K-L

STORMWATER/LEACHATE BALANCE REPORT **BRIDGEWAY ACRES LANDFILL**

A	B	C	D	E	F	G	H	I	J	K	L	M
Date	Rainfall (inches)	Rainfall (Acre-Feet)	Pond A Elevation (MSL)	Available Storage (Acre-Feet)	Total Daily Pumping L.S.S. (G.P.D.)	Total Daily Pumping L.S.S. (Acre-Feet)	Total Reclaimed (Acre-Feet)	Total Sewer Discharge	Total Cooling Tower Evaporation	Off Site Discharge	Evaporation (Acre-Feet)	Balance (Acre-Feet)
12/31/96			3.20	52.26								
1/1/97	0.00		3.10	58.74	1,448,500.00	4.45				0.00		
1/2/97	0.00		3.08	60.03	858,300.00	2.63				0.00		
1/3/97	0.00		3.08	60.03	591,000.00	1.81				0.00		
1/4/97	0.00		3.15	55.50	1,035,300.00	3.18				0.00		
1/5/97	0.00		3.13	56.80	-	-				0.00		
1/6/97	0.00		3.10	58.74	1,947,600.00	5.98				0.00		
1/7/97	0.00		3.12	57.44	782,400.00	2.40				0.00		
1/8/97	0.00		3.10	58.74	1,461,200.00	4.48				0.00		
1/9/97	0.00		3.06	61.33	1,422,700.00	4.37				0.00		
1/10/97	0.45		3.08	60.03	1,146,700.00	3.52				0.00		
1/11/97	0.00		3.08	60.03	915,800.00	2.81				0.00		
1/12/97	0.00		3.02	63.92	-	-				0.00		
1/13/97	0.00		2.96	67.80	1,945,300.00	5.97				0.00		
1/14/97	0.06		2.94	69.10	861,700.00	2.64				0.00		
1/15/97	0.00		2.92	70.39	938,900.00	2.88				0.00		
1/16/97	0.00		2.92	70.39	904,200.00	2.78				0.00		
1/17/97	0.00		2.96	67.80	980,500.00	3.01				0.00		
1/18/97	0.00		3.10	58.74	1,018,100.00	3.12				0.00		
1/19/97	0.00		3.05	61.98	-	-				0.00		
1/20/97	0.00		3.00	65.21	1,806,400.00	5.54				0.00		
1/21/97	0.00		2.98	66.51	1,375,700.00	4.22				0.00		
1/22/97	0.00		2.98	66.51	1,274,500.00	3.91				0.00		
1/23/97	0.00		2.95	68.45	1,283,900.00	3.94				0.00		
1/24/97	0.00		2.94	69.10	1,116,700.00	3.43				0.00		
1/25/97	0.00		2.92	70.39	1,103,500.00	3.39				0.00		
1/26/97	0.00		2.90	71.68	-	-				0.00		
1/27/97	0.31		2.88	72.98	2,406,200.00	7.38				0.00		
1/28/97	0.00		2.86	74.27	1,238,200.00	3.80				0.00		
1/29/97	0.00		2.80	78.15	1,319,500.00	4.05				0.00		
1/30/97	0.05		2.80	78.15	861,400.00	2.64				0.00		
1/31/97	0.00		2.80	78.15	530,300.00	1.63				0.00		
TOTAL	0.87	52.93			32,574,500.00	99.97	3,410,000.00	8,263,382.00	27,721,118.00	0.00	19.80	-40.95
NET DIFFERENCE IN STORAGE				25.89		ACRE/FEET	10.47	25.36	85.08			

NOTE 1: AVAILABLE STORAGE IS 9 AT 4.00 MSL. (NEGATIVE NUMBER DENOTES STORAGE - 4.18 ACRE FEET)

NOTE 2: L.S.S. - LIME SOFTENING SYSTEM, RECLAIMED WATERS- ST. PETE AND/OR LARGO RECLAIMED WATERS

NOTE 3: EVAPORATION= .85 X AVERAGE PAN EVAPORATION (SWFWMD) FOR EVAPORATION ON 100 ACRES

NOTE 4: BALANCE = C+E+H-I-J-K-L OTHER FACTORS NOT CALCULATED IN THE SPREADSHEET ARE GROUNDWATER RECHARGE, EVAPOTRANSPIRATION, OTHER ONSITE WATER MANAGEMENT

STORMWATER/LEACHATE BALANCE REPORT
BRIDGEWAY ACRES LANDFILL

A	B	C	D	E	F	G	H	I	J	K	L	M
Date	Rainfall (inches)	Rainfall (Acre-Feet)	Pond A Elevation (MSL)	Available Storage (Acre-Feet)	Total Daily Pumping L.S.S. (G.P.D.)	Total Daily Pumping L.S.S. (Acre-Feet)	Total Reclaimed (Acre-Feet)	Total Sewer Discharge	Total Cooling Tower Evaporation	Off Site Discharge	Evaporation (Acre-Feet)	Balance (Acre- Feet)
1/31/97			2.80	78.15								
2/1/97	0.00		2.79	78.80	732,000.00	2.25				0.00		
2/2/97	0.00		2.75	81.38	-	-				0.00		
2/3/97	0.00		2.72	83.32	2,037,000.00	6.25				0.00		
2/4/97	0.00		2.69	85.26	1,180,000.00	3.62				0.00		
2/5/97	0.00		2.69	85.26	1,127,900.00	3.46				0.00		
2/6/97	0.00		2.60	91.08	1,395,700.00	4.28				0.00		
2/7/97	0.00		2.64	88.49	1,122,900.00	3.45				0.00		
2/8/97	0.00		2.50	97.54	1,126,900.00	3.46				0.00		
2/9/97	0.00		2.45	100.76	-	-				0.00		
2/10/97	0.02		2.36	106.57	2,476,700.00	7.60				0.00		
2/11/97	0.07		2.32	109.15	1,303,700.00	4.00				0.00		
2/12/97	0.00		2.26	113.02	1,289,000.00	3.96				0.00		
2/13/97	0.00		2.18	118.18	1,244,500.00	3.82				0.00		
2/14/97	0.00		2.14	120.76	1,206,400.00	3.70				0.00		
2/15/97	0.15		2.00	129.78	1,262,600.00	3.88				0.00		
2/16/97	0.00		2.00	129.78	-	-				0.00		
2/17/97	0.03		2.00	129.78	2,250,900.00	6.91				0.00		
2/18/97	0.00		1.96	132.36	1,289,000.00	3.96				0.00		
2/19/97	0.00		1.90	136.22	1,332,700.00	4.09				0.00		
2/20/97	0.00		1.82	141.37	1,471,900.00	4.52				0.00		
2/21/97	0.00		1.78	143.94	1,393,600.00	4.28				0.00		
2/22/97	0.00		1.72	147.80		-				0.00		
2/23/97	0.00		1.69	149.73		-				0.00		
2/24/97	0.00		1.64	152.95		-				0.00		
2/25/97	0.00		1.58	156.81	4,889,300.00	15.01				0.00		
2/26/97	0.00		1.56	158.09	1,123,300.00	3.45				0.00		
2/27/97	0.00		1.50	161.95	1,127,200.00	3.46				0.00		
2/28/97	0.00		1.46	164.52	1,171,000.00	3.59				0.00		
				-		-				0.00		
				-		-				0.00		
				-		-				0.00		
TOTAL	0.27	16.43			33,554,200.00	102.98	3,869,000.00	9,902,170.29	27,521,029.71	0.00	25.30	-25.48
NET DIFFERENCE IN STORAGE				86.37		ACRE/FEET	11.87	30.39	84.46			

NOTE 1: AVAILABLE STORAGE IS 0 AT 400 MSL. (NEGATIVE NUMBER DENOTES STORAGE ~ 448 ACRE/FEET)

NOTE 2: L.S.S. - LIME SOFTENING SYSTEM, RECLAIMED WATERS- ST. PETE AND/OR LARGO RECLAIMED WATERS

NOTE 3: EVAPORATION= .85 X AVERAGE PAN EVAPORATION (SWFWMD) FOR EVAPORATION ON 100 ACRES

NOTE 4: BALANCE = C+E+H-I-J-K-L OTHER FACTORS NOT CALCULATED IN THE SPREADSHEET ARE GROUNDWATER RECHARGE, EVAPOTRANSPIRATION, OTHER ONSITE WATER MANAGEMENT



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

SITE INSPECTION REPORT

NAME OF SITE: LENA ROAD LF DATE: 4/11/97
SITE ADDRESS/LOCATION: LENA ROAD
CITY: BRADENTON PERMIT #: _____

REASON FOR VISIT:

- COMPLIANCE INSPECTION ☒
- PERMITTING INSPECTION ☒
- COMPLAINT INVESTIGATION ☐

PERSONS PRESENT: Ben Alex, Kim Forre

SUMMARY REPORT:

OBSERVED ALL WARNING SIGNS BY LEAS
MANHOLES. CLOSURE LOOKS GOOD.
DISCUSSED LEACHATE BALANCE - SOME LEACHATE
RECIRCULATED INTO LF FROM LEACHATE POND.
DISCUSSED NEW SET OF FILL DRAWINGS -
WILL ALLOW ONLY 1 WORKING DISPOSAL AREA
(CURRENTLY 2)

VIOLATIONS NOTED: BELM TO CONTAIN LEACHATE NOT
COMPLETES AREAS FOR MAN/PAP DISPOSAL AREAS
AS REQUIRED BY SPEC COM #2.d

DEP REPRESENTATIVE: [Signature]

March 27, 1997

✓
Mr. Kim B. Ford, P.E.
Department of Environmental Protection
Solid Waste Section
3804 Coconut Drive
Tampa, FL 33619

RECEIVED
MAR 28 1997

Department of Environmental Protection
BY SOUTHWEST DISTRICT

HDR

RE: Manatee County, Lena Road Landfill
Pending Permit Modification No.: SO41-300419

Dear Mr. Ford:

The following letter and accompanying drawings contains the additional information you requested in your February 27, 1997 letter to Mr. Ben Alex concerning the aforementioned project. Listed below in italic font are the items you had requested in your letter to Mr. Alex followed by HDR's response.

Gas Vents

1. *Borehole diameter for gas vents and specifications for gravel to prevent dissolution from gas and leachate.*
 - The gas vent borehole diameter shall be 18".
 - Provide gravel pack material consisting of clean grains that are uniform. The material shall be noncalcareous with a limit of 5 percent by weight of calcareous material.
 - Provide gravel pack consisting of hard grains with an average specific gravity of not less than 2.5. Not more than 1 percent by weight of the material shall have a specific gravity of 2.25 or less.
 - Provide gravel material containing not more than 2 percent by weight of thin, flat or elongated pieces and free of shale, mica, clay, sand, dirt, loam, and organic impurities.
 - Gradation: Provide FDOT Standard size of Course aggregate size number 1, 2, 24, or 3.

Sequence of Filling

2. *Revised plans replacing the word "cell" with "lift" to identify each lift as a series of cells shown on the plans as defined by Department rules.*
 - See revised plans.
3. *Revised plans to delete reference to intermediate cover for areas where waste will be placed within 180 days.*
 - See revised plans.
4. *Plan notes to identify erosion control for terrace construction and percent slope to prevent ponding due to expected settlement.*
 - See revised plans and notes.
5. *Plan notes to define "temporary final cover".*
 - Temporary final cover has been deleted from plan-views and cross sections.

HDR Engineering, Inc.

Suite 300
5100 W. Kennedy Boulevard
Tampa, Florida
33609-1840

Telephone
813 282-2300
Fax
813 282-2449

6. *Plan-view detail for inlet of letdown structures to show how stormwater is directed into inlet.*
 - See revised plans, drawing C-1.
7. *Stormwater conveyances and management system for Stage I prior to joining with Stage III.*
 - See revised plans.

If you should require additional information please do not hesitate to call me at (813) 282-2393.

Respectfully,

HDR ENGINEERING, INC.

Terry Tiedemann, P.E.

ENC.

cc: Ben Alex, Manatee County
Dave Pelham, HDR Engineering

TABLE 1
Standard Sizes of Coarse Aggregate

Number	Nominal Size Square Openings	Amounts Finer than Each Laboratory Sieve (Square Openings), weight percent						
		4-in. (100- mm)	3 1/2-in. (90- mm)	3-in. (75- mm)	2 1/2-in. (63- mm)	2-in. (50- mm)	1 1/2-in. (37.5- mm)	1-in. (25.0- mm)
1	3 1/2 to 1 1/2-in. (90 to 37.5-mm)	100	90 to 100	—	25 to 60	—	0 to 15	—
2	2 1/2 to 1 1/2-in. (63 to 37.5-mm)	—	—	100	90 to 100	35 to 70	0 to 15	—
4	2 1/2 to 3/4-in. (63 to 19.0-mm)	—	—	100	90 to 100	—	25 to 60	—
3	2 to 1-in. (50 to 25.0-mm)	—	—	—	100	90 to 100	35 to 70	0 to 15
7	2-in. to No. 4 (50 to 4.75-mm)	—	—	—	100	95 to 100	—	35 to 70
4	1 1/2 to 3/4-in. (37.5 to 19.0-mm)	—	—	—	—	100	90 to 100	20 to 55
7	1 1/2 to No. 4 (37.5 to 4.75-mm)	—	—	—	—	100	95 to 100	—
5	1 to 1/2-in. (25.0 to 12.5-mm)	—	—	—	—	—	100	90 to 100
56	1 to 3/4-in. (25.0 to 9.5-mm)	—	—	—	—	—	100	90 to 100
57	1-in. to No. 4 (25.0 to 4.75-mm)	—	—	—	—	—	100	95 to 100
6	3/4 to 1/2-in. (19.0 to 9.5-mm)	—	—	—	—	—	—	100
67	3/4-in. to No. 4 (19.0 to 4.75-mm)	—	—	—	—	—	—	100
68	3/4-in. to No. 8 (19.0 to 2.36-mm)	—	—	—	—	—	—	100
7	1/2-in. to No. 4 (12.5 to 4.75-mm)	—	—	—	—	—	—	—
78	1/2-in. to No. 8 (12.5 to 2.36-mm)	—	—	—	—	—	—	—
8	3/4-in. to No. 8 (9.5 to 2.36-mm)	—	—	—	—	—	—	—
89	3/4-in. to No. 16 (9.5 to 1.18-mm)	—	—	—	—	—	—	—
9	No. 4 to No. 16 (4.75 to 1.18-mm)	—	—	—	—	—	—	—
10	No. 4 to 0 (4.75-mm)	—	—	—	—	—	—	—

From: FOOT Standard specifications
for Road and Bridge
Construction, 1991

pg. 638

TABLE 1 (Continued)
Standard Sizes of Coarse Aggregate

Size Number	Nominal Size Square Openings	Amounts Finer than Each Laboratory Sieve (Square Openings), weight percent						
		3/4-in. (19.0- mm)	1/2-in. (12.5- mm)	3/8-in. (9.5- mm)	No. 4 (4.75- mm)	No. 8 (2.36- mm)	No. 16 (1.18- mm)	No. 50 (0.300- mm)
1	3 1/2 to 1 1/2-in. (90 to 37.5-mm)	0 to 5	—	—	—	—	—	—
2	2 1/2 to 1 1/2-in. (63 to 37.5-mm)	0 to 5	—	—	—	—	—	—
24	2 1/2 to 3/4-in. (63 to 19.0-mm)	0 to 10	0 to 5	—	—	—	—	—
3	2 to 1-in. (50 to 25.0-mm)	—	0 to 5	—	—	—	—	—
357	2-in. to No. 4 (50 to 4.75-mm)	—	10 to 30	—	0 to 5	—	—	—
4	1 1/2 to 3/4-in. (37.5 to 19.0-mm)	0 to 15	—	0 to 5	—	—	—	—
467	1 1/2 to No. 4 (37.5 to 4.75-mm)	35 to 70	—	10 to 30	0 to 5	—	—	—
5	1 to 1/2-in. (25.0 to 12.5-mm)	20 to 55	0 to 10	0 to 5	—	—	—	—
56	1 to 3/4-in. (25.0 to 9.5-mm)	40 to 85	10 to 40	0 to 15	0 to 5	—	—	—
57	1-in. to No. 4 (25.0 to 4.75-mm)	—	25 to 60	—	0 to 10	0 to 5	—	—
6	3/4 to 1/2-in. (19.0 to 9.5-mm)	90 to 100	20 to 55	0 to 15	0 to 5	—	—	—
67	3/4-in. to No. 4 (19.0 to 4.75-mm)	90 to 100	—	20 to 55	0 to 10	0 to 5	—	—
68	3/4-in. to No. 8 (19.0 to 2.36-mm)	90 to 100	—	30 to 65	5 to 25	0 to 10	0 to 5	—
7	1/2-in. to No. 4 (12.5 to 4.75-mm)	100	90 to 100	40 to 70	0 to 15	0 to 5	—	—
78	1/2-in. to No. 8 (12.5 to 2.36-mm)	100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5	—
8	3/4-in. to No. 8 (9.5 to 2.36-mm)	—	100	85 to 100	10 to 30	0 to 10	0 to 5	—
89	3/4-in. to No. 16 (9.5 to 1.18-mm)	—	100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5
9	No. 4 to No. 16 (4.75 to 1.18-mm)	—	—	100	85 to 100	10 to 40	0 to 10	0 to 5
10	No. 4 to 0 (4.75-mm)	—	—	100	85 to 100	—	—	—

NOTE: The gradations in Table 1 represent the extreme limits for the various sizes indicated, which will be used in determining the suitability for use of coarse aggregate from all sources of supply. For any grade from any one source, the gradation shall be held reasonably uniform and not subject to the extreme percentages of gradation specified above.

pg. 639

11/11



Department of Environmental Protection

SP
KF

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

March 20, 1997

Mr. Thomas D. Robinson
Enviro Group of Florida, Inc.
1403 Plantation Circle, Suite 112
Plant City, Florida 33567

D.E.P.
MAR 24 1997
SOUTHWEST DISTRICT
TAMPA

RE: Land-Cover 480 Initial Cover
360 Degree Applicator Spray Bar

Dear Mr. Robinson:

This letter is in response to your request that the Department consider revisions to its June 1, 1992 approval authorizing the use of Land-Cover 480 as initial cover at landfills. A copy of the 1992 Department approval memorandum is enclosed for your review. This approval included some specific conditions for use of the product. Condition No. 3 read as follows:

For the purposes of initial cover, a minimum of two coats of the product diluted 50% to 60% with water should be applied.

You have stated that Enviro Group of Florida, Inc. now has a spray bar applicator with 360 degree spray nozzles which can eliminate the need for a two coat application of your product to ensure total coverage of the solid waste. We have also received a letter from Volusia County indicating that a recent single application test using the new spray bar demonstrated it was effective in coating the waste with Land-Cover 480, and that only minimal touch-up with a hand spray was required after the single application. The results of this test were witnessed and confirmed by staff from our Central District office. You have asked that the Department approval for use of this product be modified to allow a single pass application if the new 360 degree application spray bar is used.

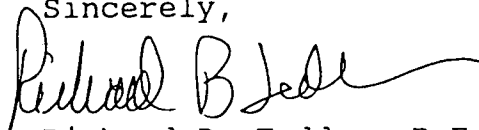
Mr. Thomas D. Robinson
Page Two
March 20, 1997

We have discussed this matter with our District offices and agree with your request. Condition No. 3 of our approval is now modified as follows:

For the purposes of initial cover, a minimum of two coats of the product diluted 50% to 60% with water should be applied. If the 360 degree applicator spray bar is used to apply the product, only a single pass will be required with touch-up by a hand spray or other appropriate device as needed.

I hope this modification to our original approval will satisfy your needs. If you have any further questions, please feel free to contact me at 904/488-0300.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard B. Tedder", with a long horizontal flourish extending to the right.

Richard B. Tedder, P.E.
Solid Waste Section

RBT/lr

Enclosure

cc: Waste Program Administrators, w/attachment
Mary Jean Yon
Chris McGuire

1	_____	_____
2	_____	_____
3	_____	_____

Interoffice Memorandum

TO: District Waste Program Administrators
Solid Waste Permitting Engineers

FROM: Mary Jean Yon, Administrator
Solid Waste Section *MJY*

DATE: June 1, 1992

SUBJECT: Land-Cover 480
Use of Product as Initial Cover

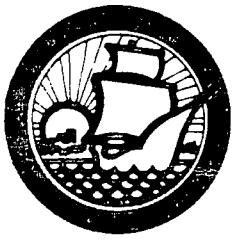
With the help of the Central District, the Department has completed its review and initial trial of Land-Cover 480, a modified liquid clay concentrate intended for use as landfill cover. After reviewing the data submitted by Enviro-Group Inc. and observing the demonstrations conducted at the Tomoka Farms Landfill (Volusia County) and the City of St. Cloud Landfill (Osceola County), we have concluded that this product is acceptable for use as initial cover at landfills in Florida. This product should not be used for intermediate or final cover at landfills. Final approval for a specific landfill will be left to the discretion of the Districts.

Applicants for both new and modified permits must provide reasonable assurance that this product will be properly used and will not result in excess litter or any other nuisance. In addition, the following conditions should be imposed:

1. Only the new product which has been formulated without the use of chromic acid may be used.
2. Should the product formulation be changed, the Department must be notified and given the opportunity to review the product chemistry before the new product is marketed in Florida.
3. For the purposes of initial cover, a minimum of two coats of the product diluted 50% to 60% with water should be applied.

If you have any questions, please feel free to call me at Suncom: 292-6104.

MJY:lv
cf: Bill Hinkley
Chris McGuire



Allison
Any comments?
Kim
2/3/97

MANATEE COUNTY GOVERNMENT Public Works Department

February 24, 1997

Allison Amram, P.G.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Manatee County Solid Waste Management Facility
Lena Road Landfill

Dear Ms. Amram:

Enclosed please find the January 1996, monthly ground water gradient water balance and leachate tracking summary for the above referenced subject. Calibration for the gas probe was completed and the instrument received in time for January's measurement. An oversight on our part, depth to groundwater measurements for January were not taken, thus no water gradient report is included.

Comparing well boring logs against actual field measurements, there appears a need to have all of the monitoring wells and piezometers cleaned free of all silt that has accumulated in the wells. We will contract with our vendor to have the wells and piezometers cleaned. Upon completion, a report summarizing the work including the total depth for each well will be provided to your office. If you have any questions or require additional information please call me at 941-748-5543.

Sincerely,

Benjamin L. Alex

Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Kim Ford, P.E., FDEP
Len Bramble, P.E., Public Works Director
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *KL*

not attached

this is file



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

February 27, 1997

Mr. Ben Alex
Manatee County
Solid Waste Management
3333 Lena Road
Bradenton, FL 34202

Re: Lena Road Landfill
Pending Permit Modification No.: SO41-300419, Manatee County

Dear Mr. Alex:

This is to acknowledge receipt of your request for permit modification received January 29, 1997 regarding sequence of filling, gas vents and alternate cover.

This letter constitutes notice that a permit modification will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your request for a permit modification is incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]. Please provide:

Gas Vents

1. Borehole diameter for gas vents and specifications for gravel to prevent dissolution from gas and leachate.

Sequence of Filling

2. Revised plans replacing the word "cell" with "lift" to identify each lift as a series of cells shown on the plans as defined by Department rules.
3. Revised plans to delete reference to intermediate cover for areas where waste will be placed within 180 days.
4. Plan notes to identify erosion control for terrace construction and percent slope to prevent ponding due to expected settlement.
5. Plan notes to define "temporary final cover".

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Printed on recycled paper.

Mr. Ben Alex
Manatee County

February 27, 1997
Page Two

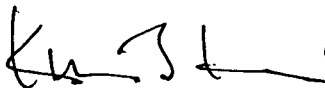
6. Plan-view detail for inlet of letdown structures to show how stormwater is directed into inlet.
7. Stormwater conveyances and management system for Stage I prior to joining with Stage III.

Please provide all responses that relate to engineering required for operation or construction, signed and sealed by a professional engineer. This includes all technical responses that require conclusions and recommendations regarding existing conditions.

"NOTICE! Pursuant to the provisions of Section 120.600, F.S. and Chapter 62-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 30 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 90 days to develop, an application for new construction should be withdrawn and resubmitted when completed information is available. Or for operating permits, if a response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

You are requested to arrange a meeting with DEP staff to discuss the items in this letter prior to responding. Please submit your response to this letter as one complete package. On all future correspondence to the Department, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,



Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab

cc: Gus DiFonso, Manatee County
Robert Hall, P.E., Manatee County
Dave Pelham, P.E., HDR
Robert Butera, P.E., FDEP Tampa *For RB*

Learn RD LE

RC ERP

TOTAL SITE :

(1) CENT II III COMPLETED

(2) NEW CALL FOR

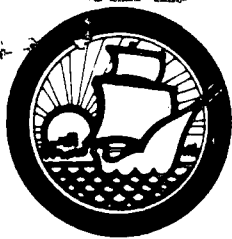
STAGE I IF ADM FACILITY

(CF ASK THAT ALL STORM WATER
ISSUES RESOLVED PRIOR TO
SUBMITTAL OF OPERATION PLAN
RENEWAL

Randy C
Terry T
Fur F

2/4/97

— 2



MANATEE COUNTY GOVERNMENT

Public Works Department

January 27, 1997

Kim Ford, P.E.
Division of Waste Management
Department of Environmental Protection, South West District
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Manatee County, Lena Road Landfill
Permit Modification

RECEIVED
JAN 29 1997
Department of Environmental Protection
BY SOUTH-WEST DISTRICT

Dear Mr. Ford:

The Public Works Department (Solid Waste Section) requests modification to operating permit No. S041-211176. Enclosed please find a check for \$250.00. Modification to the permit should incorporate the following topics.

Fill Sequence Plan:

Attached is one signed and sealed copy of the fill sequence plan. The plan describes a seven year progression of filling, beginning in October 1996 and ending in October 2003. The plan shows filling operations in six month time frames up to 2003. Each six month increment shows a plan and cross-section of filling operations, cell dimensions, and direction of filling. Typical terrace and cell construction details are shown. Stormwater letdown structure details and their locations are also included in the plan. According to the plan, filling in Phase I (active area) will be completed by 2001. Subsequent filling operations will be in Phase III, the area due west of Phase I. The next partial closure of Phase I is projected to occur in 2000. The plan also gives closure contours for the entire facility.

The plan is intended to be a guide. The fill location given at a specific time period is based on waste quantity projections. These quantities cannot be guaranteed thus the fill locations are flexible. We will however follow the plans progression of filling. Because the plan will still be in effect at the end of the existing operating permit, the Department request that it be incorporated into its new operating permit at the appropriate time.

Methane Gas Wells:

Attached please find signed and sealed details and plan location for the proposed methane gas vents. As indicated on the plan sheet, six wells will be installed in the northwest quadrant of Phase I, approximately 23 feet below grade. Construction details will be provided to your office after the wells have been

Kim Ford, P.E.
January 27, 1997
Page 2

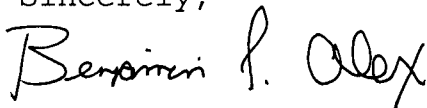
installed. The wells are to provide passive relief of landfill gas and potentially minimize further destruction of intermediate cover. Eventually, the wells will be piped to our proposed landfill gas collection system, as mandated by NSPS/EG regulations.

Alternative Cover Material:

Also attached please find product literature describing alternative cover material Formula 480. Per FDEP approval we are currently using the product, on a trial basis, as daily cover material. If we decide not to use it, we will continue our search for an alternative cover that best suits our operation. With regards to modifying the permit, we request that the modification be in a general sense not endorsing any particular product. Before any alternative cover is used we would first go through your Department for approval.

Additionally, we request that the use of mixed fines from the clean up of our old mulch site be an approved alternative cover and included in permit modification. We have authorization to use the material as described in your November 12, 1996 letter. However, we feel this should be included in the modification for clarity. Thank you for your assistance in this matter. If you require additional information please contact me at (941) 748-5543.

Sincerely,

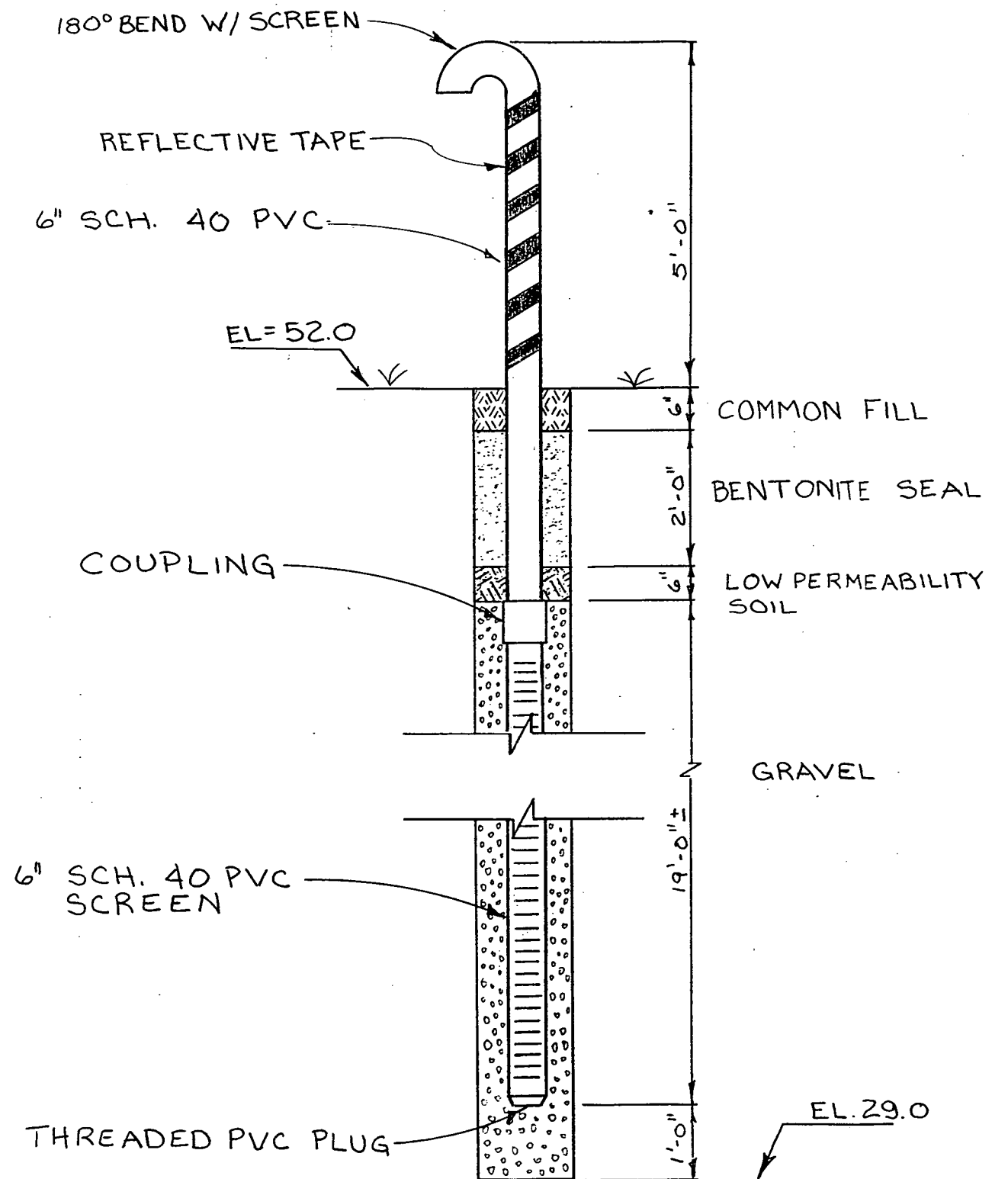


Benjamin L. Alex
Solid Waste Technical Coordinator

cc: Bob Butera, P.E., FDEP
Len Bramble, P.E., Director, Public Works
Dan Gray, Utilities Operations Manager
Gus DiFonzo, Solid Waste Manager *GD*



PLAN VIEW-NEW GAS VENTS LOCATION
NTS



GAS VENT DETAIL
NTS

PLAN/PROFILE - BOOK NOS.							
By	Checked	Date	Designed	BY	CHECKED	DATE	
Plotted			Drawn	LP	RTH	1-97	
Alignment			Quantities				
Right of Way							
Scale Horiz.	Scale Vert.						

LENA ROAD LANDFILL
METHANE GAS VENTS

NOTE: THESE PLANS DO NOT REFLECT A TRUE SURVEY OR RIGHT-OF-WAY SURVEY. THE LOCATION OF THE STREET RIGHT-OF-WAY LINES SHOWN IS APPROXIMATE AND IS BASED ON INFORMATION CONTAINED IN THE SUBDIVISION PLATS, RIGHT-OF-WAY MAPS ON RECORD IN MANATEE COUNTY AND ON TOPOGRAPHIC DATA COLLECTED ON THE ROUTE SURVEY OF THE RIGHT-OF-WAY BY MANATEE COUNTY SURVEY PERSONNEL. CONSEQUENTLY THE RIGHT-OF-WAY LINES SHOWN ARE NOT INTENDED TO INDICATE THE EXACT PROPERTY CORNERS.

REVISION DESCRIPTION & DATE	BY	NO.	Proj. No.
			Dwg. Date 1-97
			Dwg. No.
			Sht. 1 of 1

DISBURSEMENT ACCOUNT

NationsBank®

Board Of County Commissioners
MANATEE COUNTY, FLORIDA

63-063
631

No. 1205179

AMOUNT

*****250.00

*****TWO HUNDRED FIFTY DOLLARS AND 00 CENTS*****

PAY TO
THE
ORDER OF

DATE

01-02-97

DEPT OF ENVIRONMENTAL PROTECTION
3804 COCONUT PALM
TAMPA FL

33619



Stan Stephen

APPROVED IN OPEN SESSION

VOID AFTER 90 DAYS

CHAIRMAN-BOARD OF
COUNTY COMMISSIONERS

ATTEST: R.B. SHORE
CLERK OF CIRCUIT COURT

⑈ 1205179 ⑈ ⑈ 063100633⑈ 0096442417 ⑈

5041-300416

❑ ENVIRO GROUP OF FLORIDA ❑

LIQUID CLAY FORMULA 480

ALTERNATE DAILY COVER

RECEIVED
JAN 29 1997
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____



❑❑ ENVIRO GROUP OF FLORIDA ❑❑

LIQUID CLAY FORMULA 480

SEEDING AND VEGETATION



❑❑❑ ENVIRO GROUP OF FLORIDA ❑❑❑

LIQUID CLAY FORMULA 480

SEEDING AND VEGETATION



❏ ENVIRO GROUP OF FLORIDA ❏

LIQUID CLAY FORMULA 480

DUST CONTROL



❑ ENVIRO GROUP OF FLORIDA ❑

LIQUID CLAY FORMULA 480

LAND SAVER 580 APPLICATION EQUIPMENT



ENVIRO GROUP OF FLORIDA

INTRODUCTION AND HISTORY OF FORMULA 480

Formula 480 is a clay based product developed in 1985 as an alternative daily cover for landfills. In late 1985, testing of Formula 480 began at a hazardous landfill in central Ohio. In 1987, the Ohio Environmental Protection Agency approved Formula 480 for use as a daily cover. Enviro Group, Inc., continued to test and improve this liquid clay product for the next three years to insure its safety and to insure that there would be no residual problems in the future with the use of the product. An EPA inspector was on the premises conducting daily inspections on Formula 480 during these three years. The success of the product throughout all testing and inspections by the EPA inspector lead to the opening of sales of Formula 480 by Enviro Group, Inc., at the beginning of 1991.

To date, Formula 480 has proven its effectiveness in landfills for over 10 years. The product is easily applied, the equipment reasonably priced and easy to operate. The most attractive feature of Formula 480 is the amount of money it will save a landfill while increasing its lifespan.

Formula 480 has never been denied approval in any state as an alternate daily cover. It is currently approved or pending approval in 12 states. In mid 1993, the head of the Florida DER, Ms. Carol Browner (who is now the head of the Federal EPA) approved the use of Formula 480 as a daily cover in the State of Florida. An application for the use of Formula 480 has been filed with the Florida Department of Transportation and approval is expected in late 1996. The product is expected to be used as a replacement for road emulsion in erosion control.

This non toxic clay based product comes in a concentrated form for dilution with water. It is available in 55 gallon drums. The product can be diluted to various ratios including 1 part water to 1 part Formula 480 for applications such as alternate daily cover at landfills or infiltration reduction and more dilute ratios for erosion control, grass seeding, and dust control. Formula 480 may be used in these numerous ways because it is environmentally sound and safe. Formula 480 inhibits the activities of vectors and birds. It controls dust, erosion, odor and blowing debris. The dilution of Formula 480 will allow it to set up from porous and flexible, to durable and waterproof. After application of Formula 480, a blanket crust is created. This flexible crust can be firm enough to decrease leachate production and/or aid in waterproofing a surface and porous enough to allow grass seed to germinate and grow through it.

FORMULA 480

THE BEST DAILY COVER FOR LANDFILLS

Current regulations and requirements governing landfills are making the maintenance of landfill cells more costly due to the need for using 6 inches of soil as daily cover. To offset these costs, it becomes necessary to look for and utilize an alternate daily cover regardless of the quantity of available soil to a landfill facility.

BASIC CRITERIA TO CONSIDER WHEN EVALUATING AN ALTERNATE DAILY COVER:

- A. Does the product meet all Federal and State regulations?
- B. Will the cost of the product be equal to or less than soil?
- C. Will the product perform equally to or better than soil?
- D. Will the labor cost be equal to or less than spreading soil?
- E. What equipment will be needed to apply this product?
- F. Will the equipment costs be nominal or excessive?

ENVIRO GROUP OF FLORIDA PROUDLY ACKNOWLEDGES THAT FORMULA 480 MEETS THE BASIC CRITERIA AS LISTED ABOVE AND DOES THE FOLLOWING:

- * Extends landfill life
- * Eliminates wasted cell space
- * Can be used successfully for erosion and dust control.

ENVIRO GROUP OF FLORIDA

AUGUST 1, 1996

FLORIDA COUNTIES USING LIQUID CLAY FORMULA 480

BREVARD	Charlie Hunter	407 633-1888
HERNANDO	Jim Merritt	904 754-4116
LEON	Judd Curtis	904 487-2890
LEVY	Wayne Hardee	904 486 5127
MARION	Allen Ellison	904 245-4584
OKEECHOBEE (USA WASTE)	Carolyn McCreedy	941 357-0111
OSCEOLA	Lennie Marion	407 847-4487
POLK	Pat Lewis	941 499-2339
VOLUSIA	Bill Gilley	904 736-5982
CITY OF ST CLOUD	Lennie Marion	407 957-7267

SENT **ENVIRO GROUP**
 TO: **913 N. DREXEL**
INDIANAPOLIS, IN 46201

JERRY BACKER
FAX 317/243-6613

ANALYZED **PBS&J Environmental Laboratories**
 BY: **6635 East Colonial Drive**
Orlando, FL 32807

Phone: (407) 277-4443
 Fax: (407) 382-8794

This is to certify that the following samples were analyzed using good laboratory practices to show the following results.

Sample ID: M.PROD (LIQ 480)

Lab ID: **9411071-01** Collected: **11/02/94**

TEST	RESULT	UNITS	METHOD	EXTRACTED	ANALYZED	BY
TCLP METAL EXTRACT 40 CFR 261	*	none	EPA 1311			
TCLP ORGANICS SEMI/PEST EX	*	none	EPA 1311			
TCLP VOLATILE EXTRACTION	*	none	EPA 1311			
TOTAL SOLIDS	49.2	%	EPA 160.3		11/07/94	km
TCLP PESTICIDES 40 CFR 261			EPA 8080	11/04/94		
endrin	<0.5 U	mg/l			11/19/94	jk
heptachlor	<0.5 U	mg/l			11/19/94	jk
lindane	<0.5 U	mg/l			11/19/94	jk
methoxychlor	<0.5 U	mg/l			11/19/94	jk
toxaphene	<0.5 U	mg/l			11/19/94	jk
chlordane	<0.5 U	mg/l			11/19/94	jk
TCLP HERBICIDES 40 CFR 261			EPA 8150	11/10/94		
2,4-d	<0.01 U	mg/l			11/20/94	cd
2,4,5-tr (silvex)	<0.001 U	mg/l			11/20/94	cd
TCLP VOLATILES 40 CFR 261			EPA 8260	11/09/94		
carbon tetrachloride	<0.1 U	mg/l			11/18/94	kb
chlorobenzene	<0.1 U	mg/l			11/18/94	kb
chloroform	<0.1 U	mg/l			11/18/94	kb
1,2-dichloroethane	<0.1 U	mg/l			11/18/94	kb
1,1-dichloroethylene	<0.1 U	mg/l			11/18/94	kb
methyl ethyl ketone	<0.1 U	mg/l			11/18/94	kb
tetrachloroethylene	<0.1 U	mg/l			11/18/94	kb
trichloroethylene	<0.1 U	mg/l			11/18/94	kb
benzene	<0.1 U	mg/l			11/18/94	kb
vinyl chloride	<0.1 U	mg/l			11/18/94	kb
TCLP ACIDS/BASE 40 CFR 261			EPA 8270	11/10/94		
o-cresol	<0.1 U	mg/l			11/15/94	si
m-cresol	<0.1 U	mg/l			11/15/94	si
p-cresol	<0.1 U	mg/l			11/15/94	si
1,4-dichlorobenzene	<0.1 U	mg/l			11/15/94	si
2,4-dinitrotoluene	<0.1 U	mg/l			11/15/94	si
hexachlorobenzene	<0.1 U	mg/l			11/15/94	si
hexachloro-1,3-butadiene	<0.1 U	mg/l			11/15/94	si
hexachloroethane	<0.1 U	mg/l			11/15/94	si
nitrobenzene	<0.1 U	mg/l			11/15/94	si
pentachlorophenol	<0.1 U	mg/l			11/15/94	si
pyridine	<0.1 U	mg/l			11/15/94	si
2,4,5-trichlorophenol	<0.1 U	mg/l			11/15/94	si
2,4,6-trichlorophenol	<0.1 U	mg/l			11/15/94	si
TCLP METALS SCAN 40 CFR 261			EPA 6010/7471			
arsenic	<0.05 U	mg/l			12/07/94	ms
barium	0.120	mg/l			12/07/94	ms
cadmium	<0.005 U	mg/l			12/07/94	ms
chromium	<0.01 U	mg/l			12/07/94	ms
lead	<0.015 U	mg/l			12/07/94	ms
mercury	<0.0002 U	mg/l			12/07/94	ms
selenium	<0.01 U	mg/l			12/07/94	ms

December 7, 1994 14:12

CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE

Page 2

Sample ID: M.PROD (LIQ 480)

Lab ID: 9411071-01

Collected: 11/02/94

TEST	RESULT	UNITS	METHOD	EXTRACTED	ANALYZED	BY
TCLP METALS SCAN 40 CFR261 silver	<0.01 U	mg/l	EPA6010/7471		12/07/94	ms

ENGINEERING
PLANNING

PBS&J POST,
BUCKLEY,
SCHUH &
JERNIGAN, INC.

December 7, 1994

14:12

CERTIFICATE OF ANALYSIS
SAMPLE SUMMARY

WORKORDER:
9411071

SENT **ENVIRO GROUP**
TO: **913 N. DREXEL**
INDIANAPOLIS, IN 46201

JERRY DACKER
FAX 317/243-6613

ANALYZED **PBS&J Environmental Laboratories**
BY: **6635 East Colonial Drive**
Orlando, Florida 32807

Phone: (407) 277-4443
Fax: (407) 382-8794

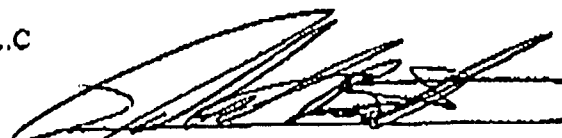
PROJECT: **21 000 20**
PBS&J CONTACT: **FRENCH**
RECEIVED DATE: **11/04/94**
REPORTED DATE: **12/07/94**

WORK DESCRIPTION: **M. PROD (LIQ 480)**
TAKEN BY:
TRANSPORTED:
SAMPLE TYPES:
PO#:

State of Florida Certifications: E83011-Environmental, 83170-Drinking Water and Radiochemistry
CompQAP 860044G

SAMPLE DESCRIPTION	LAB ID	COLLECTED DATE/TIME
M.PROD (LIQ 480)	01	11/02/94

Sample data qualifiers are reported as outlined in 17-160 F.A.C


Laboratory Manager

May 24, 1996

11:02

CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE

Page 1

SENT **ENVIRO GROUP**
TO: **913 N. DREXEL**
INDIANAPOLIS, IN 46201ANALYZED **PBS&J Environmental Laboratories**
BY: **6635 East Colonial Drive**
Orlando, FL 32807**JERRY BACKER**
317/248-1344 FAX 243-6613Phone: (407) 277-4443
Fax: (407) 382-8794*This is to certify that the following samples were analyzed using good laboratory practices to show the following results.***Sample ID: LIQUID CLAY**Lab ID: **9604402-01**

Collected:

TEST	RESULT	UNITS	METHOD	EXTRACTED	ANALYZED	BY
SPLP METAL EXT-do not use	*	NONE	EPA 1312			
SPLP ORGANICS SEMI/PEST EX	*	NONE	EPA 1312			
SPLP VOLATILE EXTRACTION	*	NONE	EPA 1312			
TOTAL SOLIDS	47.4	%	EPA 160.3		04/30/96	gm
SPLP METALS SCAN			EPA 6010			
arsenic	<0.050 U	mg/L			05/11/96	thh
barium	<0.100 U	mg/L			05/11/96	thh
cadmium	<0.005 U	mg/L			05/11/96	thh
chromium	0.028 I	mg/L			05/11/96	thh
lead	<0.015 U	mg/L			05/11/96	thh
selenium	<0.020 U	mg/L			05/11/96	thh
silver	<0.010 U	mg/L			05/11/96	thh
SPLP MERCURY	<0.0004	mg/L	EPA 7470		05/22/96	mr
SPLP PESTICIDES			EPA 8080	05/10/96		
endrin	<0.02U	mg/L			05/13/96	jw
heptachlor	<0.008	mg/L			05/13/96	jw
lindane	<0.4U	mg/L			05/13/96	jw
methoxychlor	<10U	mg/L			05/13/96	jw
toxaphene	<0.5U	mg/L			05/13/96	jw
chlordane	<0.03U	mg/L			05/13/96	jw
SPLP HERBICIDES			EPA 8150	05/13/96		
2,4-d	<0.01 U	mg/L			05/14/96	cd
2,4,5-tr (silvex)	<0.001 U	mg/L			05/14/96	cd
SPLP VOLATILES			EPA 8260	05/03/96		
carbon tetrachloride	<0.1 U	mg/L			05/09/96	si
chlorobenzene	<0.1 U	mg/L			05/09/96	si
chloroform	<0.1 U	mg/L			05/09/96	si
1,2-dichloroethane	<0.1 U	mg/L			05/09/96	si
1,1-dichloroethylene	<0.1 U	mg/L			05/09/96	si
methyl ethyl ketone	<0.1 U	mg/L			05/09/96	si
tetrachloroethylene	<0.1 U	mg/L			05/09/96	si
trichloroethylene	<0.1 U	mg/L			05/09/96	si
benzene	<0.1 U	mg/L			05/09/96	si
vinyl chloride	<0.1 U	mg/L			05/09/96	si
SPLP ACIDS/BASE			EPA 8270	05/10/96		
o-cresol	<0.1 U	mg/L			05/13/96	kb
m-cresol	<0.1 U	mg/L			05/13/96	kb
p-cresol	<0.1 U	mg/L			05/13/96	kb
1,4-dichlorobenzene	<0.1 U	mg/L			05/13/96	kb
2,4-dinitrotoluene	<0.1 U	mg/L			05/13/96	kb
hexachlorobenzene	<0.1 U	mg/L			05/13/96	kb
hexachloro-1,3-butadiene	<0.1 U	mg/L			05/13/96	kb
1,1,1-trichloroethane	<0.1 U	mg/L			05/13/96	kb
benzene	<0.1 U	mg/L			05/13/96	kb
pentachlorophenol	<0.1 U	mg/L			05/13/96	kb
pyridine	<0.1 U	mg/L			05/13/96	kb
2,4,5-trichlorophenol	<0.1 U	mg/L			05/13/96	kb

MAY-28-1996 15:27

ENVIRO GROUP

317 359 8910 P.04

May 24, 1996

11:02

CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE

Page 2

Sample ID: LIQUID CLAY

Lab ID: 9604402-01

Collected:

TEST	RESULT	UNITS	METHOD	EXTRACTED	ANALYZED	BY
SPLP ACIDS/BASE 2,4,6-trichlorophenol	<0.1 U	mg/L	EPA 8270	05/10/96	05/13/96	kb

MAY-28-1996 15:26

ENVIRO GROUP

317 359 8910 P.02

PBS&J POST,
BUCKLEY,
& SCHUH &
JERNIGAN, INC.

ENGINEERING
PLANNING

May 24, 1996

09:20

CERTIFICATE OF ANALYSIS
SAMPLE SUMMARY

WORKORDER:
9604402

SENT *ENVIRO GROUP*
TO: *913 N. DREXEL*
INDIANAPOLIS, IN 46201

JERRY BACKER
317/248-1344 FAX 243-6613

ANALYZED *PBS&J Environmental Laboratories*
BY: *6635 East Colonial Drive*
Orlando, Florida 32807

Phone: (407) 277-4443
Fax: (407) 382-8794

PROJECT: 21 000 20
PBS&J CONTACT: *FRENCH*
RECEIVED DATE: 04/26/96
REPORTED DATE: 05/24/96

WORK DESCRIPTION: *SPLP*
TAKEN BY:
TRANSPORTED:
SAMPLE TYPES:
PO#:

State of Florida Certifications: E83011-Environmental, 83170-Drinking Water and Radiochemistry
CompQAP 860044G

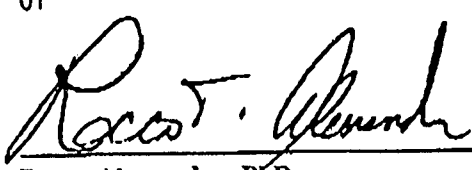
SAMPLE DESCRIPTION

LAB ID

COLLECTED DATE/TIME

LIQUID CLAY

01


Rocco Alessandro, PhD
Laboratory Director

MATERIAL SAFETY DATA SHEET
May be used to comply with
OSHA's Hazard communication
Standard, 29 CFR 1910.1200.
Standard must be consulted
for specific requirements.

U.S. DEPARTMENT OF LABOR
Occupational Safety And Health
Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

H.M.I.S. RATING
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
PERSONAL PRO-
TECTIVE EQUIP.:

IDENTITY (as used on label and list)

Liquid Clay Concentrate

NOTE: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION I

Manufacturer's Name
MONSEY PRODUCTS COMPANY

Emergency Telephone Number
610-933-8888

Address (Number, Street, City, State, and ZIP Code)
P.O. Box 368

Telephone Number for Information
610-933-8888

COLD STREAM ROAD

Date Prepared Supersedes SHEET # 24
4-25-94 2-20-91

KIMBERTON, PA 19442

Signature of Preparer (optional)

SECTION II--HAZARDOUS INGREDIENTS\IDENTITY INFORMATION

Hazardous Components(Specify Chemical Identity;Common Name(s))	CAS #	OSHA PEL	ACGIH TLV	Other Limits Recommended	%(optional)
			TLV--TWA		
WATER	7732-18-5	--	--		
CLAY	1302-78-9	0.1mg/M ³	50mg/M ³		
ORTHOPHOSPHIC ACID SALT NO.	1012962		N/A	N/A	
CALCIUM METASILICATE	13983-17	NONE ASSIGNED			
ASPHALT	8052-42-4	5mg/M ³			

THERE ARE NO SARA 313 INGREDIENTS IN THIS MATERIAL IN EXCESS OF DEMINIMUS AMOUNTS.

SECTION III--PHYSICAL\CHEMICAL CHARACTERISTICS

Boiling Point	212 deg F	Weight per gallon	9
Vapor Pressure(mm Hg.)	760	Melt Point	N/A
Vapor Density(Air=1)	Heavier	Evaporation Rate(Butyl Acetate=1)	Slower
Solubility in Water	Dried film insoluble - in liquid state - disperses in water.		
Appearance and Odor	Brown-black - no odor		

SECTION IV--FIRE AND EXPLOSION HAZARD DATA

Flash Point(Method Used): None	Flammable Limits	LEL N/A	UEL N/A
Extinguishing Media: Foam, CO ₂ , Dry Chemical, Water Fog			

Special Fire Fighting Procedures: Dried Residue - Firemen should wear masks to avoid breathing by-products of combustion.

Unusual Fire and Explosion Hazards: None

(Reproduce Locally)

OSHA 174, Sept., 1985

SECTION V--REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to Avoid): Strong Oxidants

Hazardous Decomposition or Byproducts:

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

SECTION VI--HEALTH HAZARD DATA

Route(s) of Entry: Inhalation? YES Eyes? YES Skin? YES Ingestion? YES

Health Hazards (Acute and Chronic) and Signs and Symptoms of Exposure:

INHALATION: Prolonged overexposure may cause coughing, shortness of breath, dizziness and intoxication.

EYE CONTACT: May cause moderate irritation, including burning sensation, tearing, redness, or swelling.

SKIN: Certain individuals may show dermatitis or allergenic reactions on repeated contact.

INGESTION: This material may be a health hazard if ingested in large quantities.

Emergency and First Aid Procedures: **INHALATION:** Remove from vapor immediately. If overcome, call a physician. If breathing stopped or irregular, start resuscitation or administer oxygen, as needed.

If in Eyes: Immediately flush eyes with plenty of water for at least 15 minutes and consult physician.

If on Skin: Wash skin thoroughly with soap and water; if drenched, remove and wash clothing before reuse.

If Ingested: Get prompt medical attention.

SECTION VII--PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material Is Released Or Spilled: Keep people away. Recover free liquid. Add absorbent (sand, earth, sawdust, etc.) to spill area. Avoid breathing vapors. Ventilate confined spaces. Open all windows and doors.

Keep products out of sewers and watercourses by diking or impounding, else advise authorities.

Waste Disposal Method:

Assure conformity with applicable disposal regulations.

Precautions to Be Taken in Handling and Storing: Keep containers closed when not in use. Do not handle or store near heat or strong oxidants. "Keep from Freezing." Adequate ventilation required.

Other Precautions: Avoid breathing vapors. Avoid prolonged or repeated contact with skin. Remove contaminated clothing and laundry before reuse. Remove contaminated shoes and thoroughly dry before reuse. Wash skin thoroughly with soap and water after contact.

SECTION VIII--CONTROL MEASURES

Respiratory Protection (Specify Type): None required if good ventilation is maintained. Otherwise wear NIOSH approved respirator where concentrated vapors are encountered.

Ventilation	Local Exhaust: Face Velocity 60fpm
	Special: Use only with adequate ventilation.
	Mechanical (General):
	Other:

Protective Gloves: Use chemical-resistant gloves if needed to avoid repeated or prolonged skin contact.

Eye Protection: Use splash goggles or face shield when eye contact may occur.

Other Protective Clothing Or Equipment: Use chemical-resistant apron or other clothing to avoid repeated or prolonged skin contact.

Work Hygienic Practices:

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing to Other Than The Addressee	
To _____	Location _____
To _____	Location _____
To _____	Location _____
From _____	Code _____

Interoffice Memorandum

TO: District Waste Program Administrators
Solid Waste Permitting Engineers

FROM: Mary Jean Yon, Administrator
Solid Waste Section *MJY*

DATE: June 1, 1992

SUBJECT: Land-Cover 480
Use of Product as Initial Cover

With the help of the Central District, the Department has completed its review and initial trial of Land-Cover 480, a modified liquid clay concentrate intended for use as landfill cover. After reviewing the data submitted by Enviro-Group Inc., and observing the demonstrations conducted at the Tomoka Farms Landfill (Volusia County) and the City of St. Cloud Landfill (Osceola County), we have concluded that this product is acceptable for use as initial cover at landfills in Florida. This product should not be used for intermediate or final cover at landfills. Final approval for a specific landfill will be left to the discretion of the Districts.

Applicants for both new and modified permits must provide reasonable assurance that this product will be properly used and will not result in excess litter or any other nuisance. In addition, the following conditions should be imposed:

1. Only the new product which has been formulated without the use of chromic acid may be used.
2. Should the product formulation be changed, the Department must be notified and given the opportunity to review the product chemistry before the new product is marketed in Florida.
3. For the purposes of initial cover, a minimum of two coats of the product diluted 50% to 60% with water should be applied.

If you have any questions, please feel free to call me at
Suncom: 292-6104.

MJY:lv
cf: Bill Hinkley
Chris McGuire



Department of Environmental Protection

FEB 10 1996

Lawton Chiles
Governor

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

FEB 09 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Jose Urrutia, P.E.
Chambers Waste System of Florida Inc.
10800 N.E. 128th Avenue
Okeechobee, Florida 34972

Okeechobee County
SW - Berman Road Landfill
Permit File

RE: Modification of Permit Number SO 47-211115
File Number SO 47-282660

Dear Mr. Urrutia:

The Department is in receipt of your request to modify the referenced permit. The permit has been modified to allow the use of Formula 480 as alternative daily cover at the above referenced facility. All other conditions shall continue to be in effect. The following conditions must be adhered to:

1. Formula 480 is to be used as an initial cover only and should not be used as an intermediate or final cover at the landfill. This product shall not result in excess litter or any other nuisance.
2. Only the new product which has been formulated without the use of Chromic acid may be used.
3. Should the product formulation be changed, the Department must be notified and given the opportunity to review the product chemistry before the new product is marketed in Florida.
4. For the purposes of initial cover, a minimum of two coats of the product diluted 50% to 60% with water should be applied.

This letter must be attached to the original permit and becomes a part of the permit.

A person whose substantial interests are affected by this modification may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Modification. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

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- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this modification. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This modification is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this modification will not be effective until further Order of the Department.

When the Order (Modification) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Should you have any questions, please contact Mr. Nick Kadiivar of this office, telephone number 407-433-2650, extension 111.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivek Kamath 2/9/96
Vivek S. Kamath Date
Waste Program Administrator
Southeast District

VK/NK/dc

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT MODIFICATION and all copies were mailed before the close of business on FEB 09 1996 to the listed persons.

FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

D. Castiglione FEB 09 1996
Clerk Date

Copies furnished to:

Kathy Anderson, SW/TLH
Jeff Braswell, OGC/TLH

ADVANTAGES OF LIQUID CLAY FORMULA 480

Liquid Clay 480 provides some unique advantages over soil as daily cover and other erosion and control products within a facility:

ENVIRONMENTAL ADVANTAGES

»» INCREASES LANDFILL CAPACITY AND LIFE SPAN ««

»» NON-TOXIC ««

»» NON-COMBUSTIBLE ««

»» NON-HAZARDOUS ««

»» DOES NOT ATTRACT BIRDS OR VECTORS ««

»» CONTROLS: «

» EROSION «

» DUST «

» ODORS «

» FLYING LITTER «

ECONOMIC ADVANTAGES

»» REDUCES LABOR COST ««

»» CHEAPER THAN DIRT ««

»» PROVIDES ADDITIONAL TIPPING FEE REVENUE ««

»» CONSERVES EARTH-MOVING EQUIPMENT ««

»» EASILY APPLIED ««

»» PROVIDES TOTAL COVERAGE ««