Board of County Commissioners

Department of Public Works

Post Office Box 167, Lecanto, Florida 34460

(904) 746-4107 — Fax (904) 746-1203

October 20, 1995

117956.28.01

Kim B. Ford, P.E.
Solid Waste Section
Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

RECEIVED
OCT 26 1995
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

Dear Mr. Ford:

Subject: Citrus County Central Landfill
Phase 1 Operating Permit Renewal
Pending Permit Number.: SO09-274381

The purpose of this correspondence is to provide the information requested in your letter dated August 15, 1995 to renew the operating permit for Phase 1 of the Citrus County Central Landfill. As you suggested in your letter dated August 28, 1995, this information is being provided as a supplement to the permit application we previously submitted on May 31, 1995 for the Citrus County Central Landfill Phase 2 Expansion. As such, it is our understanding that:

- Your office is accepting the referenced previous application for the Phase 2 Expansion as an application for the Phase 1 operating permit renewal.
- Information in the referenced previous application which is not applicable to Phase 1 operations is not considered as part of the Phase 1 operating permit renewal application.
- Phase 2 information in the referenced previous application which is applicable to Phase 1 operations is considered to be part of the Phase 1 operating permit renewal application.

To help clarify the subject application for the Phase 1 operating permit renewal, we have provided a revised permit application form in Attachment A. This form is been modified from the form submitted on May 31, 1995 to reflect an application for renewal of an operations permit instead of an application for construction and operations of the Phase 2 expansion.

Your requests for additional information from your August 15, 1995 letter are restated below with our response.

Request No. 1 *Please provide information to demonstrate that each of the prohibitions of FAC 62-701.300 will not be violated.*

Response No. 1 Specific information to demonstrate that each of the prohibitions of Rule 62-701.300, FAC was not provided in the previous application because neither Chapter 62-701, FAC or the State of Florida Department of Environmental Protection Solid Waste Management Facility Permit Application and Instructions Forms [FDEP Form # 62-701.900(1)] require a specific demonstration of compliance with the prohibitions. Compliance with the prohibitions is demonstrated throughout the permit application and supporting documentation. Each of the prohibitions is discussed in Attachment B to this correspondence to assist your office in locating the related information in the permit application.

Request No. 2 *Item D.13. Please provide proof of publication of notice of application as per FAC 62-701.320(8), see attachment.*

Response No. 2 Proof of publication of the notice of application is provided in Attachment C to this correspondence.

Request No. 3 *Item D.14. Please provide confirmation from DOT that there are no airports within five miles of the landfill.*

Response No. 3 Confirmation from the Florida Department of Transportation (FDOT) that there are no airports within five miles of the landfill is provided in Attachment D to this correspondence

Request No. 4 *Item E.3. and 4. Please provide the site plans and cross-sections for all trenching and disposal areas. Cross-sections are requested for each disposal area in six-months increments to show the sequence of filling for at least 5 years and not more than 10 years. A Phase 1 only operation plan is required since Phase 2 has not been constructed. A permit modification may be required for phase 2 operation upon completion of construction.*

Response No. 4 Site plans and cross sections for each 6-month interval of filling for Phase 1 of the Citrus County Central Landfill are included in Attachment E to this correspondence. The volume of each 6-month increment of filling is summarized in the table below and is consistent with the projected waste volumes in the Citrus County Central Landfill Site Master Plan and the waste density of 1,000 pounds per cubic yard currently being achieved at the facility. As shown in the table and the figures, filling of Phase 1 will be completed in approximately two and a half years. Phase 1A of the facility will be operated after Phase 1 is filled. Phase 1A operations will be permitted through a permit to construct and operate, which will be submitted to your office later this year.

Summary of Six Month Filling Sequences for Phase 1		
Time Interval (months)	**Volume Filled (cubic yards)**	**Volume Remaining in Phase 1 (cubic yards)**
0	---	350,000
6	68,000	282,000
12	68,000	214,000
18	70,000	144,000
24	70,000	74,000
30	72,000	2,000

Request No. 5 *Item F.2. Please provide documentation to demonstrate DEP approval for the setback of 75 feet or authorization by the owner for the County's use of the entire landfill setback of 100 feet as required by FAC 62-701.340(4) (b).*

Response No. 5 Authorization by the adjacent property owner for the County's use of the entire landfill setback of 75 feet was obtained prior to the start of Phase 1 construction and operations. A copy of this documentation is included in Attachment F to this correspondence.

Request No. 6 *Items G, H, and I. These parts are not required as part of this application for the Phase 1 operation permit renewal. These parts are required as part of the application for the Phase 2 construction permit which has not been submitted for review.*

Response No. 6 It is our understanding that Parts G, H, and I are not part of the operation permit renewal application. These parts will be resubmitted with the construction and operations permit application for the Phase 1A expansion.

Request No. 7. *Please provide a slope stability analysis for the Phase I north slope. Figure G-1 indicates that this slope should be 6:1 or flatter but is actually 2:1. Please explain this deviation from the previously approved plans.*

Response No. 7 Filling of the north slope and the associated stability was addressed in our application for a modified Phase 1 operations permit submitted to your office on September 14, 1995.

Request No. 8 *Item K.1. Please provide documentation that the landfill will have at least one trained operator and one spotter at each working face as required by FAC 62-701.500(1). Training certificates and work schedules are requested for all trained operators.*

Response No. 8 Training certificates for operators are included in Attachment G to this correspondence. The landfill has at least one trained operator on site at all times the facility is open, which includes 7 a.m. to 5 p.m. Monday through Friday and 7 a.m. to 3 p.m. on Saturdays. The current work schedule for operators is provided in Attachment H. The landfill will have at least one spotter at the facility consistent with the regulations. Scale house and compactor operators are trained to perform load inspection and waste suitability screening. Both positions are staffed at all times the site is open. The compactor operator is responsible to evaluate each load visually as it is dumped and serves as the spotter at the working face of the facility.

Request No. 9 *Item K.2.b. Please describe contingency plan for waste handling and disposal in case of a fire.*

Response No. 9 Waste loads which arrive at the landfill on fire are not deposited at the working face. They are deposited away from the working face on an area which has previously been covered with daily soil cover. The load is then spread out and covered with daily soil cover to extinguish the fire. If a fire does occur at the landfill working face, a temporary area will be identified as far away from the fire as possible, but still within the limits of the lined disposal area where daily soil cover has previously been placed. Berms will be constructed around the temporary area using onsite equipment and soil materials from the onsite stockpile. Solid waste entering the facility will be placed in the temporary area until the fire is extinguished. Then the waste will be transported from the temporary area to the working face using onsite equipment. The soil berms around the temporary area will then be leveled and spread out over the surface at the temporary area.

Request No. 10 *Item K.2.c. Please describe the method of handling and temporary storage of household hazardous wastes such as paint and insecticides that are discovered.*

Response No. 10 In accordance with 40 CFR 261.4(b), household waste (any material derived from households) are exempt from being a hazardous waste.

Request No. 11 *Item K.2.g. Please describe the expected density of waste following compaction with a "10-ton" compactor.*

Response No. 11 We expect that approximately 1,000 pounds of compacted solid waste will be placed per cubic yard of landfill using the procedures described in Section 2.g of the previously submitted operations plan.

Request No. 12 *Item K.2.h. Please describe methods used to minimize leachate generation and the mixing of stormwater with leachate such as the use of temporary berms around the working face.*

Response No. 12 Leachate generation will be minimized by only operating a single working face and keeping the working face as small as possible. Daily and/or intermediate cover will be placed with slopes to promote stormwater runoff. The mixing of stormwater with leachate will be minimized by grading the daily and/or intermediate cover away from the working face and by using soil berms to direct storm water run off away. Gutters and lined conveyance ditches will also be used to collect and transport storm water to stormwater management facilities.

Request No. 13 *Item K..6. Please describe the method of handling and temporary storage of unauthorized wastes such as car batteries and waste tires that are discovered. Please provide the format for recording inspection results from the load checking program and documents used for training to identify unauthorized wastes.*

Response No. 13 Waste tires and batteries that are discovered are removed from the landfill and placed in the onsite temporary storage area for recyclable material. The Citrus County Hazardous Material response team is notified for handling and storage of hazardous materials for disposal in an appropriate offsite facility. More information on the load checking program including sample forms are provided in Attachment I to this correspondence. Training certificates and information used by landfill personnel involved in the load checking program is provided in Attachment J.

Request No. 14 *Item K.7. Please provide plan and cross-section details for a typical working face with berms in place to control leachate.*

Response No. 14 A typical working face is shown on the figures in Attachment K.

Request No. 15 *Item K. 7.j. Please describe erosion control procedures such as grassing or sodding intermediately covered areas for side slopes stabilization to prevent waste exposure and the subsequent discharge of leachate. Please provide plans and cross-section details for temporary down drains and benches for stormwater conveyance.*

Response No. 15 Intermediately covered areas subject to erosion will be seeded with grass appropriate to the season as needed to control erosion. Yard waste mulch is also

used to help control erosion. Plans and sections of side slope benches for stormwater conveyance are shown on the figures in Attachment E to this correspondence. An example of a down drain system that is being used was previously submitted to your office on April 7, 1995 as a minor modification request for the exiting Phase 1 operating permit. The proposed gutter system was included in a minor permit modification to the Phase 1 operating permit by your office on May 18, 1995. Plans and sections of the gutter down drain system are provided in Attachment L to this correspondence.

Request No. 16 *Item K. 8.a. Please describe methods and devices used to measure the depth of leachate over the liner.*

Response No. 16 Phase 1 of the Citrus County Central Landfill was constructed in accordance with the facility's FDEP construction permit. The leachate management system has performed satisfactory and consistent with expectations to limit head on the lining in accordance with applicable design and regulatory requirements. There are no provisions incorporated into the facility to directly measure the depth of leachate over the lining system. The only potential access to the drainage layer over the lining is through clean outs at the leachate collection trenches. However, there are no regulated criteria for leachate levels in these areas. There are no available methods to provide a measurement of leachate levels over the lining which do not seriously jeopardize the integrity of the lining. Performance of the leachate management system during Phase 1 operations will be based on system flow monitoring described in Section 8.b of the previously submitted operations plan and water quality monitoring as described in the previously submitted water quality monitoring plan.

Request No. 17 *Item K. 8.b. Please describe the leachate removal rate, pump rates, pump control settings and scheduled maintenance. Please describe limiting factors that may affect the performance of any component of the leachate management plan and a contingency plan for corrective actions. Please provide the format for record keeping and performance evaluations.*

Response No. 17 Leachate removal rates and pump information are provided in Attachment M to this correspondence. Daily maintenance on each leachate pump station includes reading flow meters and making sure each pump is operational. Pumping rates and electrical draw will be confirmed semiannually. If these tests indicate significantly reduced performance, the pumps are pulled for inspection and repair. A replacement pump is installed while the repairs are being made. There are no expected limiting factors to affect performance of the leachate management plan. However, there is a contingency plan for leachate management as described in Section 8.c of the previously submitted operations plan.

Request No. 18 *Item K. 8.d. Please agreements for off-site discharge and treatment of leachate.*

Response No. 18 Agreements for the offsite discharge and treatment of leachate are provided in Attachment N to this correspondence.

Request No. 19 *Item K. 9. Please describe the routine gas monitoring program for the landfill.*

Response No. 19 The routine gas monitoring program for Phase 1 is described in Attachment O to this correspondence.

Request No. 20 *Item K.10. Please provide typical plan and cross-section details for each type of stormwater conveyance listed. Please describe expected maintenance for each type of conveyance.*

Response No. 20 Stormwater conveyance facilities are those that are already constructed at the Phase 1 facility. Plans and cross sections of these facilities, including as-built drawings and modifications, have previously been submitted to your office. Please contact us if your are in need of another copy of the Phase 1 drawings and we will send them to you. Expected maintenance for the stormwater facilities is described in Section 10.b of the previously submitted operations plan.

Request No. 21 *Item K.11.h. Please describe each sign that indicates operating authority, traffic flow, hours of operation and disposal restrictions.*

Response No. 21 A photograph of signs is provided in Attachment P to this correspondence.

Request No. 22 *Item Q. Please provide your response to Ms. Susan Pelz's concerns in her August 15, 1995 letter attached. Please contact Ms. Pelz at (813) 744-6100, extension 386, for further clarification regarding this item.*

Response No. 22 Our response to Ms. Pelz concerns was previously provided to your office in a October 2, 1995 correspondence from Mr. Bo Bruner of CH2M HILL.

Request No. 23 *Please provide your response to Ms. Allison Amram's concerns in her August 15, 1995 memorandum attached. You may contact Ms. Amram at (813) 744-6100, extension 336.*

Response No. 22 We have been in contact with Ms. Amram and responded to her concerns by written correspondence dated September 18, 1995; through a meeting at her office on September 19, 1995; and through written correspondence on October 16, 1995.

As requested during our previous conversations, we are sending three signed and sealed originals of this correspondence to your office and one copy to Mr. Robert Butera - FDEP Tamps. Please contact us if you have any questions or need any additional information.

Sincerely,

Citrus County

Susan J. Metcalfe, P.G.
Director, Division of Solid Waste Management

CH2M HILL

Gary L. Panozzo, P.E.
Geoenvironmental Engineer

LET007.DOC
c: Gary W. Kuhl, Dir. Dept. Public Works
John Wood, CH2M HILL/DFB
Robert Butera, FDEP Tampa

Attachment A
Permit Application Form

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DER Form # 17-701.900(1)
Form Title Solid Waste Mgmt. Facilities Permit
Effective Date _____
DER Application No. _____
(Filled by DER)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOLID WASTE MANAGEMENT FACILITY PERMIT

APPLICATION INSTRUCTIONS AND FORMS

INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT PERMIT

I. GENERAL

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Rule 17-701. A minimum of six copies of the application shall be submitted to the Department District Office having jurisdiction over the facility. The appropriate fee in accordance with Chapter 17-4, FAC, and Rule 17-701.320(5)(c), FAC, shall be submitted with the application by check made payable to the Department of Environmental Regulation (DER).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

II. Application Parts Required for Construction and Operation Permits

A. Landfills and Ash Monofills - Submit parts A,B, D through R, and T
B. Asbestos Monofills - Submit parts A,B,D,E,F,I,K, M through Q, and T
C. Industrial Solid Waste Facilities - Submit parts A,B, D through Q, and T
D. Volume Reduction Facilities - Submit parts A,C,D,S, and T
E. Materials Recovery Facilities - Submit parts A,C,D,S, and T

NOTE: Portions of some parts may not be applicable.

NOTE: For facilities that have been satisfactorily constructed in accordance with their construction permit,the information required for A,B,C,D, and E type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

III. Application Parts Required for Closure Permits

A. Landfills and Ash Monofills - Submit parts A,B, N through R, and T
B. Asbestos Monofills - Submit parts A,B, M through Q, and T
C. Industrial Solid Waste Facilities - Submit parts A,B, N through Q, and T
D. Volume Reduction Facilities - Submit parts A,C,S, and T
E. Materials Recovery Facilities - Submit parts A,C,S, and T

NOTE: Portions of some parts may not be applicable.

IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

V. Application Codes

S	-	Submitted
LOCATION	-	Physical location of information in application
N/A	-	Not Applicable
N/C	-	No Substantial Change

VI. LISTING OF APPLICATION PARTS

PART A	-	GENERAL INFORMATION
PART B	-	DISPOSAL FACILITY GENERAL INFORMATION
PART C	-	MATERIALS RECOVERY/VOLUME REDUCTION FACILITY GENERAL INFORMATION
PART D	-	SOLID WASTE MANAGEMENT FACILITY PERMIT GENERAL REQUIREMENTS
PART E	-	LANDFILL PERMIT GENERAL REQUIREMENTS
PART F	-	GENERAL CRITERIA FOR LANDFILLS
PART G	-	LANDFILL CONSTRUCTION REQUIREMENTS
PART H	-	HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS
PART I	-	GEOTECHNICAL INVESTIGATION REQUIREMENTS
PART J	-	VERTICAL EXPANSION OF LANDFILLS
PART K	-	LANDFILL OPERATION REQUIREMENTS
PART L	-	WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS
PART M	-	SPECIAL WASTE HANDLING REQUIREMENTS
PART N	-	LANDFILL CLOSURE REQUIREMENTS
PART O	-	CLOSURE PROCEDURES
PART P	-	LONG TERM CARE REQUIREMENTS
PART Q	-	FINANCIAL RESPONSIBILITY REQUIREMENTS
PART R	-	CLOSURE OF EXISTING LANDFILL REQUIREMENTS
PART S	-	MATERIALS RECOVERY FACILITY REQUIREMENTS
PART T	-	CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Please Type or Print

A. GENERAL INFORMATION

1. Type of facility:

Disposal [X]

Class I Landfill	[X]	Ash Monofill	[ ]
Class II Landfill	[ ]	Asbestos Monofill	[ ]
Class III Landfill	[ ]	Industrial Solid Waste	[ ]
Other	[ ]	_____	

Volume Reduction [ ]

Incinerator	[ ]	Pulveriser / Shredder	[ ]
Composting	[ ]	Compactor/Bailing Plant	[ ]
Materials Recovery	[ ]	Energy Recovery	[ ]
Other	[ ]	_____	

2. Type of application:

Construction	[ ]	Construction/Operation	[ ]
Operation	[X]	Closure	[ ]

3. Classification of application:

New	[ ]	Substantial Modification	[ ]
Renewal	[X]	Minor Modification	[ ]

4. Facility name: Citrus County Central Landfill Phase 1

5. DER ID number: SO09-274381 County: Citrus

6. Facility location (main entrance): State Road 44 between Lecanto and Inverness, Florida

7. Location coordinates:

Section: 1 Township: 19S Range: 18E.

UTMs: Zone _____ _____km E _____ km N

Latitude: 28° 51′ 08 " Longitude: 82° 26′ 38"

8. Applicant name (operating authority): Citrus County Board of County Commissioners

Mailing address: P.O. Box 340 Lecanto FL 34460
Street or P.O. Box City State Zip

Contact person: Ms. Susan Metcalfe, P.G. Telephone: (904) 746-5000

Title: Solid Waste Management Division Director

9. Authorized agent/Consultant: CH2M HILL

Mailing address: 4350 W. Cypress Street, Suite 600, Tampa, FL 33607
Street or P.O. Box City State Zip

Contact person: Gary Panozzo, P.E. Telephone: (813)874-0777

Title: Project Manager

10. Landowner (if different than applicant): _____

Mailing address: _____
Street or P.O. Box City State Zip

Contact person: _____ Telephone: (___) _____

11. Cities, towns and areas to be served: Citrus County

12. Population to be served:

Current: 100,829 (FY93-94) Five-Year Projection: 119,840 (FY98-99)

13. Volume of solid waste to be received: (See Table Below) tons/year

14. Date site will be ready to be inspected for completion: N/A

15. Estimated life of facility: 2.5 years

16. Estimated costs:

Total Construction: $ N/A Closing Costs: $2,283,329

17. Anticipated construction starting and completion dates:

From: N/A To: N/A

Estimated Volume of Solid Waste Received	
Fiscal Year	Volume (tons/year)
95-96	68,115
96-97	70,110
97-98	72,105
Note: Volumes included in this table are only an estimate. Actual volumes are expected to vary.	

B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned by this application:

The Citrus County Central Landfill Phase 1 operations includes the filling of an existing 15.5 acre Class I municipal solid waste landfill.

2. Facility site supervisor: David Chamblin

Title: Section Chief Telephone: (904) 746-5000

3. Disposal area: Total 15.6 acres; Used 15.6 acres; Available 0 acres

4. Weighing scales used: Yes [X] No [ ]

5. Security to prevent unauthorized use: Yes [X] No [ ]

6. Charge for waste received: _____ $/yds³ 60 $/ton

7. Surrounding land use, zoning:

Residential	[ ]	Industrial	[X]	
Agricultural	[ ]	None	[ ]	
Commercial	[X]	Other	[X]	Conservation

8. Types of waste received:

Residential	[X]	C & D debris(mixed loads only)	[X]
Commercial	[X]	Shredded/cut tires	[X]
Incinerator / WTE ash	[ ]	Yard trash	[X]
Treated biohazardous	[ ]	Septic tank	[ ]
Water treatment sludge	[ ]	Industrial	[X]
Air treatment sludge	[ ]	Industrial sludge	[ ]
Agricultural	[ ]	Domestic sludge	[X]
Asbestos	[X]		
Other	[ ]		

9. Salvaging permitted: Yes [ ] No [X]

10. Attendant: Yes [X] No [ ] Trained operator: Yes [X] No [ ]

11. Spotters: Yes [X] No [ ] Number of spotters used: Minimum of one

12. Site located in: Floodplain [ ] Wetlands [ ] Other [ ] _____

13. Property recorded as a Disposal Site in County Land Records: Yes [X] No [ ]

14. Days of operation: Monday - Saturday

15. Hours of operation: Mon-Fri.: 7:00 am - 4:30 pm, Holidays & Sat.: 7:00 am - 2:30 pm

16. Days Working Face covered: Monday - Saturday

17. Elevation of water table: 7 Ft. NGVD

18. Number of monitoring wells: 12 (Current plus proposed)

19. Number of surface monitoring points: 0

20. Gas controls used: Yes [ ] No [X] Type controls: Active [ ] Passive [ ]

Gas flaring: Yes [ ] No [ ] Gas recovery: Yes [ ] No [ ]

21. Landfill Unit - liner type:

Natural soils	[ ]	Double geomembrane	[ ]
Single clay liner	[ ]	Geomembrane & composite	[ ]
Single geomembrane	[X]	Double composite	[ ]
Single composite	[ ]	None	[ ]
Slurry wall	[ ]		
Other	[ ]		

22. Leachate collection method:

Collection pipes	[X]	Sand layer	[X]
Geonets	[ ]	Gravel layer	[ ]
Well points	[ ]	Interceptor trench	[ ]
Perimeter ditch	[ ]	None	[ ]
Other	[ ]		

23. Leachate storage method:

Tanks	[X]	Surface impoundments	[ ]
Other	[ ]		

24. Leachate treatment method:

Oxidation	[ ]	Chemical treatment	[X]
Secondary	[ ]	Settling	[ ]
Advanced	[X]	None	[ ]
Other	[ ]		

25. Leachate disposal method:

Recirculated	[ ]	Pumped to WWTP	[ ]
Transported to WWTP	[X]	Discharged to surface water	[ ]
Injection well	[ ]	Evaporation (ie: Perc Pond)	[X]
Other	[ ]		

26. For leachate discharged to surface waters:

Name and Class of receiving water: _____

27. Storm Water:

Collected: Yes [X] No [ ] Type of treatment: Dry Retention

Name and Class of receiving water: None

28. Management and Storage of Surface Waters (MSSW) Permit number or status: _____

Southwest Florida Water Management District #402023.02

C. MATERIALS RECOVERY / VOLUME REDUCTION FACILITY GENERAL INFORMATION

1. Provide brief description of materials recovery / volume reduction facility design and operations planned by this application:

Part C is not applicable to this permit application

2. Facility site supervisor: _____

Title: _____ Telephone: (___) _____

3. Disposal area: Total _____ acres; Used _____ acres; Available _____ acres

4. Security to prevent unauthorized use: Yes [ ] No [ ]

5. Site located in: Floodplain [ ] Wetlands [ ] Other [ ] _____

6. Days of operation: _____

7. Hours of operation: _____

8. Number of operating staff: _____

9. Expected useful life: _____ Years

10. Weighing scales used: Yes [ ] No [ ]

11. Normal processing rate: _____ yd^3/day _____ tons/day _____ gal/day

12. Maximum processing rate: _____ yd^3/day _____ tons/day _____ gal/day

13. Charge for waste received: _____

14. Type of facility (check one or more):

Incinerator	[ ]	Composting	[ ]
Pulverizer / shredder	[ ]	Materials recovery	[ ]
Compactor/bailing	[ ]	Energy recovery	[ ]
Sludge concentration	[ ]	Pyrolysis	[ ]
Other	[ ]	_____	

15. Material recovered, tons/week:

_____	Paper	_____	Glass
_____	Ferrous metals	_____	Non-ferrous metals
_____	Aluminum	_____	Plastics
_____	Other:	_____	

16. Energy recovery, in units shown:

_____	High pressure steam, lb/hr	_____	Chilled water, gal/hr
_____	Low pressure steam, lb/hr	_____	Oil, gal/hr
_____	Electricity, kw/hr	_____	Oil, BTU/hr
_____	Gas, ft^3/hr	_____	Gas, BTU/hr
_____	Other:	_____	

17. Process water management:

Recycled: Yes [ ] No [ ]

Treatment method used: _____

Discharged to: Surface waters [ ] Underground [ ] Other [ ]

Name and Class of receiving water: _____

18. Storm Water:

Collected: Yes [ ] No [ ] Type of treatment: _____

Name and Class of receiving water: _____

19. MSSW Permit number or status: _____

20. Final residue produced:

_____% of normal processing rate

_____% of maximum processing rate

Disposed of at (Site name): _____

21. Supplemental fuel used:

Type: _____ Quantity used/hour: _____

22. Costs:

Estimated operating costs (material-energy revenue): $_____

Total cost/ton: $_____ Net cost/ton: $_____

23. State pollution control bond financing amount: $_____

24. Estimated amount of tax exemptions that will be requested: $_____

D. SOLID WASTE MANAGEMENT FACILITY PERMIT GENERAL REQUIREMENTS (17-701.320, FAC)

S	LOCATION	N/A	N/C		
X	D.1			1.	Six copies, at minimum, of the complete application form, all supporting data and reports; (17-701.320(5)(a), FAC)
X	D.2			2.	Engineering and/or professional certification (signature, date and seal) provided on the applications and all engineering plans, reports and supporting information for the application; (17-701.320(6), FAC)
X	D.3			3.	A letter of transmittal to the Department; (17-701.320(7)(a), FAC)
X	D.4			4.	A completed application form dated and signed by the applicant; (17-701.320(7)(b),FAC)
X	D.5			5.	Permit fee specified in Rule 17-4.050, FAC and Rule 17-701.320(5)(c), FAC in check or money order, payable to the Department; (17-701.320(7)(c),FAC)
X	D.6			6.	An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 1/2 inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graph records or logs of tests and investigations, engineering calculations; (17-701.320(7)(d), FAC)
X	D.7			7.	Operation Plan; (17-701.320(7)(e)1,FAC)
X	D.8			8.	Contingency Plan; (17-701.320(7)(e)2,FAC)
				9.	Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD showing; (17-702.320(7)(f),FAC)
X	D.9				a. A regional map or plan with the project location;
X	D.9				b. A vicinity map or aerial photograph no more than 1 year old;
X	D.9				c. A site plan showing all property boundaries certified by a registered Florida land surveyor;
X	D.9				d. Other necessary details to support the engineering report.
X	D.10			10.	Proof of property ownership or a copy of appropriate agreements between the facility operator and property owner authorizing use of property; (17-701.320(7)(g),FAC)

S	LOCATION	N/A	N/C		
X	D.11			11.	For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of recycling goals contained in Section 403.706,FS; (17-701.320(7)(h),FAC)
X	D.12			12.	Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders or permit conditions relating to the operation of any solid waste management facility in this state; (17-701.320(7)(i),FAC)
X	D.13			13.	Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (17-702.320(8),FAC)
X	D.14			14.	Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable; (17-701.320(12),FAC)

E. LANDFILL PERMIT GENERAL REQUIREMENTS (17-701.330, FAC)

X	E.1			1.	Vicinity map or aerial photograph no more than 1 year old and of appropriate scale showing land use and local zoning within one mile of the landfill and of sufficient scale to show all homes or other structures, water bodies, and roads other significant features of the vicinity. All significant features shall be labeled; (17-701.330(4)(a),FAC)
X	E.2			2.	Vicinity map or aerial photograph no more than 1 year old showing all airports that are located within five miles of the proposed landfill; (17-701.330(4)(b),FAC)
X	E.3			3.	Plot plan with a scale not greater than 200 feet to the inch showing; (17-701.330(4)(c),FAC)
X	E.3				a. Dimensions;
X	E.3				b. Locations of proposed and existing water quality monitoring wells;
X	E.3				c. Locations of soil borings;
X	E.3				d. Proposed plan of trenching or disposal areas;
X	E.3				e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;
X	E.3				f. Any previously filled waste disposal areas;
X	E.3				g. Fencing or other measures to restrict access.
				4.	Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing; (17-701.330(4)(d),FAC):
X	E.4				a. Proposed fill areas;
X	E.4				b. Borrow areas;
X	E.4				c. Access roads;
X	E.4				d. Grades required for proper drainage;
X	E.4				e. Cross sections of lifts;
X	E.4				f. Special drainage devices if necessary;
X	E.4				g. Fencing;
X	E.4				h. Equipment facilities.

				5.	A report on the landfill describing the following; (17-701.330(4)(e),FAC)
X	E.5			a.	The current and projected population and area to be served by the proposed site;
X	E.5			b.	The anticipated type, annual quantity, and source of solid waste, expressed in tons;
X	E.5			c.	The anticipated facility life;
X	E.5			d.	The source and type of cover material used for the landfill
X	E.6			6.	Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Rule 17-160,FAC; (17-701.330(4)(h),FAC)
X	E.7			7.	Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (17-701.330(4)(i),FAC)

F. GENERAL CRITERIA FOR LANDFILLS (17.701.340,FAC)

X	F.1			1.	Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100-year floodplain where it will restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result is a washout of solid waste; (17-701.340(4)(b),FAC)
X	F.2			2.	Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (17-701.340(4)(c),FAC)
X	F.3			3.	Describe what methods shall be taken to screen the landfill from public view where such screening can practically be provided; (17-701.340(4)(d),FAC)

G. LANDFILL CONSTRUCTION REQUIREMENTS (17-701.400,FAC)

S	LOCATION	N/A	N/C		
___	_____	X	___	1.	Describe how the landfill shall be designed so that solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill; (17-701.400(2),FAC)
				2.	Landfill liner requirements; (17-701.400(3),FAC)
				a.	General construction requirements; (17-701.400(3)(a),FAC):
___	_____	X	___	(1)	Provide test information and documentation to ensure the liner will be constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure;
___	_____	X	___	(2)	Document foundation is adequate to prevent liner failure;
___	_____	X	___	(3)	Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;
___	_____	X	___	(4)	Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;
___	_____	X	___	(5)	Installed to cover all surrounding earth which could come into contact with the waste or leachate.
				b.	Composite liners; (17-701.400(3)(b),FAC)
___	_____	X	___	(1)	Upper geomembrane thickness and properties;
___	_____	X	___	(2)	Design leachate head for primary LCRS including leachate recirculation if appropriate;
___	_____	X	___	(3)	Design thickness in accordance with Table A and number of lifts planned for lower soil component.
				c.	Double liners; (17-701.400(3)(c),FAC)
___	_____	X	___	(1)	Upper and lower geomembrane thicknesses and properties;
___	_____	X	___	(2)	Design leachate head for primary LCRS to limit the head to one foot above the liner;
___	_____	X	___	(3)	Lower geomembrane sub-base design;

S	LOCATION	N/A	N/C	
___	_____	X	___	(4) Leak detection and secondary leachate collection system minimum design criteria (k $\geq$ 1 cm/sec, head on lower liner $\leq$ 1 inch, head not to exceed thickness of drainage layer);
				d. Standards for geomembranes; (17-701.400(3)(d),FAC)
___	_____	X	___	(1) Field seam test methods to ensure all field seams are at least 90 percent of the yield strength for the lining material;
___	_____	X	___	(2) Design of 24-inch-thick protective layer above upper geomembrane liner;
___	_____	X	___	(3) Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above 24-inch-thick protective layer.
				e. Geosynthetic specification requirements; (17-701.400(3)(e),FAC)
___	_____	X	___	(1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program;
___	_____	X	___	(2) Material specifications for geomembranes, geotextiles, geogrids, and geonets;
___	_____	X	___	(3) Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and nondestructive seam testing, seam testing location, frequency, procedure, sample size and geomembrane repairs;
___	_____	X	___	(4) Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembrane and procedures for lining system acceptance;
___	_____	X	___	(5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials;
___	_____	X	___	(6) Geonet specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials;

S	LOCATION	N/A	N/C	
				f. Standards for soil components (17-701.400(3)(f),FAC):
___	_____	X	___	(1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers;
___	_____	X	___	(2) Demonstration of compatibility of the soil component with actual or simulated leachate in accordance with EPA Test Method 9100 or an equivalent test method;
___	_____	X	___	(3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners;
				(4) Specifications for soil component of liner including at a minimum:
___	_____	X	___	(a) Allowable particle size distribution, Atterberg limits, shrinkage limit;
___	_____	X	___	(b) Placement moisture and dry density criteria;
___	_____	X	___	(c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate;
___	_____	X	___	(d) Minimum thickness of soil liner;
___	_____	X	___	(e) Lift thickness;
___	_____	X	___	(f) Surface preparation (scarification);
___	_____	X	___	(g) Type and percentage of clay mineral within the soil component;
___	_____	X	___	(5) Procedures for constructing and using a field test section to document the desired saturated hydraulic conductivity and thickness can be achieved in the field.
				3. Leachate collection and removal system (LCRS); (17-701.400(4),FAC)
				a. The primary and secondary LCRS requirements; (17-701.400(4)(a),FAC)
___	_____	X	___	(1) Constructed of materials chemically resistant to the waste and leachate;
___	_____	X	___	(2) Have sufficient mechanical properties to prevent collapse under pressure;

S	LOCATION	N/A	N/C	
___	_____	X	___	(3) Have granular material or synthetic geotextile to prevent clogging;
___	_____	X	___	(4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas;
				b. Primary LCRS requirements; (17-701.400(4)(b),FAC)
___	_____	X	___	(1) Bottom 12 inches having hydraulic conductivity $\geq 1 \times 10^{-3}$ cm/sec;
___	_____	X	___	(2) Total thickness of 24 inches of material chemically resistant to the waste and leachate;
___	_____	X	___	(3) Bottom slope design to accommodate for predicted settlement;
___	_____	X	___	(4) Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load and protection of geomembrane liner.
				4. Leachate recirculation; (17-701.400(5),FAC)
___	_____	X	___	a. Describe general procedures for recirculating leachate;
___	_____	X	___	b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water;
___	_____	X	___	c. Describe procedures for preventing perched water conditions and gas buildup;
___	_____	X	___	d. Describe alternate methods for leachate management when it cannot be recirculated due to weather or runoff conditions, surface seeps, wind-blown spray, or elevated levels of leachate head on the liner;
___	_____	X	___	e. Describe methods of gas management to control odors and migration of methane;
___	_____	X	___	f. If leachate irrigation is proposed, describe treatment methods and standards for leachate treatment prior to irrigation over final cover and provide documentation that irrigation does not contribute significantly to leachate generation.

S	LOCATION	N/A	N/C	
				5. Leachate storage tanks and leachate surface impoundments; (17-701.400(6),FAC)
				a. Surface impoundment requirements; (17-701.400(6)(b),FAC)
___	_____	X	___	(1) Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water;
___	_____	X	___	(2) Designed in segments to allow for inspection and repair as needed without interruption of service;
				(3) General design requirements;
___	_____	X	___	(a) Double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane;
___	_____	X	___	(b) Leak detection and collection system with hydraulic conductivity $\geq$ 1 cm/sec;
___	_____	X	___	(c) Lower geomembrane placed on subase 6 inches thick with k $\leq$ $1x10^{-5}$cm/sec
___	_____	X	___	(d) Design calculation to predict potential leakage through the upper liner;
___	_____	X	___	(e) Daily inspection requirements and notification and corrective action requirements if leakage rates exceed that predicted by design calculations;
___	_____	X	___	(4) Description of procedures to prevent uplift, if applicable;
___	_____	X	___	(5) Design calculations to demonstrate minimum two feet of freeboard will be maintained;
___	_____	X	___	(6) Procedures for controlling vectors and offsite odors.
				b. Above-ground leachate storage tanks; (17-701.400(6)(c),FAC)
___	_____	X	___	(1) Describe tank materials of construction and ensure foundation is sufficient to support tank;
___	_____	X	___	(2) Describe procedures for cathodic protection if needed for the tank;

S	LOCATION	N/A	N/C	
___	_____	X	___	(3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored;
___	_____	X	___	(4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction;
___	_____	X	___	(5) Describe design to remove and dispose of stormwater from the secondary containment system;
___	_____	X	___	(6) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling;
				(7) Inspections, corrective action and reporting requirements;
___	_____	X	___	(a) Overfill prevention system weekly;
___	_____	X	___	(b) Exposed tank exteriors weekly;
___	_____	X	___	(c) Tank interiors when tank is drained or at least every three years;
___	_____	X	___	(d) Procedures for immediate corrective action if failures detected;
___	_____	X	___	(e) Inspection reports available for department review.
				c. Underground leachate storage tanks; (17-701.400(6)(d),FAC)
___	_____	X	___	(1) Describe materials of construction;
___	_____	X	___	(2) A double-walled tank design system to be used with the following requirements;
___	_____	X	___	(a) Interstitial space monitoring at least weekly;
___	_____	X	___	(b) Corrosion protection provided for primary tank interior and external surface of outer shell;
___	_____	X	___	(c) Interior tank coatings compatible with stored leachate;
___	_____	X	___	(d) Cathodic protection inspected weekly and repaired as needed;
___	_____	X	___	(3) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling and provide for weekly inspections;

S	LOCATION	N/A	N/C	
___	_____	X	___	(4) Inspection reports available for department review.
___	_____	X	___	d. Schedule provided for routine maintenance of LCRS; (17-701.400(6)(e),FAC)
				6. Liner systems construction quality assurance (CQA): (17-701.400(7),FAC)
___	_____	X	___	a. Provide CQA Plan including:
___	_____	X	___	(1) Specifications and construction requirements for liner system;
___	_____	X	___	(2) Detailed description of quality control testing procedures and frequencies;
___	_____	X	___	(3) Identification of supervising professional engineer;
___	_____	X	___	(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project;
___	_____	X	___	(5) State qualifications of CQA professional engineer and support personnel;
___	_____	X	___	(6) Description of CQA reporting forms documents;
___	_____	X	___	b. An independent laboratory experienced in the testing of geosynthetics to perform required testing.
				7. Soil liner CQA (17-701.400(8)FAC)
___	_____	X	___	a. Documentation that an adequate borrow source has been located with test results or description of the field exploration and laboratory testing program to define a suitable borrow source;
___	_____	X	___	b. Description of field test section construction and test methods to be implemented prior to liner installation;
___	_____	X	___	c. Description of field test methods including rejection criteria and corrective measures to ensure proper liner installation.
				8. Surface water management systems; (17-701.400(9),FAC)
___	_____	X	___	a. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off;
___	_____	X	___	b. Details of stormwater control design including retention ponds, detention ponds, and drainage ways;

S	LOCATION	N/A	N/C		
___	_____	X	___	9.	Gas control systems; (17-701.400(10),FAC)
___	_____	X	___		a. Design details for gas control system including collection pipes and vents, and passive venting or vacuum extraction details;
___	_____	X	___		b. Documentation that the gas control system will not impact the liner or leachate control system;
___	_____	X	___		c. Proposed methods of odor control including flaring designs in accordance with Chapter 17-296,FAC;
					d. Description of a routine gas monitoring program to ensure gas control system is operating properly including:
___	_____	X	___		(1) Location of monitoring points;
___	_____	X	___		(2) Requirements for quarterly sampling of all monitoring points;
___	_____	X	___		(3) Description of corrective measures to be completed within 60 days of detection of elevated levels of explosive gases;
___	_____	X	___		e. Description of condensate collection and disposal methods.
				10.	Landfill gas recovery facilities; (17-701.400(11),FAC)
___	_____	X	___		a. Information required in Rules 17-701.320(7) and 17-701.330(4), FAC supplied;
___	_____	X	___		b. Information required in Rule 17-701.600(4), FAC supplied where relevant and practical;
___	_____	X	___		c. Estimate of current and expected gas generation rates and description of condensate disposal methods provided;
___	_____	X	___		d. Description of procedures for condensate sampling, analyzing and data reporting provided;
___	_____	X	___		e. Closure plan provided describing methods to control gas after recovery facility ceases operation;
___	_____	X	___		f. Performance bond provided to cover closure costs if not already included in other landfill closure costs.
___	_____	X	___	11.	For landfills designed in groundwater, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (17-701.400(12),FAC)

H. HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (17-701.410, FAC)

				1.	Submit a hydrogeological investigation and site report including at least the following information:
___	_____	X	___	a.	Regional and site specific geology and hydrogeology;
___	_____	X	___	b.	Direction and rate of groundwater and surface water flow including seasonal variations;
___	_____	X	___	c.	Background quality of ground water and surface water;
___	_____	X	___	d.	Any on-site hydraulic connections between aquifers;
___	_____	X	___	e.	Site stratigraphy and aquifer characteristics for confining layers, semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill;
___	_____	X	___	f.	Site topography and soil characteristics;
___	_____	X	___	g.	Inventory of all public and private water wells within a one-mile radius of the landfill including well top of casing and bottom elevations, name of owner, age and usage of each well, stratigraphic unit screened, well construction technique and static water level;
___	_____	X	___	h.	Description of topography, soil types and surface water drainage systems;
___	_____	X	___	i.	An inventory of all public and private water wells within one mile of the landfill.
___	_____	X	___	j.	Existing contaminated areas on landfill site.
___	_____	X	___	2.	Report signed, sealed and dated by PE or PG.

I. GEOTECHNICAL INVESTIGATION REQUIREMENTS (17-701.420, FAC)

S	LOCATION	N/A	N/C		
___	_____	X	___	1.	Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following:
___	_____	X	___		a. Description of subsurface conditions including soil stratigraphy and ground water table conditions;
___	_____	X	___		b. Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes;
___	_____	X	___		c. Estimates of average and maximum high water table across the site;
					d. Foundation analysis including:
___	_____	X	___		(1) Foundation bearing capacity analysis;
___	_____	X	___		(2) Total and differential subgrade settlement analysis;
___	_____	X	___		(3) Slope stability analysis;
___	_____	X	___		e. Description of method used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions;
___	_____	X	___		f. An evaluation of fault area, seismic impact zones, and unstable areas as described in 40 CFR 258.13, 40 CFR 258.14 and 40 CFR 258.15
___	_____	X	___	2.	Report signed, sealed and dated by PE or PG.

J. VERTICAL EXPANSION OF LANDFILLS (17-701.430,FAC)

S	LOCATION	N/A	N/C		
___	J	X	___	1.	Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill or adversely affect the closure design of the existing landfill;
___	J	X	___	2.	Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 17-701.400,FAC with the exceptions of Rule 17-701.430(1)(c),FAC;
___	J	X	___	3.	Provide foundation and settlement analysis for the vertical expansion;
___	J	X	___	4.	Provide total settlement calculations demonstrating that the final elevations of the lining system, that gravity drainage, and that no other component of the design will be adversely affected;
___	J	X	___	5.	Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability;
___	J	X	___	6.	Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;
___	J	X	___	7.	Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion.

K. LANDFILL OPERATION REQUIREMENTS (17-701.500,FAC)

X	K*	___	___	1.	Provide documentation that landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (17-701.500(1),FAC)
				2.	Provide a landfill operation plan including procedures for: (17-701,500(2),FAC)
X	K*	___	___		a. Designating responsible operating and maintenance personnel;
X	K*	___	___		b. Contingency operations for emergencies;
X	K*	___	___		c. Controlling types of waste received at the landfill;
X	K*	___	___		d. Weighing incoming waste;
X	K*	___	___		e. Vehicle traffic control and unloading;
X	K*	___	___		f. Method and sequence of filling waste;
X	K*	___	___		g. Waste compaction and application of cover;
X	K*	___	___		h. Operations of gas, leachate, and stormwater controls;
X	K*	___	___		i. Water quality monitoring.

*The Citrus County Central Landfill Phase 2 Operations Plan was previously submitted to FDEP and parts applicable to Phase 1 operations are made part of this permit application by reference.

S	LOCATION	N/A	N/C		
X	K*			3.	Provide a description of the landfill operation record to be used at the landfill; details as to location of where various operational records will be kept (i.e. FDEP permit, engineering drawings, water quality records, etc.) (17-701.500(3),FAC)
X	K*			4.	Describe the waste records that will be compiled monthly and provided to the Department quarterly; (17-701.500(4),FAC)
X	K*			5.	Describe methods of access control; (17-701.500(5),FAC)
X	K*			6.	Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized wastes at the landfill; (17-701.500(6),FAC)
				7.	Describe procedures for spreading and compacting waste at the landfill that include: (17-701.500(7),FAC)
X	K*				a. Waste layer thickness and compaction frequencies;
X	K*				b. Special considerations for first layer of waste placed above liner and leachate collection system;
X	K*				c. Slopes of cell working face and side grades above land surface, planned lift depths during operation;
X	K*				d. Maximum width of working face;
					e. Description of type of initial cover to be used at the facility that controls:
X	K*				(1) Disease vector breeding/animal attraction
X	K*				(2) Fires
X	K*				(3) Odors
X	K*				(4) Blowing litter
X	K*				(5) Moisture infiltration
X	K*				f. Procedures for applying initial cover including minimum cover frequencies;
X	K*				g. Procedures for applying intermediate cover;
X	K*				h. Time frames for applying final cover;
X	K*				i. Description of litter policing methods;
X	K*				j. Erosion control procedures.

*The Citrus County Central Landfill Phase 2 Operations Plan was previously submitted to FDEP and parts applicable to Phase 1 operations are made part of this permit application by reference.

S	LOCATION	N/A	N/C		
				8.	Describe operational procedures for leachate management including; (17-701.500(8),FAC)
X	K*			a.	Leachate level monitoring, sampling, analysis and data results submitted to the Department;
X	K*			b.	Operation and maintenance of leachate collection and removal system, and treatment as required;
X	K*			c.	Procedures for managing leachate if it becomes regulated as a hazardous waste;
X	K*			d.	Agreements for off-site discharge and treatment of leachate;
X	K*			e.	Contingency plan for managing leachate during emergencies or equipment problems;
X	K*			f.	Procedures for recording quantities of leachate generated in gal/day;
X	K*			g.	Procedures for comparing precipitation experienced at the landfill with leachate generation rates.
X	K*			9.	Describe routine gas monitoring program for the landfill as required by Rule 17-701.400(10),FAC; (17-701.500(9),FAC)
X	K*			10.	Describe procedures for operating and maintaining the landfill stormwater management system to comply with the standards of Chapters 17-3, 17-302 and 17-25, FAC; (17-701.500(10),FAC)
				11.	Equipment and operation feature requirements; (17-701.500(11),FAC)
X	K*			a.	Sufficient equipment for excavating, spreading, compacting and covering waste;
X	K*			b.	Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;
X	K*			c.	Communications equipment;
X	K*			d.	Personnel shelter and sanitary facilities, first aid equipment;
X	K*			e.	Dust control methods;
X	K*			f.	Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;
X	K*			g.	Litter control devices;
X	K*			h.	Signs indicating operating authority, traffic flow, hours of operation, disposal restriction

*The Citrus County Central Landfill Phase 2 Operations Plan was previously submitted to FDEP and parts applicable to Phase 1 operations are made part of this permit application by reference.

S	LOCATION	N/A	N/C		
X	K*			12.	Provide a description of all-weather access road, inside perimeter road and other roads necessary for access which shall be provided at the landfill; (17-701.500(12),FAC)
				13.	Additional record keeping and reporting requirements; (17-701.500(13),FAC)
X	K*			a.	Records used for developing permit applications and supplemental information maintained for the design period of the landfill;
X	K*			b.	Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years;
X	K*			c.	Background water quality records shall be maintained for the design period of the landfill;
X	K*			d.	Maintain annual estimates of the remaining life of constructed landfills and of other permitted areas not yet constructed and submit this estimate annually to the Department.

*The Citrus County Central Landfill Phase 2 Operations Plan was previously submitted to FDEP and parts applicable to Phase 1 operations are made part of this permit application by reference.

L. WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS (17-701.510, FAC)

S	LOCATION	N/A	N/C		
X	L*			1.	Water quality and leachate monitoring plan shall be submitted describing the proposed ground water, surface water and leachate monitoring systems and shall meet at least the following requirements;
X	L*			a.	Based on the information obtained in the hydrogeological investigation and signed, dated and sealed by the PG or PE who prepared it; (17-701.510(2)(a),FAC)
X	L*			b.	All sampling and analysis performed by organizations having Department approved Comprehensive Quality Assurance Plans; (17-701.510(2)(b),FAC)
				c.	Ground water monitoring requirements; (17-701.510(3),FAC)
X	L*			(1)	Detection wells located downgradient from and within 50 feet of disposal units;
X	L*			(2)	Downgradient compliance wells as required;
X	L*			(3)	Background wells screened in all aquifers below the landfill that may be affected by the landfill;
X	L*			(4)	Location information for each monitoring well;
X	L*			(5)	Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells unless site specific conditions justify alternate well spacings;
X	L*			(6)	Well screen locations properly selected;
X	L*			(7)	Procedures for properly abandoning monitoring wells;
X	L*			(8)	Detailed description of detection sensors if proposed.
				d.	Surface water monitoring requirements; (17-701.510(4),FAC)
X	L*			(1)	Location of and justification for all proposed surface water monitoring points;
X	L*			(2)	Each monitoring location to be marked and its position determined by a registered Florida land surveyor;
X	L*			e.	Leachate sampling locations proposed; (17-701.510(5),FAC)

* The Citrus County Central Landfill 80-Acre Landfill Expansion Groundwater Monitoring Plan with revisions was submitted previously to FDEP to address both the 80-acre and 60-acre landfill. This plan as revised is made part of this permit application by reference.

S	LOCATION	N/A	N/C		
				f.	Routing sampling frequency and requirements; (17-701.510(6),FAC)
X	L*			(1)	Background ground water and surface water sampling and analysis requirements;
X	L*			(2)	Leachate semi-annual and annual sampling and analysis requirements;
X	L*			(3)	Detection well semi-annual sampling and analysis requirements;
X	L*			(4)	Compliance well sampling and analysis requirements;
X	L*			(5)	Surface water sampling and analysis requirements
X	L*			g.	Describe procedures for implementing assessment monitoring and corrective action as required; (17-701.510(7),FAC)
X	L*			h.	Water quality monitoring report requirements; (17-701.510(9),FAC)
X	L*			(1)	Semi-annual report requirement;
X	L*			(2)	Bi-annual report requirements signed, dated and sealed by PG or PE.

*The Citrus County Central Landfill 80-Acre Landfill Expansion Groundwater Monitoring Plan with revisions was submitted previously to FDEP to address both the 80-acre and 60-acre landfill. This plan as revised is made part of this permit application by reference.

M. SPECIAL WASTE HANDLING REQUIREMENTS (17-701.520, FAC)

S	LOCATION	N/A	N/C		
___	M	X	___	1.	Describe procedures for managing motor vehicles; (17-701.520(1),FAC)
___	M	X	___	2.	Describe procedures for landfilling shredded waste; (17-701.520(3),FAC)
X	M	___	___	3.	Describe procedures for asbestos waste disposal; (17-701.520(4),FAC)
X	M	___	___	4.	Describe procedures for contaminated soil disposal; (17-701.520(5), FAC)

N. LANDFILL FINAL CLOSURE REQUIREMENTS (17-701.600,FAC)

				1.	Closure schedule requirements; (17-701.600(2),FAC)
X	N.1	___	___	a.	Documentation that a written notice including a schedule for closure will be provided to the Department at least one year prior to final receipt of wastes;
X	N.1	___	___	b.	Notice to user requirements within 120 days of final receipt of wastes;
X	N.1	___	___	c.	Notice to public requirements within 10 days on final receipt of wastes.
				2.	Closure permit general requirements; (17-701.600(3),FAC)
___	N.2	X	___	a.	Application submitted to Department at least 90 days prior to final receipt of wastes;
				b.	Closure plan shall include the following:
___	N.2	X	___	(1)	Closure report;
___	N.2	X	___	(2)	Closure design plan;
___	N.2	X	___	(3)	Closure operation plan;
___	N.2	X	___	(4)	Closure procedures;
___	N.2	X	___	(5)	Plan for long term care;
___	N.2	X	___	(6)	A demonstration that proof of financial responsibility for long term care will be provided.

S	LOCATION	N/A	N/C	
				3. Closure report requirements; (17-701.600(4),FAC)
				a. General information requirements;
___	N.3	X	___	(1) Identification of landfill;
___	N.3	X	___	(2) Location, description and vicinity map;
___	N.3	X	___	(3) Total acres of disposal areas and landfill property;
___	N.3	X	___	(4) Legal property description;
___	N.3	X	___	(5) History of landfill;
___	N.3	X	___	(6) Identification of types of waste disposed of at the landfill.
___	N.3	X	___	b. Geotechnical investigation report and water quality monitoring plan required by Rule 17-701.330(4),FAC;
___	N.3	X	___	c. Land use information report indicating: identification of adjacent landowners; zoning; present land uses; and roads, highway right-of-way, or easements.
___	N.3	X	___	d. Report on actual or potential gas migration at landfills containing biodegradable wastes including detailed description of test and investigation methods used;
___	N.3	X	___	e. Report assessing the effectiveness of the landfill design and operation including results of geotechnical investigations, surface water and storm water management, gas migration and concentrations, condition of existing cover, and nature of waste disposed of at the landfill;
				4. Closure design requirements to be included in the closure design plan: (17-701.600(5),FAC)
___	N.4	X	___	a. Plan sheet showing phases of site closing;
___	N.4	X	___	b. Drawings showing existing topography and proposed final grades;
___	N.4	X	___	c. Provisions to close units when they reach approved design dimensions;
___	N.4	X	___	d. Final elevations before settlement;
___	N.4	X	___	e. Side slope design including benches, terraces, down slope drainage ways, energy dissipators and discussion of expected precipitation effects;

S	LOCATION	N/A	N/C		
					f. Final cover installation plans including:
___	N.4	X	___		(1) CQA plan for installing and testing final cover;
___	N.4	X	___		(2) Schedule for installing final cover after final receipt of waste;
___	N.4	X	___		(3) Description of drought-resistant species to be used in the vegetative cover;
___	N.4	X	___		(4) Top gradient design to maximize runoff and minimize erosion;
___	N.4	X	___		(5) Provisions for cover material to be used for final cover maintenance.
					g. Final cover design requirements:
___	N.4	X	___		(1) Protective soil layer design;
___	N.4	X	___		(2) Barrier soil layer design;
___	N.4	X	___		(3) Erosion control vegetation;
___	N.4	X	___		(4) Geomembrane barrier layer design.
___	N.4	X	___		h. Proposed method of stormwater control;
___	N.4	X	___		i. Proposed method of access control;
___	N.4	X	___		j. Description of proposed final use of the close landfill, if any;
___	N.5	X	___	5.	Closure operation plan shall include: (17-701.600(6),FAC)
___	N.5	X	___		a. Detailed description of actions which will be taken to close the landfill;
___	N.5	X	___		b. Time schedule for completion of closing and long term care;
___	N.5	X	___		c. Describe proposed method for demonstrating financial responsibility;
___	N.5	X	___		d. Indicate any additional equipment and personnel needed to complete closure.
___	N.5	X	___		e. Development and implementation of the water quality monitoring plan required in Rule 17-701.510, FAC.
___	N.5	X	___		f. Development and implementation of routine gas monitoring program required in Rule 17-701-400(10)(c), FAC.
___	N.6	X	___	6.	Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (17-701.600(7), FAC)

O. **CLOSURE PROCEDURES** (17-701.610,FAC)

S	LOCATION	N/A	N/C		
___	O	X	___	1.	Survey monuments; (17-701.610(2),FAC)
___	O	X	___	2.	Final survey report; (17-701.610(3),FAC)
___	O	X	___	3.	Certification of closure construction completion; (17-701.610(4),FAC)
___	O	X	___	4.	Declaration to the public; (17-701.610(5),FAC)
___	O	X	___	5.	Official date of closing; (17-701.610(6),FAC)
___	O	X	___	6.	Use of closed landfill areas; (17-701.610(7),FAC)

P. **LONG TERM CARE REQUIREMENTS** (17-701.620,FAC)

X	P.1	___	___	1.	Right of property access requirements; (17-701.620(4),FAC)
X	P.2	___	___	2.	Successors of interest requirements; (17-701.620(5),FAC)
X	P.3	___	___	3.	Requirements for replacement of monitoring devices; (17-701.620(7),FAC)
X	P.4	___	___	4.	Completion of long term care signed and sealed by professional engineer (17-701.620(8), FAC)

Q. **FINANCIAL RESPONSIBILITY REQUIREMENTS** (17-701.630,FAC)

X	Q.1	___	___	1.	Provide cost estimated for closing, long term care, and corrective action costs estimated by a PE for a third party performing the work, on a per unit basis, with the source of estimates indicated; (17-701.630(3)&(7), FAC).
X	Q.2	___	___	2.	Describe procedures for providing annual cost adjustments to the Department based on inflation and changes in the closing, long-term care, and corrective action plans; (17-701.630(4)&(8), FAC).
X	Q.3	___	___	3.	Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms; (17-701.630(5), (6), & (9), FAC).

R. **CLOSURE OF EXISTING LANDFILLS** (17-701.640, FAC)

___	R	X	___	1.	Demonstration that facility does not pose a bird hazard to aircraft as specified in Rule 17-701.320(12)(b), FAC
___	R	X	___	2.	Demonstration that facility does not restrict the flow of the 100-year flood, reduce water storage capacity or result in wash-out of solid waste as specified in Rule 17-701.340(4)(b), FAC.

S	LOCATION	N/A	N/C		
___	R	X	___	3.	Demonstration that facility is not located in a fault area, seismic zone or unstable area as specified in Rule 17-701.420(1)(c), FAC
				4.	Request for extension of closure criteria as specified in Rule 17-701.640(2)(a) & (2)(b), FAC.
___	R	X	___		a. Demonstration of no alternative disposal capacity.
___	R	X	___		b. Demonstration of no threat to human health or the environment.

S. MATERIALS RECOVERY FACILITY REQUIREMENTS (17-701.700,FAC)

___	S	X	___	1.	Proof of posting a performance bond payable to the Department to cover closing costs, if required; (17-701.700(4),FAC)
___	S	X	___	2.	Materials recovery facility requirements; (17-701.700,FAC)
___	S	X	___		a. Submit information required in Rule 17-701.320,FAC
___	S	X	___		b. Submit an engineering report including following:
___	S	X	___		(1) Description of the solid waste proposed to be collected, stored, processed or disposed;
___	S	X	___		(2) Projection with assumptions for waste types and quantities expected in future years;
___	S	X	___		(3) Description of operation and functions of all processing equipment with design criteria and expected performance;
___	S	X	___		(4) Description of flow of solid waste, expected regular facility operations, procedures for startup and shut down, potential safety hazards and control methods including fire protection;
___	S	X	___		(5) Description of loading, unloading, and processing area;
___	S	X	___		(6) Identification and capacity of temporary on-site storage areas for materials handled and provisions for solid waste and leachate containment;
___	S	X	___		(7) Identification of potential ground water and surface water contamination;

S	LOCATION	N/A	N/C	
___	S	X	___	(8) Plan for disposal of unmarketable recyclables and residue and contingencies for waste handling during breakdowns.
___	S	X	___	c. Submit the following operational information:
___	S	X	___	(1) Operation and maintenance manual;
___	S	X	___	(2) Waste control plan to manage unauthorized wastes;
___	S	X	___	(3) Contingency plan for emergencies;
___	S	X	___	(4) Closure plan including the following:
___	S	X	___	(a) Notification to Department 180 days prior to closure;
___	S	X	___	(b) Procedures for removal of all waste within 30 days of receipt of final waste;
___	S	X	___	(c) Completion of closure activities within 80 days of receipt of final waste and notification to the Department that closure is complete.

T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

A. Applicant

The undersigned applicant or authorized representative of Citrus County is aware that statements made in this form and attached information are an application for a Solid Waste Management Facility Permit from the Florida Department of Environmental Regulation and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statues, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Susan J. Metcalfe

Signature of Applicant or Agent

Susan J. Metcalfe, Director
Division of Solid Waste Management
Name and Title

Date: October 20, 1995

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

B. Professional Engineer Registered in Florida or Public Officer as required in Section 403.707 and 403.707(5), Florida Statutes.

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Signature

Gary L. Panozzo, P.E.
Project Manager
Name and Title (Please type)

38774
Florida Registration Number
(please affix seal)

STATE OF FLORIDA PROFESSIONAL ENGINEER GARY L. PANOZZO NO. 38774 CERTIFICATE

CH2M HILL, P.O. Box 21647
Mailing Address

Tampa, Florida 33622-1647
City, State, Zip Code

(813) 874-0777
Telephone Number

Date: October 20, 1995

Attachment B
Rule 62-701.300, FAC - Prohibitions

Attachment B
Rule 62-701.300 (FAC) - Prohibitions

This attachment addresses each of the prohibitions in Rule 62-701.300 (FAC) in relation to operation of Phase 1 of the Citrus County Central Landfill. The prohibition numbers are provided below along with a response.

Rule 62-701.300(1)(a), FAC

The Phase I Citrus County Central Landfill is permitted by the Florida Department of Environmental Protection as a solid waste management facility. The permit number for construction of the facility is SC09-155514. The permit number for past operations of the facility is SO09-187229. The pending permit number for future operations of the facility is SO09-274381.

Rule 62-701.300(1)(b), FAC

The Phase I Citrus County Central Landfill is operated to not cause air quality standards or water quality standards to be violated. The operations plan for the facility includes both a water quality monitoring plan and gas monitoring program. The water quality monitoring plan was included in the previously made permit application and has subsequently been revised to address FDEP's August 15, 1995 request for additional information (Number 23). The gas monitoring program is addressed in Section 9 of the previously submitted operations plan and has subsequently been revised to address FDEP's August 15, 1995 request for additional information (Number 19).

Rule 62-701.300(2)(a), FAC

The geotechnical investigation and hydrogeological investigation which were conducted prior to construction of the facility and submitted as part of the facility construction permit demonstrate that the geologic formations and other subsurface features will provide adequate support for the solid waste.

Rule 62-701.300(2)(b), FAC

This prohibition is not applicable to the facility because geologic formations and subsurface features in combination with the landfill lining and leachate collection system impede the discharge of waste and leachate to both groundwater and surface water.

Rule 62-701.300(2)(c), FAC

The well inventory included in the hydrogeological investigation which was conducted prior to construction of the facility and submitted as part of the facility construction

permit shows that no shallow water supply wells within 500 feet were in existence prior to facility permitting.

Rule 62-701.300(2)(d), FAC

The Phase I Citrus County Central Landfill is not a dewatered pit. Section G.2.a.3 on Page G-4 of the previously submitted permit application demonstrates that the groundwater level is below the landfill bottom.

Rule 62-701.300(2)(e), FAC

Section F.1 on Page F-1 of the previously submitted permit application demonstrates that the Phase I Citrus County Central Landfill is not located in an area subject to frequent and periodic flooding.

Rule 62-701.300(2)(f), FAC

Figure D-1 of the previously submitted permit application demonstrates that the Phase I Citrus County Central Landfill is not located in any natural or artificial bodies of water. Section G.2.a.3 on Page G-4 of the previously submitted permit application demonstrates that the groundwater level is below the landfill bottom.

Rule 62-701.300(2)(g), FAC

The surface water management permit application which was prepared prior to construction of the facility demonstrate that the Citrus County Central Landfill is not located within 200 feet of a body of water or jurisdictional wetland.

Rule 62-701.300(2)(h), FAC

Phase 1 of the Citrus County Central Landfill is located entirely within County owned property and not on any public highways, roads, or alleys.

Rule 62-701.300(3), FAC

Operations for Phase 1 of the Citrus County Central Landfill are included in the operations plan previously submitted. Burning of solid waste is not part of landfill operations.

Rule 62-701.300(4), FAC

Operations for Phase 1 of the Citrus County Central Landfill are included in the operations plan previously submitted. Placing hazardous waste in the facility is not part of landfill operations.

Rule 62-701.300(5), FAC

No liquids or non-liquids containing PCBs at concentrations of 50 parts per million or greater will be knowingly disposed of in Phase 1 of the Citrus County Central Landfill.

Rule 62-701.300(6), FAC

No untreated biohazardous waste will be knowingly disposed of in Phase 1 of the Citrus County Central Landfill.

Rule 62-701.300(7), FAC

Figure D-1 of the previously submitted permit application demonstrates that Phase I of the Citrus County Central Landfill is not located within 3,000 feet of any Class I surface water bodies.

Rule 62-701.300(8), FAC

No lead-acid batteries, used oil, yard trash, white goods, or whole waste tires will be knowingly disposed of in Phase 1 of the Citrus County Central Landfill.

Rule 62-701.300(9), FAC

This prohibition is not applicable since Phase 1 of the Citrus County Central Landfill does not include a waste to energy facility.

Rule 62-701.300(10)(a), FAC

No noncontainerized liquid waste; except household waste other than septic waste, or leachate condensate, gas condensate, or treatment byproducts from the facility; will be knowingly disposed of in Phase 1 of the Citrus County Central Landfill.

Rule 62-701.300(10)(b), FAC

No containerized liquid waste; except small containers normally found in household waste, containers designed to hold liquids for use other than storage, or the waste is household waste; will be knowingly disposed of in Phase 1 of the Citrus County Central Landfill.

Rule 62-701.300(10)(c), FAC

Containers or tanks larger 20 gallons or larger shall be cut open or punctured to ensure the container is empty and free of residue prior to disposal in the landfill. In addition, the container shall be compacted to its smallest practical volume prior to disposal.

Attachment C

Proof of Publication of Notice of Application

Proof Of Publication

from the
CITRUS COUNTY CHRONICLE
Crystal River, Citrus County, Florida

PUBLISHED DAILY

STATE OF FLORIDA
COUNTY OF CITRUS

Before the undersigned authority personally appeared Bradley R. Frazier who on oath says that he is the accounting manager of the Citrus County Chronicle, a newspaper published daily at Crystal River, in Citrus County, Florida, that the attached copy of advertisement being a public notice in the matter of the
Application Pending Permit # S9009-274381

Court, was published in said newspaper in the issues of
October 8, 1995

Affiant further says that the Citrus County Chronicle is a newspaper published at Crystal River in said Citrus County, Florida, and that the said newspaper has heretofore been continuously published in Citrus County, Florida, each week and has been entered as second class mail matter at the post office in Inverness in said Citrus County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

R Chris Ordway

The foregoing instrument was acknowledged before me this 8th day of October 1995
by R. CHRIS ORDWAY
who is personally known to me and who did take an oath

Jeanette A. Schmidt
Notary Public

Jeanette A. Schmidt
Notary Public, State of Florida
Commission No. CC 302632
My Commission Expires 8/16/97
Bonded Through Fla. Notary Service & Bonding Co.

3601008 SuCm
PUBLIC NOTICE
State of Florida
Department of
Environmental Protection
Notice of Application
Pending Permit
S9009-274381

The Department announces receipt of an application for permit from Ms. Susan Metcalfe, of Citrus County to operate the Citrus County Landfill (approximately 20 acres) subject to Department rules, located on State Road 44 between Lecanto and Inverness, Citrus County, Florida.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619.

Published one (1) time in the Citrus County Chronicle: October 8, 1995.

RECEIVED
OCT 18 1995
CITRUS COUNTY DPW
SOLID WASTE MANAGEMENT DIV

State of Florida
Department of Environmental Protection
Notice of Application
Pending Permit # SO09-274381

The Department announces receipt of an application for permit from Ms. Susan Metcalfe, of Citrus County to operate the Citrus County Central Landfill (approximately 20 acres) subject to Department rules, located on State Road 44 between Lecanto and Inverness, Citrus County, Florida.

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Attachment D

FDOT Confirmation on Airport Locations

FAX Cover Sheet

Aviation Office

Land Use Planning

FAX #:(904) 922-4942 SUNCOM 292-4942

TO: Gary Panozzo	FROM: A. J. Roberts
OF: CH2M Hill, Tampa	FOR INFORMATION CALL: (904)488-8444

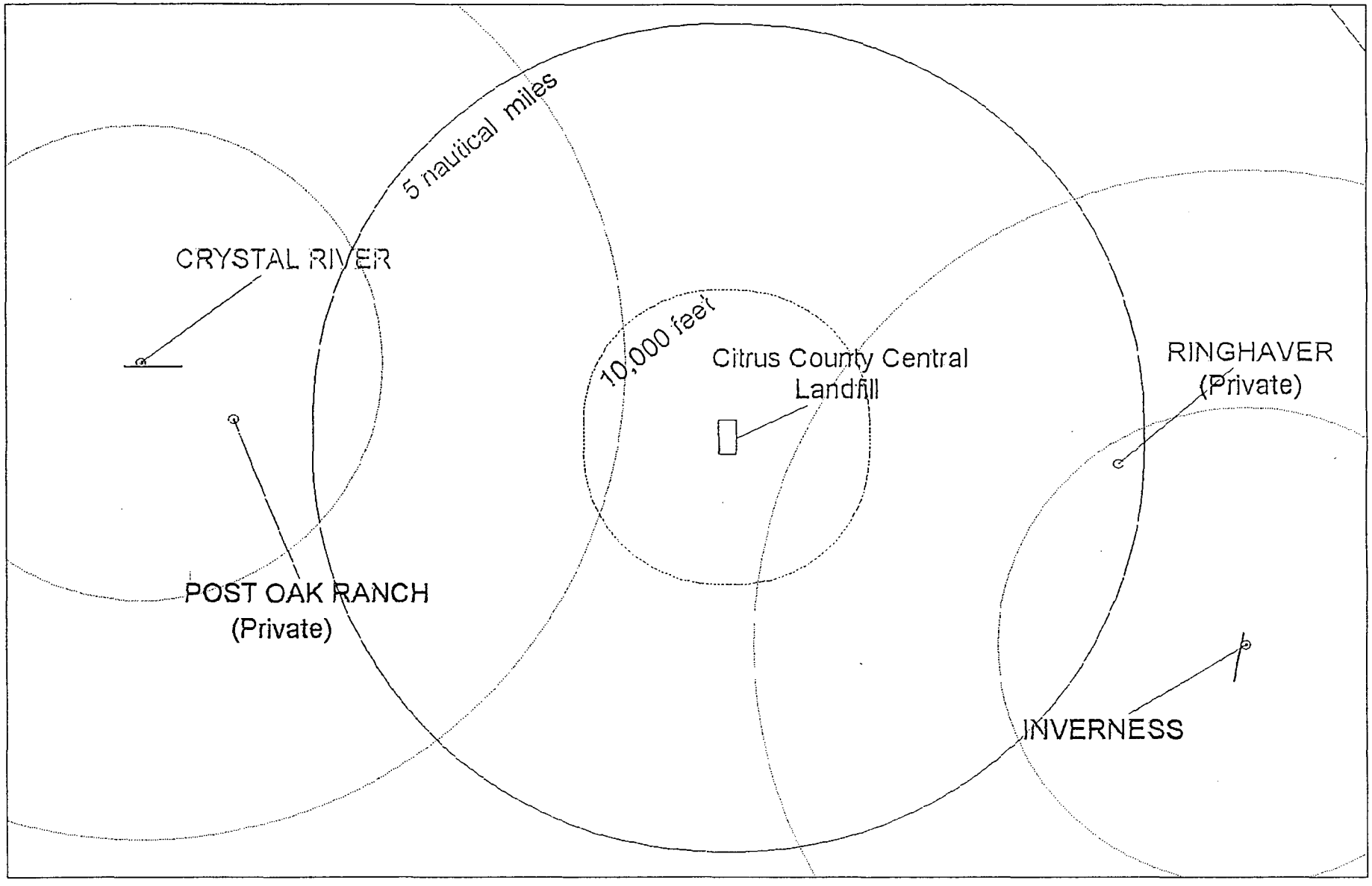
TO FAX #: 6,-813-874-3056	DATE/TIME SENT: 10/18/95; 12:26:14	NUMBER OF PAGES SENT: (Including cover) 2

Gary.....

Per your attached letter request, this GIS Map shows there are no public airports within 5 nm of the County's Central Landfill and only one private facility, Ringhaver which is a helistop. This facility does not have a "runway licensed by the state" as provided in 62-710, therefore it does not need to be considered for the planned expansion. There are no airport facilities within 10,000 feet of the landfill.

AJr.

cc. David Lee, FDOT Dist II


5 nautical miles
10,000 feet
CRYSTAL RIVER
Citrus County Central
Landfill
RINGHAVER
(Private)
POST OAK RANCH
(Private)
INVERNESS

Engineers
Planners
Economists
Scientists

October 16, 1995

117956.28.01

Mr. Al Roberts
Florida Department of Transportation
Aviation Office
605 Suwannee Street, MS46
Tallahassee, FL 32399-0450

Dear Mr. Roberts:

Subject: Airport Safety
Citrus County Central Landfill

As we discussed during our telephone conversation last week, CH2M HILL is working on behalf of Citrus County to obtain an operations permit renewal for Phase 1 of the Citrus County Central Landfill and a construction and operations permit for the Phase 1A expansion to the facility. The enclosed figure shows the general location of the site as well as the coordinates of the facility property boundary. In accordance with Rule 62-701.320(12), FAC, information on licensed and operating airports within 5,000 feet, 10,000 feet, and five miles of the facility is required. We are requesting information from your database on such airports which fall into these location categories. If you would like to provide us with the information electronically an ACCESS or DBASE-IV format is preferable.

Thanks in advance for your help in this matter. Please call me if you have any questions or need any additional information.

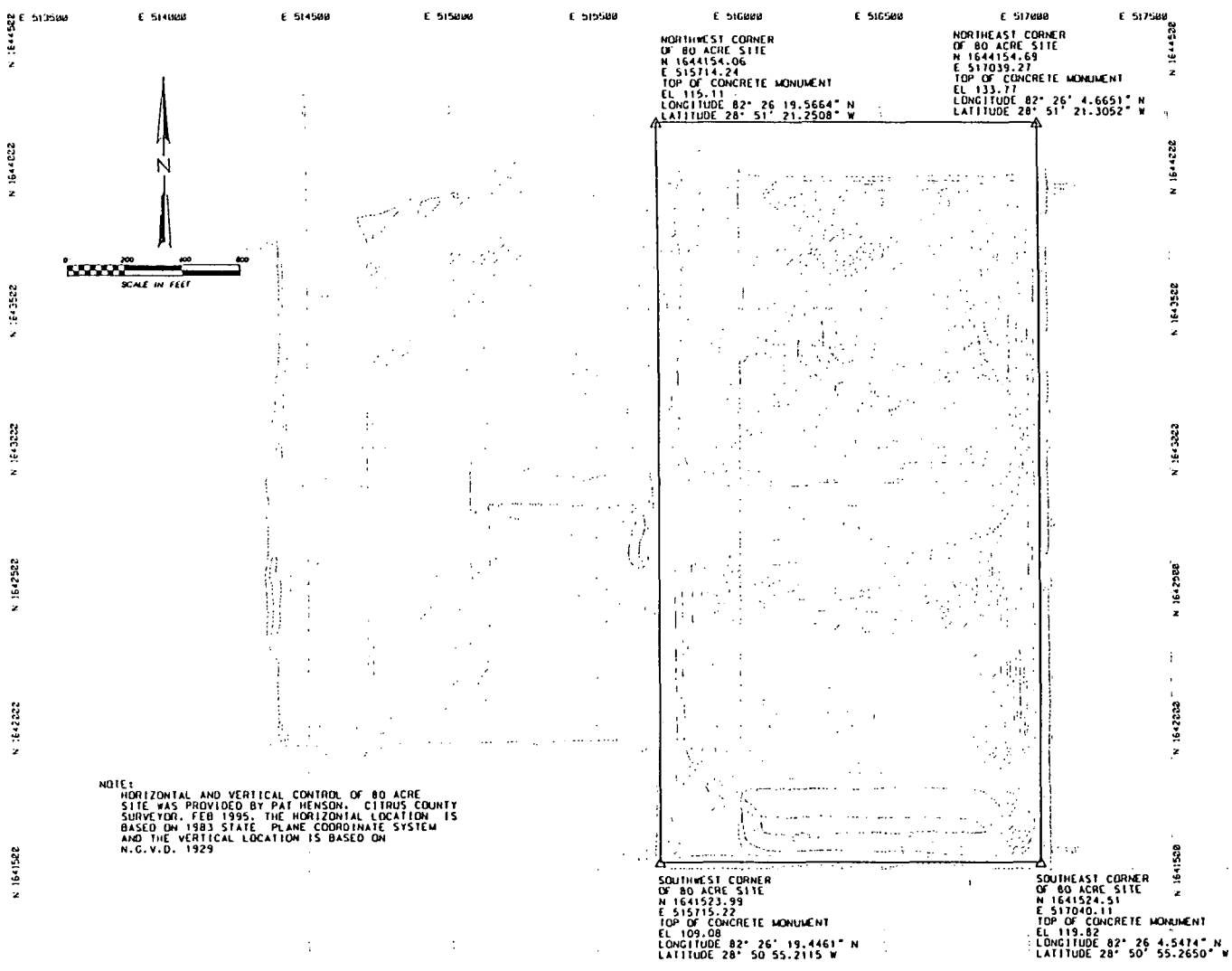
Sincerely,

CH2M HILL

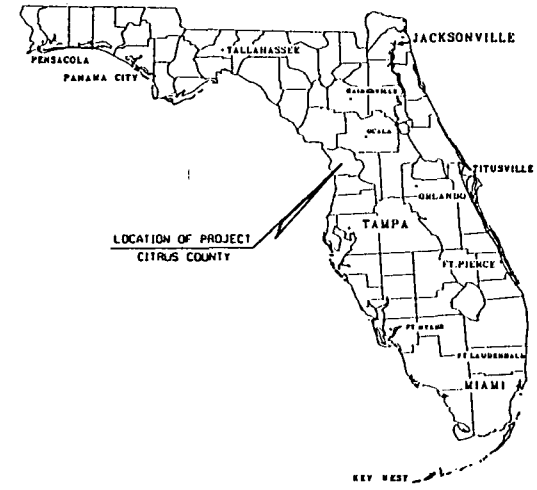
Gary L. Panozzo, P.E.
Geoenvironmental Engineer

LET008.DOC
Enclosure

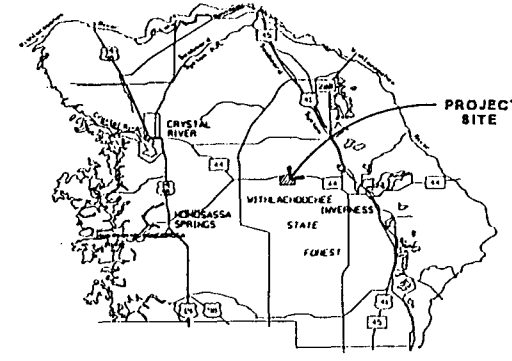
Tampa Office
4350 W. Cypress Street, Suite 600, Tampa, FL 33607-4155
Mailing address: P.O. Box 21647, Tampa, FL 33622-1647
813 874-0777
Fax No. 813 874-3056



NOTE:
HORIZONTAL AND VERTICAL CONTROL OF 80 ACRE SITE WAS PROVIDED BY PAT HENSON. CITRUS COUNTY SURVEYOR. FEB 1995. THE HORIZONTAL LOCATION IS BASED ON 1983 STATE PLANE COORDINATE SYSTEM AND THE VERTICAL LOCATION IS BASED ON N.G.V.D. 1929



FLORIDA



CITRUS COUNTY

LOCATION MAP

Revised

Attachment E

Phase 1 Filling Sequences

Attachment F

Authorization for Landfill Setback

STATE OF FLORIDA
DOYLE CONNER, COMMISSIONER

FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES

DIVISION OF FORESTRY ▪ 3125 CONNER BLVD. ▪ TALLAHASSEE, FLORIDA 32399-1650

May 30, 1989

RECEIVED
JUN - 1 1989
CITRUS

Mr. James E. Barker, Jr., Director
Division of Solid Waste Management
Citrus County
110 North Apopka Avenue
Inverness, Florida 32650

Dear Mr. Barker:

Reference is made to your letter of May 18, 1989, to John O'Meara, in which you ask for the Division of Forestry's approval to permit the new 80 acre landfill to be constructed closer than 100 feet to the boundary of Withlacoochee State Forest.

We have reviewed the information you sent us and concur that Citrus County can use the 100 foot area bordering the state forest for the purposes as shown on sheet number 4/32 of Job No. 22-081.00 as drawn by Post, Buckley, Schuh and Jernigan, Inc., and dated March, 1989.

This concurrence is granted with the following stipulations:

1. Any landfill pits that are constructed will be at least 75 feet from the Withlacoochee State Forest boundary.

2. The landfill will be constructed in such a manner so that the adjoining state forest property is not affected by garbage, erosion, water run-off, etc., and so that the County will not have to ask for additional state forest land at some future date, in order to correct a problem.

If you require further information, please advise.

Sincerely,

Harold K. Mikell
Director
Division of Forestry
904/488-4274

cc: Bill Korn, Withlacoochee Forestry Center Manager

BOARD OF COUNTY COMMISSIONERS
CITRUS COUNTY
NEW CITRUS COURTHOUSE
110 North Apopka Avenue
Inverness, Florida 32650-4290

(904) 726-8500

Reply To:

Dept. Technical Services
Div. Solid Waste Management
P. O. Box 440
Lecanto, FL 32661-0440
(904) 746-2694

May 18, 1989

Mr. John O'Meara
Div. of Forestry
3125 Conner Blvd.
Tallahassee, FL 32301

RE: LANDFILL SETBACKS FROM GU ZONED PROPERTY

Dear Mr. O'Meara:

Pursuant to our conversation this date, County Non-Residential Review Committee in accordance with the attached copy of the Zoning Ordinance that Sanitary Landfills be 100 feet from the GU zoned property or 0 feet setback if adjoining property owner concurs. The concurrence of the adjacent property owner for 0 setback is not a variance to the Citrus County Ordinance since it is addressed in the Ordinance and was intended for this specific purpose. Further please find attached a memo from the Division of Zoning explaining the Ordinance section.

The distance from the actual Landfill all to the east property line is approximately 75' while the new scale house and leachate treatment plant are approximately 10' from the old landfill on to the west property line.

As you are aware, the Landfill expansion is being constructed due to a capacity crisis in our current site. The current site will be full by February or March of 1990 and that is when our Landfill expansion must be ready to accept waste. Currently the $6,600,000 construction bid phase of this project which is based on the $267,000 design hinges on the issuance of the Building Permit.

The design of this project in its current configuration was based on assurances that such a letter would be no problem. As you can see an expedient resolution of this problem is necessary and I will be glad to meet with you and/or your supervisors if necessary.

If any further information or clarification is required, do not hesitate to contact this office.

Please advise.

Sincerely,

James E. Barker, Jr.,
Dir. Div. Solid Waste Management

JEB:cmh

cc: James W. Pinkerton, Dir. Dept. Technical Services
Tamir Ilan, P.E., Post, Buckley, Schuh & Jernigan

Attachment G

Landfill Operators Training Certification

DISTRICT: ALL

Name	SS #	Company	Phone	Initial Date	Start Date	Expire Date	Hours Taken	Hours Needed
METCALFE, SUSAN J.	099-42-0900	CITRUS COUNTY	904/746-5000	05/20/94	05/20/94	05/19/97	0.0	15.0

4383 SOLID WASTE OPERATOR SHORT SCHOOL 0.0

DISTRICT: ALL

Name	SS #	Company	Phone	Initial Date	Start Date	Expire Date	Hours Taken	Hours Needed
DEVAUGHN, PRIME	263-25-4099	CITRUS COUNTY SOLID WASTE MGMT	904/746-5000	11/16/90	11/19/93	11/18/96	20.0	0.0

H1217	SOLID WST LF OPERATORS SHORT SCHOOL	0.0
LO9001	HAZARDOUS MATERIALS AWARENESS	8.0
LO1081	17-701 & 17-703 UPDATE	4.0
6060 1	STORMWATER MANGEMENT FOR LANDFILLS	8.0

DISTRICT: SOUTHWEST

Name	SS #	Company	Phone	Initial Date	Start Date	Expire Date	Hours Taken	Hours Needed
PARRISH, DAVID A.	262-43-7484	CITRUS COUNTY SOLID WASTE MGMT	904/746-5000	11/19/93	11/19/93	11/18/96	0.0	15.0

4023 SOLID WASTE OPERATORS SHORT SCHOOL 0.0

DISTRICT: ALL

Name	SS #	Company	Phone	Initial Date	Start Date	Expire Date	Hours Taken	Hours Needed
CHAMBLIN, DAVID W.	266-23-7399	CITRUS CO BOCC/SOLID WASTE MGMT	904/746-5000	11/20/92	11/20/95	11/19/98	0.0	15.0

3029 SOLID WASTE OPERATORS SHORT SCHOOL 0.0

Florida Chapter of Governmental Refuse Collection and Disposal Association

in conjunction with

SWANA

University of Florida
Center for Training, Research and Education for Environmental Occupations

certifies that

SUSAN J. METCALFE

after determination by review of experience, training and examination is hereby designated a

Certified Sanitary Landfill Operator

MAY 19, 1995

Karen J. Deeter
President
FLORIDA CHAPTER

Certificate # 0481

Director
UF/TREEO

Florida Chapter of Governmental Refuse Collection and Disposal Association

in conjunction with

SWANA

University of Florida
Center for Training, Research and Education for Environmental Occupations

certifies that

DAVID W. CHAMBLIN

after determination by review of experience, training and examination is hereby designated a

Certified Sanitary Landfill Operator

November 20, 1992

Mark Bassingthwaighte

President
FLORIDA CHAPTER

Certificate # 0428

James O. Bryant, Jr.

James O. Bryant, Jr., Director
TREEO

Florida Chapter of Governmental Refuse Collection and Disposal Association

in conjunction with

University of Florida
Center for Training, Research and Education for Environmental Occupations

certifies that

Prime DeVaughn

after determination by review of experience, training and examination is hereby designated a

Certified Sanitary Landfill Operator

November 16, 1990

President
FLORIDA CHAPTER

Certificate # 0350

James O. Bryant, Jr., Director
TREEO

Florida Chapter of Governmental Refuse Collection and Disposal Association

in conjunction with

University of Florida
Center for Training, Research and Education for Environmental Occupations

certifies that

FRANK W. WENTZEL

after determination by review of experience, training and examination is hereby designated a

Certified Sanitary Landfill Operator

November 19, 1993

President
FLORIDA CHAPTER

Certificate # 0437

James O. Bryant, Jr., Director
TREEO

UNIVERSITY OF FLORIDA
Center for Training, Research and Education for Environmental Occupations

This Certifies that

PRIME DEVAUGHN

has attended

Stormwater Management for Landfills

[illegible] 1005

Certificate of Attendance

CEU's Awarded

0.8

Dr. William T. Engel, Jr.

UNIVERSITY OF FLORIDA
Center for Training, Research and Education for Environmental Occupations

This Certifies that

DAVID PARRISH

has attended

Stormwater Management for Landfills

[illegible] 1995

has successfully completed

Certificate of Attendance

CEU's Awarded

0.8

Dr. William T. Engel, Jr.

Attachment H

Current Work Schedule

Work Schedule for Trained Operators During Landfill Working Hours						
	Day of Week					
Hour	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
7 to 8 a.m.	Devaughn	Devaughn	Devaughn	Devaughn	Devaughn	Devaughn (every other) Chamblin
8 to 9 a.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
9 to 10 a.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
10 to 11 a.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
11 to 12 a.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
12 to 1 p.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
1 to 2 p.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
2 to 3 p.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn (every other) Chamblin
3 to 4 p.m.	Devaughn Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	Devaughn Chamblin Metcalfe	**Closed**
4 to 5 p.m.	Metcalfe	Chamblin Metcalfe	Chamblin Metcalfe	Chamblin Metcalfe	Chamblin Metcalfe	**Closed**

See Appendix C
October
1996

Attachment I

Load Checking Program

SEE APPENDIX D OCTOBER 1996

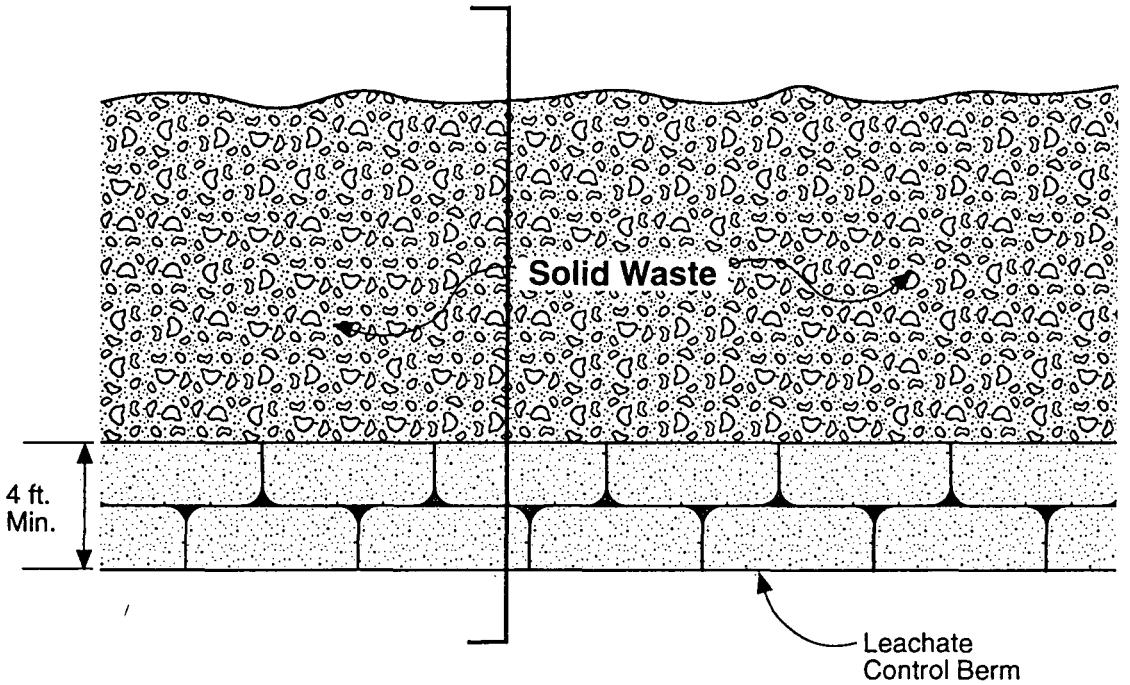
Attachment J

Unauthorized Waste Training

Attachment K

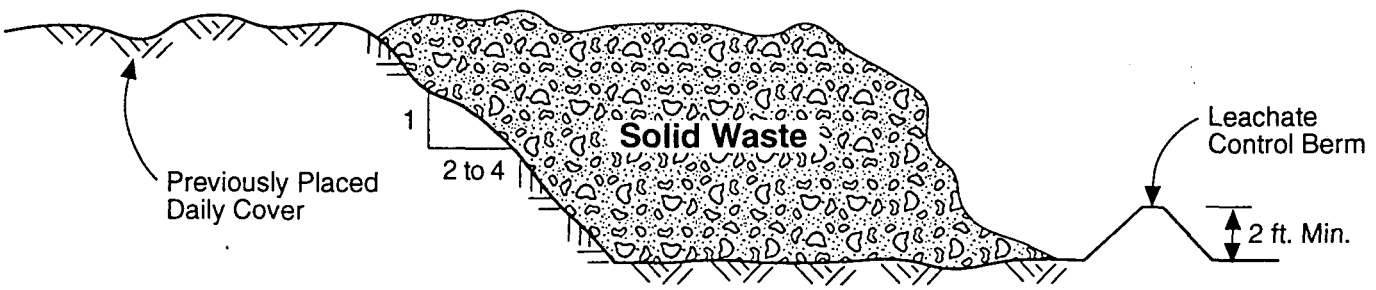
Figures of Typical Working Face

117956.28.01 10/95 Dsk30



Plan

N.T.S.



Section

N.T.S.

FIGURE K-1
Typical Working Face

CH2M HILL

Attachment L

Gutter Down Drain System

AQUA-SHED MFG. CORP. Box 5584, Florence,S.C. 29502
Tel.: 803 661 7444, FAX 803 661 7466
Plant: 220 East Industrial Park Blvd.

SPECIFICATION

AQUA-SHED™ ULTRA THIN (HDPE film)

THICKNESS: 1 mil

COLOR: Black/white

ADHESIVE: Permanently tacky emulsion applied to black side

CARBON CONTENT: 3.5% +

PENETRATION TEST : Method A Dart = 100 grams +

ELMENDORF TEAR TEST: 40 gram/machine direction,
500 gram/cross direction

TENSILE STRENGHT: 7,000 psi/machine direction
4,000 psi/cross direction

PERCENT STRETCH TO BREAK: 300% machine direction
500% cross direction

ULTRA VIOLET STABILITY: 80% retention of elongation 1,000 hrs.
in Xenon arc weatherometer

WEIGHT: 5 lbs/1,000 sq.ft. w/o adhesive, 11 lbs/with adhesive

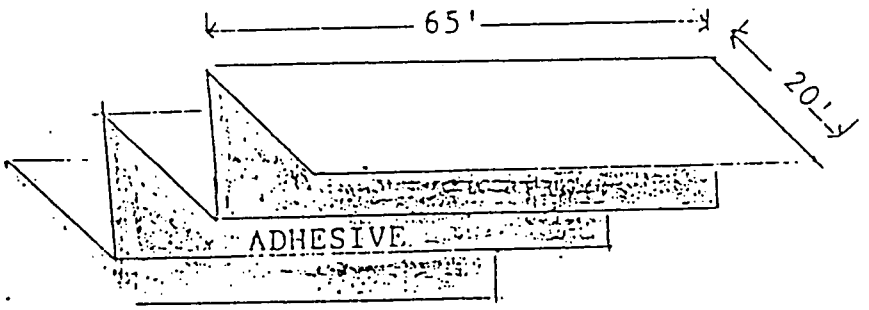
VAPOR TRANSMISSION: Methyl Bromide gas @30°C -
10 ml/hr/m²/1,000 ppm

FUEL CONTENT: 90 BTU/sq.ft.

HAZARDOUS INGREDIENTS: none

TOXICITY: none

PACKING: In carton 24" x 24" x 20", without adhesive
2 panels - 90 lbs.,; with adhesive one panel
in plastic bag - 80 lbs.



MATERIAL SAFETY DATA

AQUA-SHED ULTRA THIN

To remove excess adhesive from skin: Use soap and warm water.

To remove excess adhesive from clothes; use lighter fluid, soap and hot water.

Ingestion : See doctor, or induce vomiting.

Disposal: Landfill

10/94

AQUA-SHED MANUFACTURING CORP.
220E Industrial Park Blvd.
Florence, SC 29505

Florence Office:
Phone: 803-661-7444
Fax: 803-661-7466

MATERIAL SAFETY DATA
AQUA-SHED™ WASTE COVER

AQUA-SHED™ is a plastic sheet, coated on one side with a water based glue.

MANUFACTURER OF AQUA-SHED™ COVER

Aqua-Shed Manufacturing Corporation
P.O. Box 5584, Florence , S.C. 29502

PRODUCT IDENTIFICATION:

- as Waste Cover

SHEET COMPOSITION:

- PVC sheet coated with tacky adhesive

HAZARDOUS INGREDIENTS:

- None

PHYSICAL DATA:

- PVC sheet -- non-combustible
- Thickness -- 6 mil, or 20 mil
- Elasticity - 300% Elongation

HEALTH HAZARD DATA:

- None

CLEAN-UP PROCEDURE:

- Wash off glue with soap and water

SPECIAL PROTECTIVE INFORMATION:

- None

SPECIAL PRECAUTIONS:

- None

DOT CLASSIFICATION:

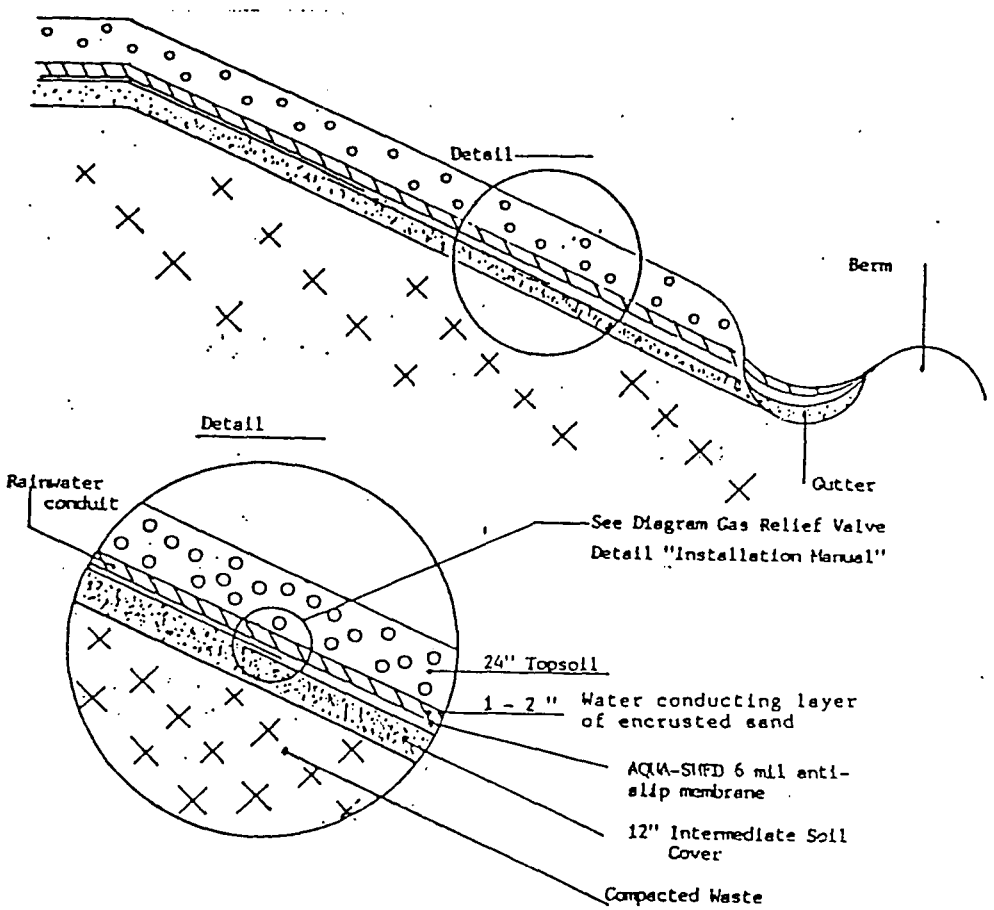
- Not applicable

DISPOSAL:

- Classified as non-hazardous waste material
- Dispose on landfill

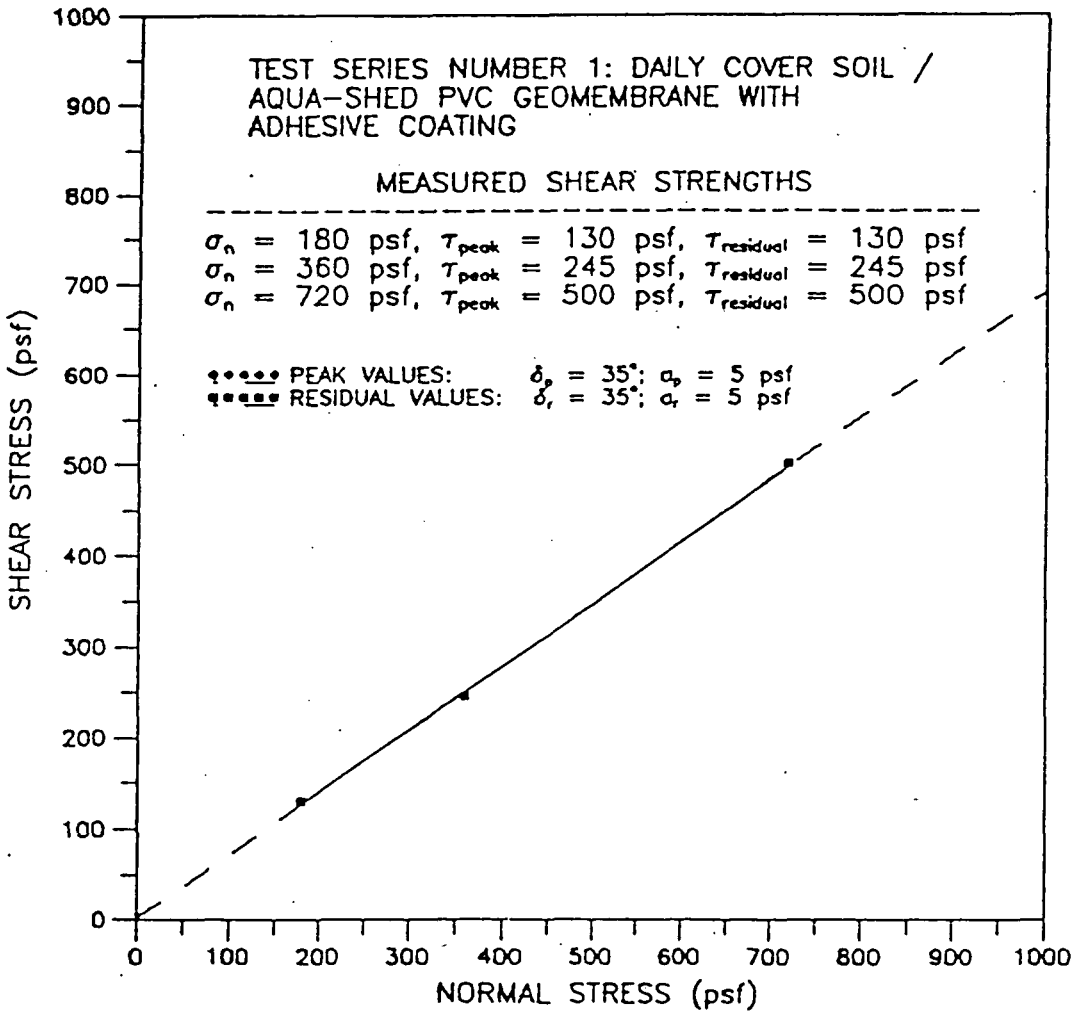
DATE PREPARED: 6/94

USES: The AQUA-SHED MEMBRANE can be used to control liquid and vapor flows for long periods of time, as well as for FRICTION INCREASE of soils above and below. (Friction angle). Also the FRICTION can be INCREASED between two membranes with aqua-shed[R]. Waterlogging directly above the AQUA-SHED membrane must be prevented by a filtercloth or encrusted water conductive layer as shown below.



INSTALLATION: The AQUA-SHED membrane is folded into a handy package with the glued surface in the last fold. Once unfolded, the AQUA-SHED membrane is placed face down and all overlaps , like roof shingles, pointing down slope. Until the glue activates, the edges should be secured with sandbags, poles, earth or other suitable means to prevent wind damage. Edges must be toed in.

AQUA–SHED MANUFACTURING, CORP.
INTERFACE DIRECT SHEAR TESTING



NOTE: The reported value of adhesion may not be the true adhesion of the interface, and caution should be exercised in using this adhesion value for applications involving normal stresses outside the range of stresses covered by the test.

DATE TESTED: 22 JUNE 1993

GEOSYNTEC CONSULTANTS
GEOMECHANICS AND ENVIRONMENTAL LABORATORY

FIGURE NO.	2–2
PROJECT NO.	GL3401
DOCUMENT NO.	GEL93183
PAGE NO.	

STORMWATER DIVERSION: To collect rainwater, the AQUA-SHED membrane is deployed like roof shingles, with an overlap of approx. 6".A gutter at the bottom of the slope can direct the clean run-off as required.
Below is a typical example on how substantial savings can be achieved. The table of rainfall conversion to gallons with a formula to calculate savings will aid in quick determination of whether or not AQUA-SHED is economical to use.

ASSUMPTIONS: Leachate treatment costs 1¢ per gallon for treatment and 5¢ per gallon for freight.

FACT: One inch of rainfall produces .31 gallons of leachate per square foot of area, if 50% percolates, 35% evaporates, and 15% runs off.

COST: One square foot of AQUA-SHED costs 6.1 cents per square foot, and with freight and installation the total installed cost will be approximately 8.5 ¢/sq.ft.

AQUA-SHED Cost= sq.ft. area covered x 8.5

LEACHATE DISPOSAL COST = sq.ft. area covered x .31 gal.x 6 ¢/gal. x inches of rainfall

SAVINGS: Cost of Leachate Treatment minus Cost of AQUA-SHED™

EXAMPLE: If a landfill receives 50" of rainfall in one year and has 30 acres of its area covered with AQUA-SHED™, the savings would be:

30 Acres = (43,560 sq.ft./acre) x (30 acres) = 1,306,800 sq. ft.

COST OF TREATMENT = (1,306,800 sq.ft.) x (50 in.) x ($.0186) = $1,215,324.00

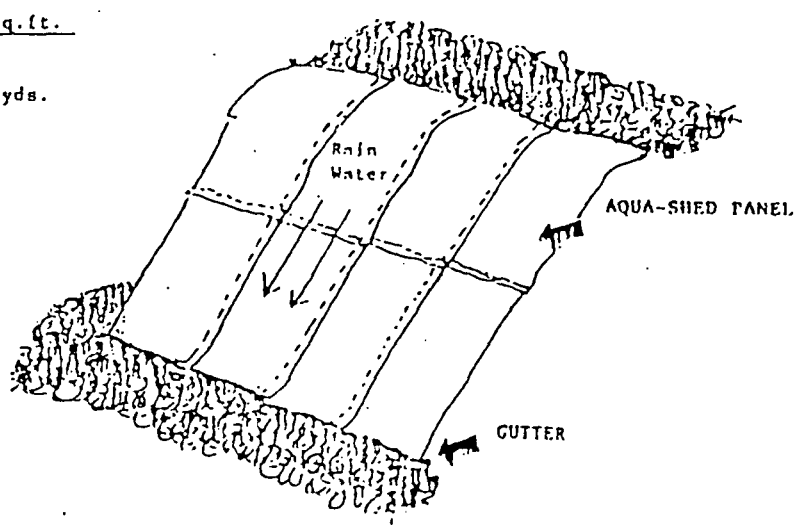
COST OF AQUA-SHED™ = (1,306,800 sq.ft.) x (8.5 ¢/sq.Ft. =$ 111,078.00

SAVINGS WITH AQUA-SHED™ $1,215,324.00 - $111,078.00 = 1,104,246.00

BONUS: In addition to saving almost 11 times the cost of AQUA-SHED™, using AQUA-SHED™ in place of soil will save 48,400 cubic yards of valuable landfill space over this 30 acre area.

Volume = $\frac{1,306,800 \text{ sq.ft.}}{27}$

= 48,400 cu. yds.



Florida Department of
Environmental Protection

Lawton Chiles
Governor

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

December 20, 1993

Mr. Gordan R. Ripma
Aqua-Shed Manufacturing Corp.
2001 SE Airport Road
Stuart, FL 34996

Dear Mr. Ripma:

I am in receipt of your letter dated December 7, 1993. The Department generally has no objections to the use of your product for storm water diversion at landfill sites in the Southeast District. Please note that this is not an endorsement of your product, and the Department reserves the right to review the specific use of your product at any site. No permit is required if used over an intermediate cover, meeting the requirements of Section 701.500(7)(f), Florida Administrative Code, at landfills with an pproved and operational MSSW and leachate collection system. Any other use must be reviewed on a case-by-case basis by the Department.

If you have any questions, please contact me at telephone number 407/433-2650.

Sincerely,

Joseph Kahn, P.E.
Supervisor, Solid Waste Section

cc: Greg Coffelt, DEP, MSSW
Eduardo Lopez, SFWMD

Printed on recycled paper.

Department of Environmental Protection

Lawton Chiles
Governor

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

July 8, 1994

Gordon R. Ripma
Aqua-Shed Manufacturing Corp.
2001 S.E. Airport Road
Stuart, FL 34996

Dear Mr. Ripma:

I have reviewed the materials you sent to me with your cover letter dated June 30, 1994. It appears that the Aqua-Shed Ultra-Thin product meets the requirements of Rule 17-701.500(7)(e), Florida Administrative Code, as an alternate initial cover for use at landfills in the Southeast District. Please note that the Department does not endorse particular products, so this letter should not be considered an endorsement.

If you have any questions, feel free to contact me at 407-433-2650.

Sincerely,

Joseph Kahn, P.E.
Supervisor, Solid Waste Section

cc: Richard Tedder, P.E., DEP/SW, TLH

Attachment M

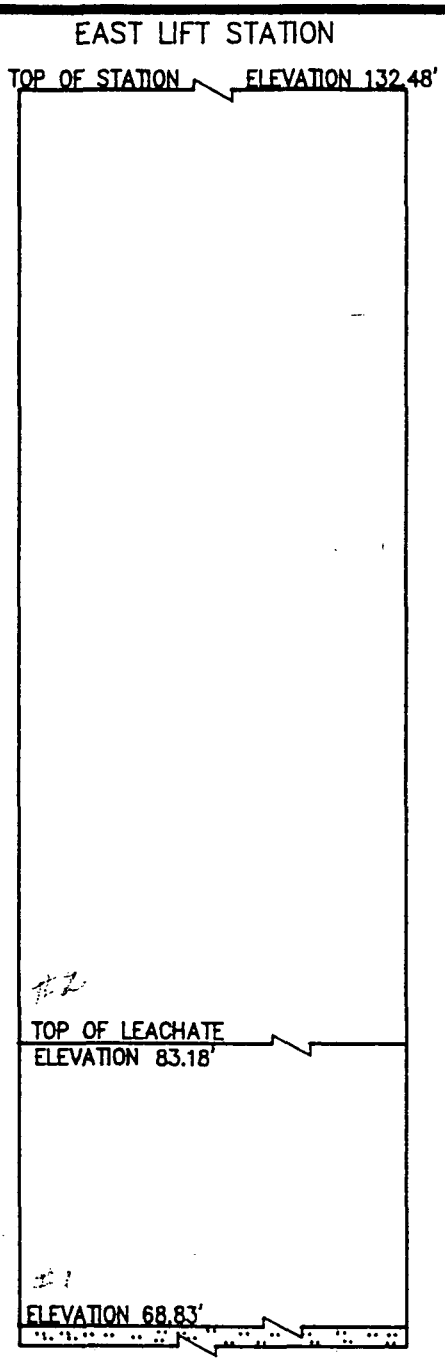
Leachate Removal Rates and Pump Information

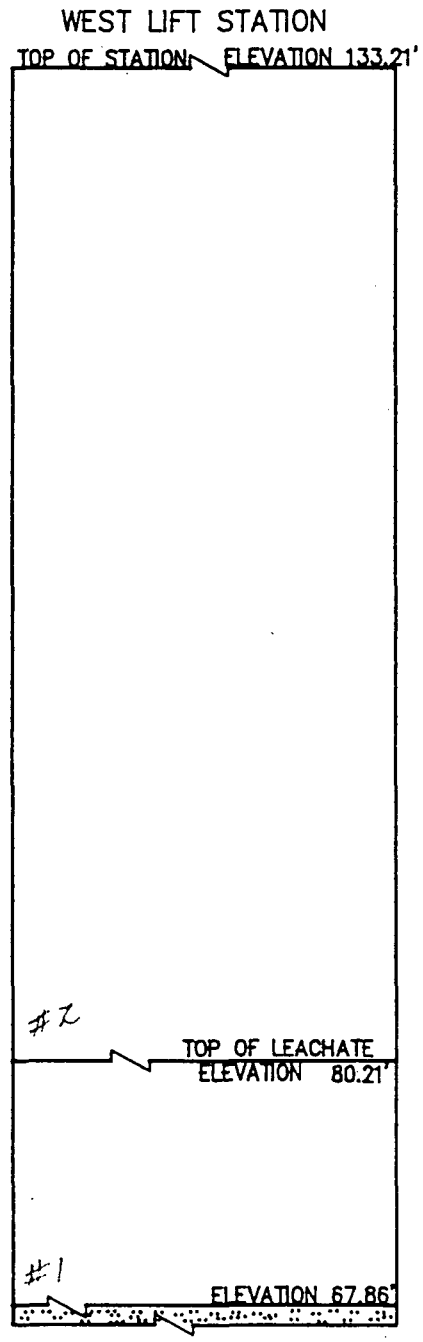
CITRUS COUNTY CENTRAL LANDFILL - LEACHATE OFF-SITE DISPOSAL

PROJECT SUMMARY

DATE	HAULED TO COUNTY OWNED WWTP			HAULED TO PRIVATE OWNED WWTP			TOTAL BY MONTH
	MC	SD	BW	IPS	SSU	COI	
09-94	138200	23088	0	0	0	0	161288
10-94	55289	41992	36000	173937	0	0	307218
11-94	47259	37659	36255	55272	52584	0	229029
12-94	45808	40466	40466	0	140063	0	266803
01-95	46185	31350	30748	0	196615	0	304898
02-95	24210	16204	16204	0	147321	0	203939
03-95	0	0	0	0	210580	47060	257640
04-95	0	0	0	0	178870	62013	240883
05-95	0	0	0	0	73630	55845	129475
06-95	0	0	0	0	164291	57993	222284
07-95	0	0	0	0	179142	41359	220501
08-95	0	0	0	0	253399	68220	321619
09-95	0	0	0	0	251170	65751	316921
TOTAL	356951	190759	159673	229209	1847665	398241	3182498

7 Acre Trench - 60 Acre Site





REFERENCE BENCHMART

BENCHMARK No. TT6CH 31.36' RIGHT OF FLORIDA DEPARTMENT OF TRANSPORTATION CENTERLINE OF STATE ROAD No. 44 STATION 593+17.75. A 6"X6" CONCREATE U.S. GEOLOGICAL SURVEY BENCH MARK MONUMENT. ELEVATION 142.224'

SURVEYOR'S CERTIFICATION

I hereby certify to the best of my knowledge, information and belief and my professional opinion, that the herein described land survey and plat are true and correct and was prepared under my direction and supervision and conforms to the minimum technical standards set forth by the Florida Board of Professional Land Surveyors in Chapter 21HH-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes

Dated this 12 day of FEBRUARY 1993

Patrick L. Henson

Patrick L. Henson Florida Registered Surveyor's No. 4547
Not valid without an original signature and seal.

Citrus County

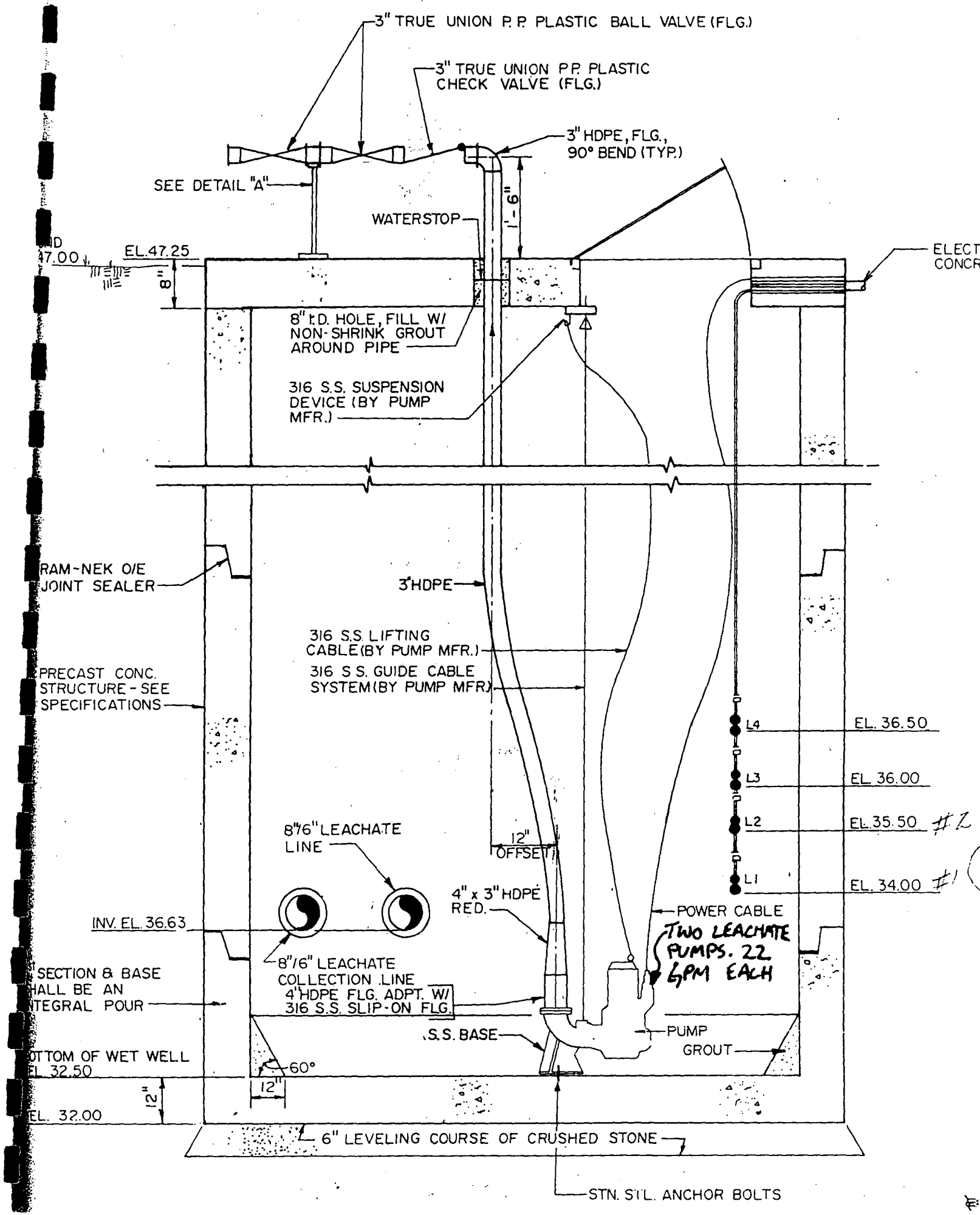
Department of Technical Services
Division of Engineering

ELEVATION SURVEY FOR CITRUS COUNTY

EAST LIFT STATION AND WEST LIFT STATION
SEVEN ACRE TRENCH SIXTY ACRE LANDFILL
SECTION 1, TOWNSHIP 19 SOUTH, RANGE 18 EAST

Drawn by: P.L.H.	Field Book: 8-B
Approved by: P.L.H.	Pages: 31
Field Date: 2-12-93	Proj. No. 89-615
Scale: 1"=10'	Sheet No. 1 OF 1
Sec. 1 Twp. 19 S. Rng. 18 E	

P.O. BOX 440 Lecanto, FL. 32661
Phone: (904)746-2694


3" TRUE UNION P.P. PLASTIC BALL VALVE (FLG.)
3" TRUE UNION P.P. PLASTIC CHECK VALVE (FLG.)
3" HDPE, FLG., 90° BEND (TYP.)
SEE DETAIL "A"
WATERSTOP
1'-6"
EL. 47.25
8"
8" I.D. HOLE, FILL W/ NON-SHRINK GROUT AROUND PIPE
316 S.S. SUSPENSION DEVICE (BY PUMP MFR.)
ELECT
CONCR
RAM-NEK O/E JOINT SEALER
3" HDPE
316 S.S. LIFTING CABLE (BY PUMP MFR.)
316 S.S. GUIDE CABLE SYSTEM (BY PUMP MFR.)
PRECAST CONC. STRUCTURE - SEE SPECIFICATIONS
L4
EL. 36.50
L3
EL. 36.00
L2
EL. 35.50
L1
EL. 34.00
8"/6" LEACHATE LINE
12" OFFSET
4" x 3" HDPE RED.
POWER CABLE
INV. EL. 36.63
TWO LEACHATE PUMPS. 22 GPM EACH
8"/6" LEACHATE COLLECTION LINE
4" HDPE FLG. ADPT. W/ 316 S.S. SLIP-ON FLG.
SECTION & BASE HALL BE AN NTEGRAL POUR
S.S. BASE
PUMP
GROUT
OTTOM OF WET WELL EL. 32.50
60°
12"
12"
EL. 32.00
6" LEVELING COURSE OF CRUSHED STONE
STN. STL. ANCHOR BOLTS

Attachment N

Agreements for Offsite Leachate Treatment and Discharge

Revised

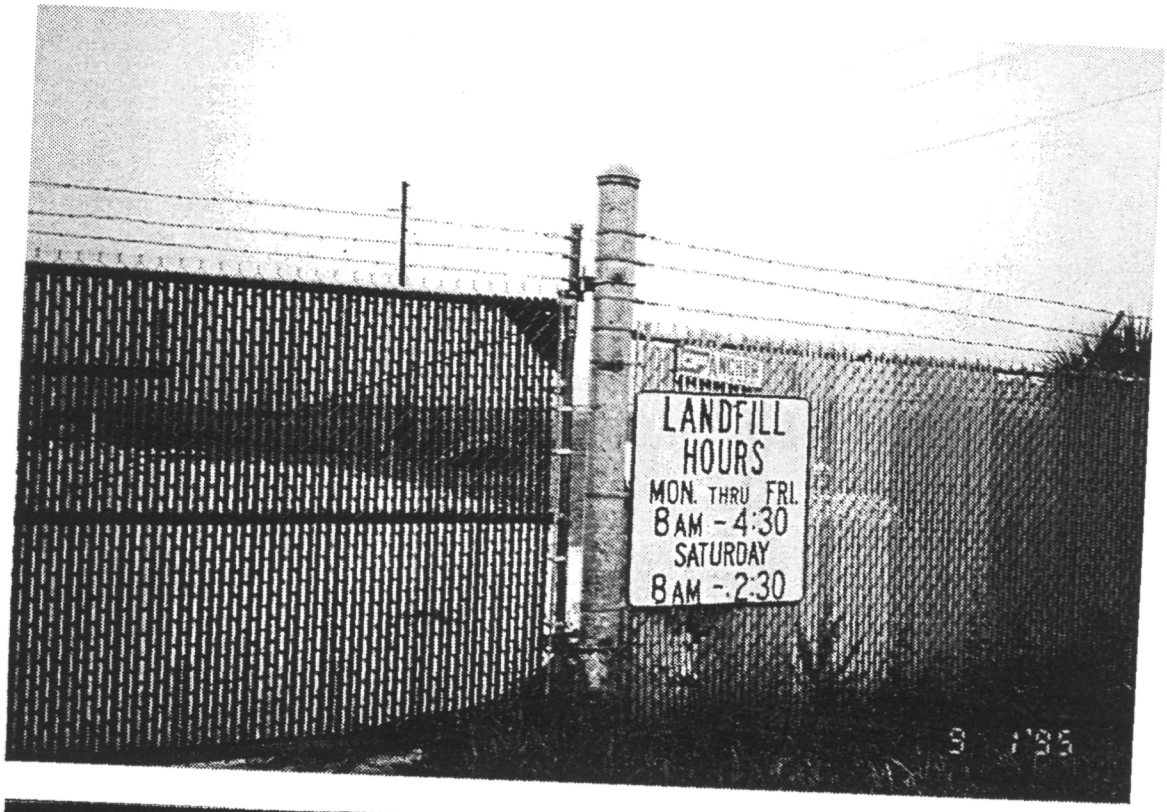
Attachment O

Phase 1 Routine Gas Monitoring Program

Attachment P

Photographs of Signs

117956.28.01 10/95 dek30



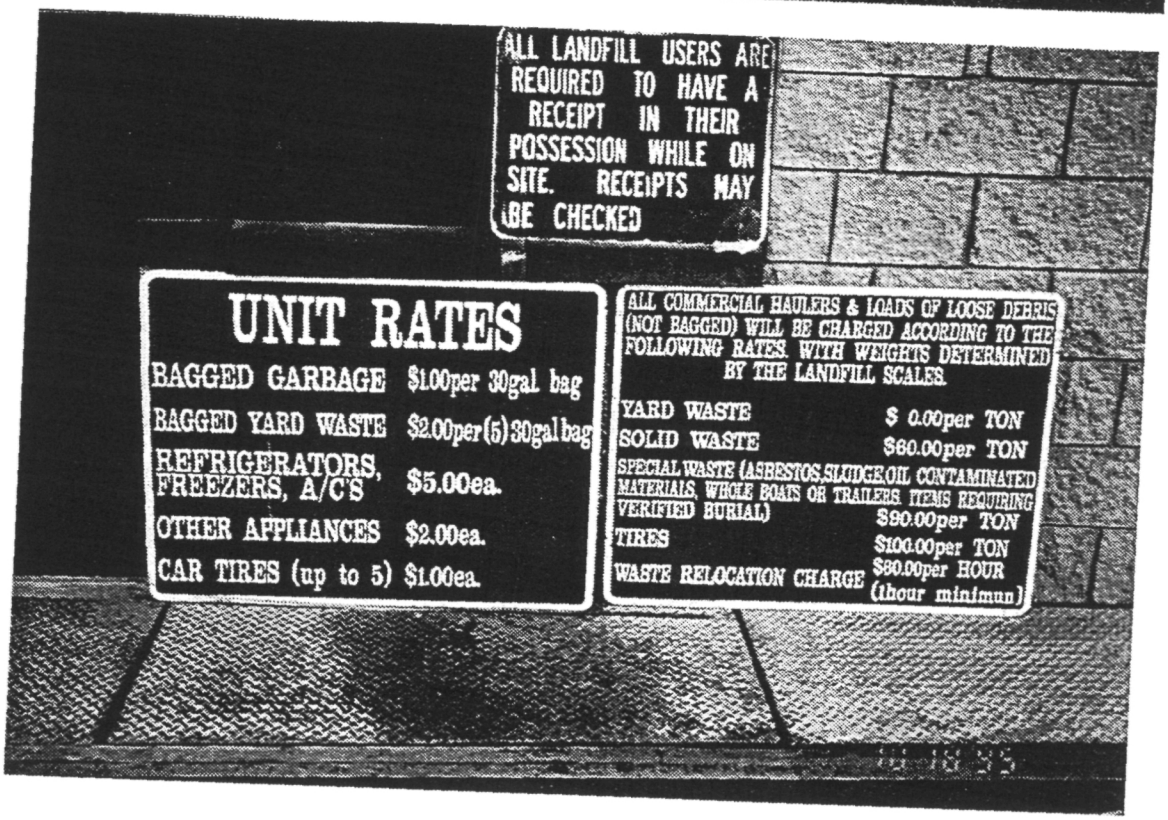


FIGURE P-1
Facility Signs

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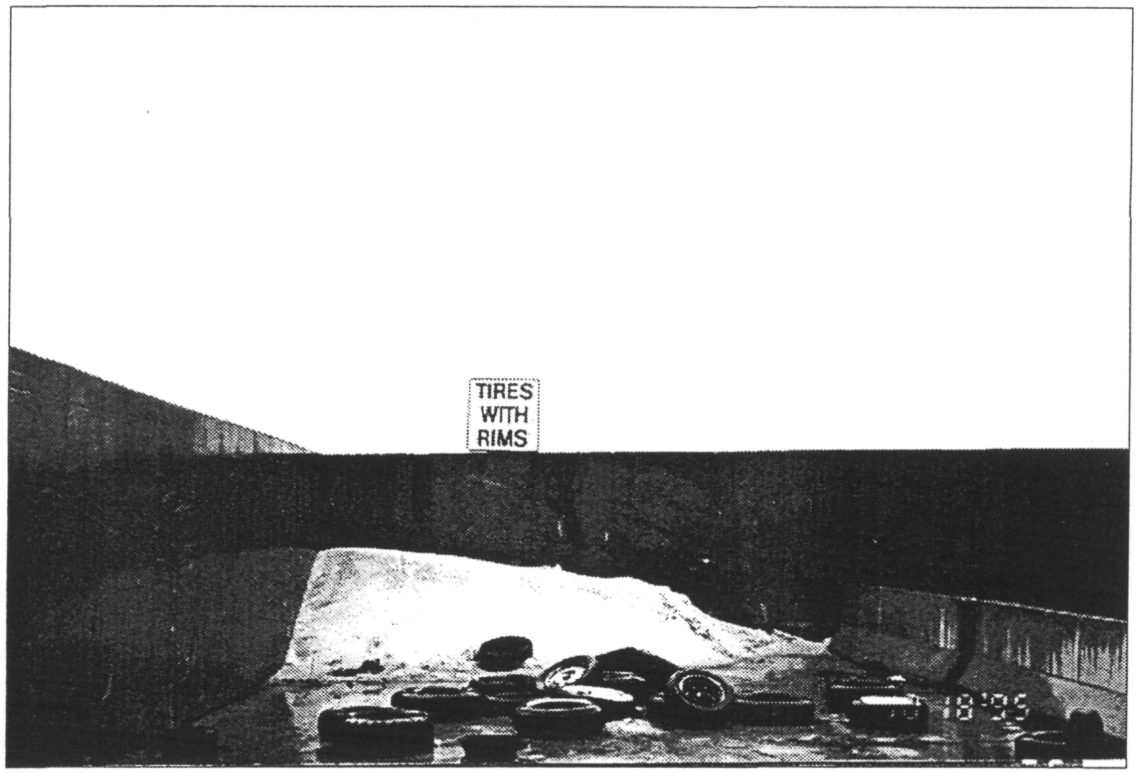

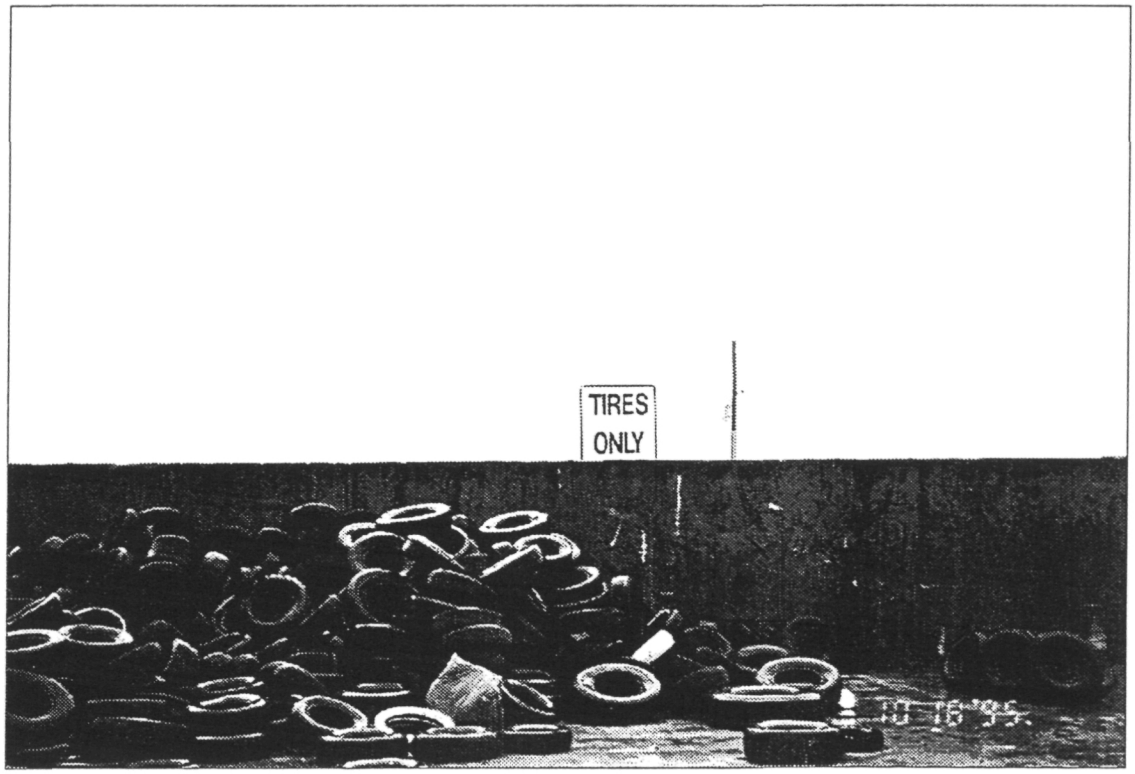

FIGURE P-2
Facility Signs

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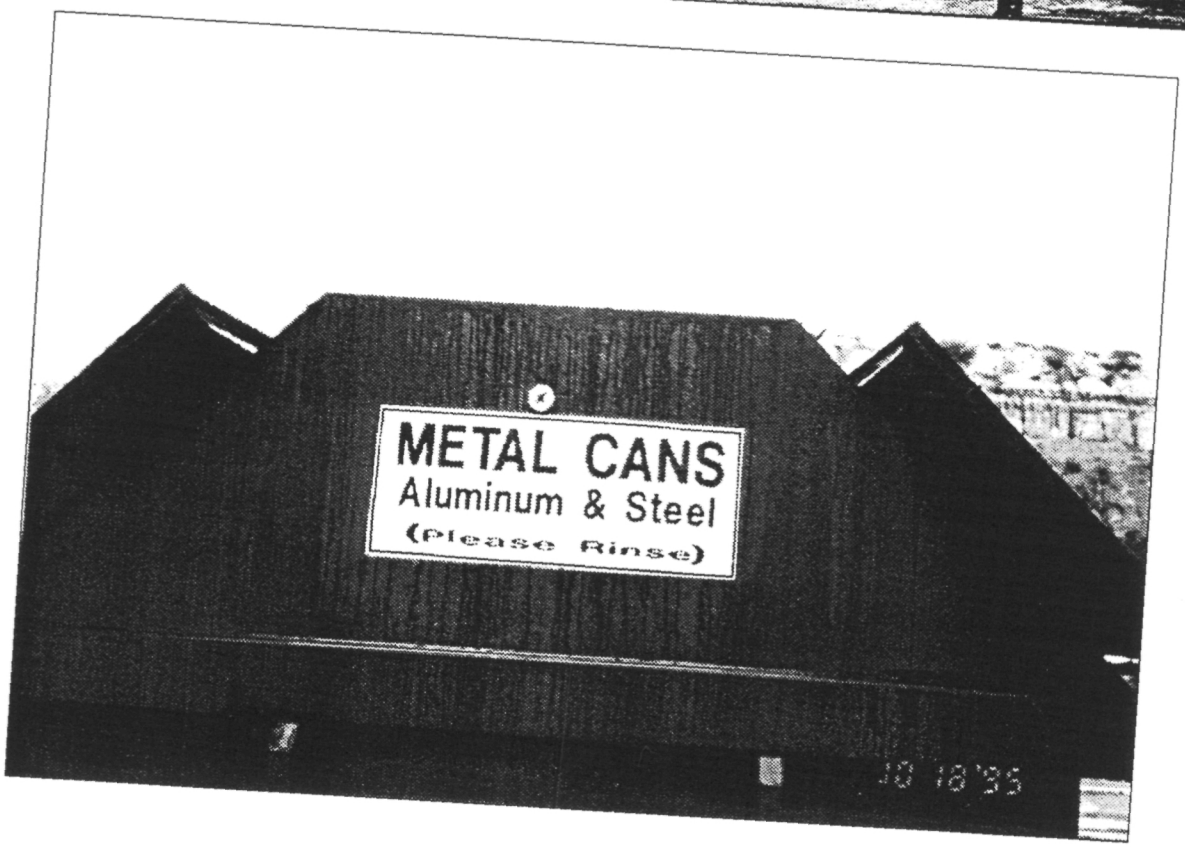

FIGURE P-3
Facility Signs

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