

Florida Department of Environmental Regulation

Southwest District

3804 Coconut Palm

Tampa, Florida 33619

Lawton Chiles, Governor

813-744-6100

Carol M. Browner, Secretary

January 11, 1993

Mr. J.R. Prestridge
Hardee County
Department of Solid Waste
Post Office Box 246
Wauchula, FL 33873

40612

Facility file:
Hardee Co.
" " SWLF

Re: Hardee County Solid Waste Facility
Pending Permits: SO25-214306 (Class I Landfill)
SO25-212896 (C & D Debris)
WT25-209268 (Waste Tire Site)

Dear Mr. Prestridge:

4025C30001 W

This is to acknowledge receipt of supporting information related to the application for Hardee County Solid Waste Facility.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your applications for a permit remains incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste applications [Chapters 17-701 and 17-711, Florida Administrative Code (F.A.C.)]:

1. Provide all the information requested in the Department's October 13, 1992 letter and its attachments.
2. The cost estimates by Wade-Trim dated November 13, 1992 are not acceptable. In order to approve the financial responsibility cost estimates for closure and long-term care, please indicate the source of clay on the plans and provide the permeability of the clay to be used for final cover. Verify that the clay is in sufficient quantity to complete closure and is appropriate for use as final cover so that it can be easily worked to obtain the required permeability and thickness. Also, include the cost of installing gas vents and gas monitoring. In the estimate for leachate management, include the cost of sampling and analyses of treated effluent prior to spraying and monitoring the spray irrigation system. Cost estimates must be signed and sealed by a professional engineer. Approved cost estimates will be forwarded to Mr. Fred Wick of the Solid Waste Section in Tallahassee. You are requested to work directly with him to obtain approval of Hardee County's financial responsibility documents.

Mr. J.R. Prestridge
Hardee County
Department of Solid Waste

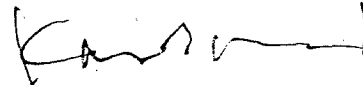
January 11, 1993
Page Two

3. Sufficient information has been provided in support of the construction and demolition debris disposal and waste tire site activities. These will be included as part of one permit when the other remaining issues are resolved.

"NOTICE! Pursuant to the provisions of Section 120.600, F.S. and Chapter 17-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 30 days of the date of this letter, the Department may issue a final order denying your application. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

If there are points which must be discussed and resolved, please contact me at (813) 744-6100, extension 382.

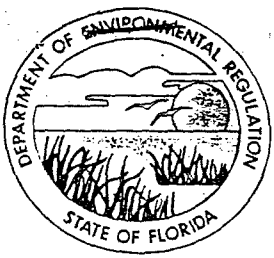
Sincerely,



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

KBF/ab
Attachments

cc: Steven Dutch, P.E., Wade-Trim
Robert Butera, P.E., FDER Tampa
Steve Morgan, FDER Tampa
Mary Yeargan, P.G., FDER Tampa
Kathy Anderson, FDER Tallahassee
Fred Wick, FDER Tallahassee



Florida Department of Environmental Regulation

Southwest District

4520 Oak Fair Boulevard

Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-620-6100

Carol M. Browner, Secretary

October 13, 1992

Mr. J.R. Prestridge
Hardee County
Department of Solid Waste
Post Office Box 246
Wauchula, FL 33873

Re: Hardee County Landfill
Pending Permit No.: S025-214306
Hardee County

Dear Mr. Prestridge:

This is to acknowledge receipt of your applications for landfill operation.

This letter constitutes notice that permits will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your applications for permit remains incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste applications [Chapters 17-701 and 17-711, Florida Administrative Code (F.A.C.)]:

1. In order to approve the financial responsibility cost estimates for closure and long-term care, please indicate the source of clay on the plans and provide the permeability of the clay to be used for final cover. In the estimate for leachate management, include the cost of monitoring the spray irrigation system. Cost estimates must be signed and sealed by a professional engineer. Approved cost estimates will be forwarded to Mr. Fred Wick of the Solid Waste Section in Tallahassee. You are requested to work directly with him to obtain approval of Hardee County's financial responsibility documents.
2. Cross-sections showing both original and proposed fill elevations are required. Proposed fill cross-sections should show the final elevations at the landfill, sequence of filling and lift heights. Plans showing the 1997 final contours cannot be found. Please submit 2 sets of updated plans, signed and sealed by a professional engineer.

3. Source location, quantity, and characteristics of final cover material.
4. A evaluation in report form of the condition and effectiveness of the existing leachate control and removal system performance, spray field including water balance calculations, and the surface water management system. The report shall contain professional conclusions and recommendations and shall be signed and sealed by a professional engineer.

The leachate levels inside the landfill shall remain below the water levels outside the landfill. Provide reasonable assurance to show that an inward gradient will be maintained continuously since this is the basis of FDER's previous approval of the landfill containment and leachate removal system, including the sprayfield.

All monitoring wells and piezometers must be shown on plans. The site evaluation report shall provide conclusions and recommendations regarding the possible need for additional wells and piezometers for the landfill and sprayfield. A water table contour map shall be provided for the wet and dry seasons for the past 12 months. Record drawings of the leachate collection and removal system are requested.

5. Provide the HELP or similar model data that shows the monthly quantity of leachate generated and the monthly quantity of other drainage and seepage expected to reach the dewatering ditch. The total quantity sprayed should be in gallons and include seepage from the landfill, sprayfield, and runoff from the unclosed portions of the landfill.

To confirm the quantity and quality of leachate to be sprayed, provide the past 12 months of data from the monitoring program specified on page 10 of Ardaman's March 20, 1987 report and the past 12 months of data from permit SO25-096551 specific condition #9 (see attachments).

6. Information found in previous reports from the FDER's files indicate Hardee County has been allowed to spray up to 2 inches of leachate in one day, based on spraying only once per week. This application rate equates to 250,000 gallons of leachate sprayed in one day which is not acceptable. For more recent projects a maximum application of .2 inches in one day was used to prevent runoff of "treated effluent".

Please provide the HELP or similar model data that shows the maximum daily rate of spray irrigation included with rainfall to determine how many days runoff would be expected and how many days of storage would be required for the leachate dewatering ditch/holding pond. The model should consider the slope and characteristics of the final cover and the soil and runoff characteristics of the sprayfield. Explain how runoff will not occur from spray irrigation based on the following condition:

This permit allows spray irrigation of a maximum 5,000 gallons per day (24 hours) at an application rate of .20 inches per day of leachate from the associated dewatering ditch. Under no circumstances shall leachate be allowed to discharge as runoff to adjacent stormwater systems or conveyance ditches. Spraying shall take place only when runoff into the onsite retention areas downgradient from the spray areas has terminated for 24 hours. The aforementioned is based on daily inspections of the influent point to retention area, or as follows, whichever is more restrictive:

- a. at least 4 hours after a rainfall of 1/4" or less, or
- b. at least 24 hours after a day or rainfall of 1/4" or 1",
or
- c. at least 48 hours after a day or rainfall of 1" or
greater

The ... "maximum 5,000 gallons per day (24 hours) at an application rate of .20 inches per day" ... is used as an example and may be revised to fit actual site conditions. All other parts of this permit condition will remain unchanged. A berm/swale system may be required along the south border of the sprayfield to allow runoff to be more easily detected. Plans shall show the location of all sprayheads and the spraying pattern of each. An operations manual for the spray irrigation system is requested.

7. Your response to Mary Yeargan's June 26, 1992 attached memorandum. Ms. Yeargan may be contacted at (813) 744-6100, extension 376.

"NOTICE! Pursuant to the provisions of Section 120.600, F.S. and Chapter 17-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 30 days of the date of this letter, the Department may issue a final order denying your application. If the response will require longer than 30 days to develop, you should develop a specific time table

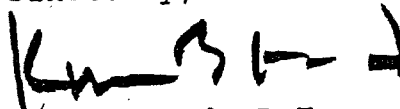
Mr. J.R. Prestridge
Hardee County Department of
Solid Waste

October 13, 1992
Page Four

for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of a timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

If there are points which must be discussed and/or resolved, please contact me at (813) 744-6100, extension 382.

Sincerely,



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

KBF/ab

cc: Steven Dutch, P.E., WADE-TRIM
Robert Butera, P.E., FDER Tampa
Steve Morgan, FDER Tampa
Mary Yeargan, P.G., FDER Tampa
Kathy Anderson, FDER Tallahassee
Fred Wick, FDER Tallahassee

Anderson

Leachate Collection System

A leachate collection system is required at the site to collect and convey the leachate to the dewatering ditch and to prevent leachate from building up within the landfill and from exiting the above ground landfill side walls in the future. In addition, the leachate collection system will lower the hydraulic head necessary for recharge into the underlying aquifer.

We recommend a peripheral leachate collection underdrain on the west, north and east sides of the landfill. The underdrains should be a minimum of 4 feet below natural ground and should slope toward the dewatering ditch. Figure 6 illustrates two alternative leachate collection underdrain design concepts.

The first alternative consists of a minimum 14-inch wide trench and an 8-inch diameter corrugated, slotted HDPE pipe completely surrounded by at least 3 inches of clean filter aggregates. Though the anticipated steady-state leachate flow of approximately 0.004 gpm per lineal feet of pipe can be handled by a 6-inch diameter pipe, we recommend using a minimum 8-inch inside diameter underdrain pipe for clean out purposes.

The second alternative consists of a minimum 24-inch wide trench and an 8-inch diameter corrugated slotted HDPE pipe completely surrounded by at least 3 inches of locally available coarse concrete aggregates which in turn is completely wrapped in a filter fabric as shown in Figure 6.

The underdrain pipe should meet ASTM F-667 specifications for corrugated heavy duty polyethylene tubing and fittings.

The filter aggregate or concrete aggregate that surrounds the slotted pipe should be clean, non-calcareous, and should not be susceptible to attack from acids and alkalis with a pH of 3 to 11 and must be sized to prevent the backfill above the filter aggregate from entering the filter system and to prevent the filter aggregate or concrete aggregate from entering the slotted pipe.

The specifications for the leachate collection system are provided in Appendix 7.

Monitoring Program

A monitoring program is proposed for the LAS. The following monitoring program will serve to aid in operation of the system:

- Flow meter to monitor leachate generation
- Raingage at spray irrigation site
- Water table monitoring wells
- Staff gage in holding pond (i.e., dewatering ditch)
- Flow meter on irrigated water

The flow into the dewatering ditch will be documented by the raingage and the flow meter. The change in storage level in the ditch will be documented by the staff gage in the pond. The flow meter on the irrigated water and site raingage

PERMITTEE:

Samuel L. Rauls, Chairman PERMIT NO.: SO25-096551
Hardee County Class I Sanitary Landfill

SPECIFIC CONDITIONS (con't):

7. (con't):

D. Data from each of the above sampling efforts shall be submitted to the Southwest District Office, C/O Solid Waste Section, within 30 days after collection.

8. The permittee shall ensure that neither ponding nor run-off from the spray site occurs as a result of the spray irrigation. The Department considers ponding to be any residual which remains on the surface sufficient time to contaminate stormwater runoff or otherwise be environmentally objectionable due to odor or public health criteria. Vegetation on the spray site shall be cropped regularly. Spray nozzles are to be regularly inspected for proper operation.

9. The spray irrigation system for leachate disposal shall be sampled initially and quarterly thereafter for the following parameters. Results shall be submitted along with results from the groundwater monitoring well samples. Leachate shall not be spray irrigated on unlined areas if violations of standards for Class III surface water bodies occur. This shall include the standards outlined in Chapter 17-3.051, along with

Quantity	Total Organic Carbon
Dissolved Oxygen	Iron
pH	Turbidity
Specific Conductance	Lead
Total Coliform	

10. Evidence of methane gas buildup or migration may necessitate installation of measures to control such buildup and/or migration in addition to those proposed.

11. An adequate Quality Control Plan shall be submitted to the Department, C/O Solid Waste Section, Southwest District Office, 30 days prior to liner installation/construction. The Quality Control Plan shall include installation/construction personnel, all specifications and construction methods, and liner testing procedures and sampling frequency. The liner material proposed for use shall be completely described. Laying of the liner shall comply with specified standards that are fully defined in the Quality Control Plan. An acceptable method of testing for pinholes and method for removing or patching pinholes and defective areas shall be completely described. Sampling and testing shall be conducted in the field during construction and after completion by qualified personnel under the direction of the professional engineer in charge to assure the liner will meet the performance standards.



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Kim Ford, P.E.

THROUGH: Robert Butera, P.E. II *RB 10-27-92*

THROUGH: Diane Trommer, P.G. II *DT 10-27-92*

FROM: Mary Yeargan, E.S. III *my 10/27/92*

DATE: October 27, 1992

SUBJECT: Hardee County Regional Landfill
Renewal of Class I Landfill Operating Permit
Permit Application #S025-214306

.....
The Groundwater Cleanup Section has reviewed the response to our June 26, 1992 comments on the Application for Permit to Operate Solid Waste Resource Recovery and Management Facility. We have the following comments:

- 1) This application should be a complete document that can stand alone. All information and items in Section 17-522.600, Florida Administrative Code (FAC) (formerly Section 17-28.700(6)(d), FAC), shall be provided. The geological information and analytical data should be updated, summarized and evaluated to determine whether the existing Groundwater Monitoring Plan (GWMP) is sufficient for this application.
- 2) Monitor well construction details and lithology logs should be provided for monitor wells MW-1, MW-2 and MW-3.
- 3) Water table maps for the wet and dry seasons were requested in our memo of June 26, 1992. It was noted in the recent response from Wade-Trim, Inc., on the groundwater elevation map, that the side liner and the drainage ditches restrict the interpretation and contouring of the groundwater table. The effect of the dewatering ditch and the side wall liner on the water table should be evaluated. Based on the groundwater elevations from monitor well MW-3, there is mounding and possibly an outward gradient from the dewatering ditch during the wet season.
- 4) In the March 20, 1987 report "Leachate Collection and Disposal System Hardee County Regional Sanitary Landfill,

Hardee County, Florida" it was recommended on page 10 that a monitoring program be used in the operation of the Land Application System. One of the recommendations was the use of a staff gage in the dewatering ditch. If the staff gage was installed, all data collected to date should be provided to the Department. If there is no staff gage, this should be required as a Specific Condition in the new permit.

- 5) Water level information (NGVD) was provided for the monitor wells. We requested that this data include top of casing elevations, depth to water measurements, corresponding water level elevations and monitoring interval length.
- 6) A summary of analytical data for leachate indicator parameters for all sampling periods, in tabular form, was requested, but not provided.
- 7) The only analytical parameter that has consistently exceeded maximum contaminant levels is iron. Other parameters that should be evaluated, especially for monitor wells MW-6 and MW-7, are conductivity, total dissolved solids, chlorides and sodium. There appears to be a trend towards higher values for these parameters for these wells. This may be significant since these monitor wells are adjacent to the leachate spray field.
- 8) Groundwater monitoring parameters should be expanded to include additional parameters for permit renewal, annual parameters and quarterly parameters.
- 7) Section 17-4.050(3), F.A.C., states that where required by Chapter 471 or 492, Florida Statutes (F.S.), applicable portions of permit applications and documents which are submitted to the Department for public record shall be signed, sealed and dated by the professional(s) who prepared or approved them. Geological portions of documents and submittals should be signed, sealed and dated by a Florida registered professional geologist in accordance with Chapter 492, F.S., and engineering portions of documents and submittals should be signed, sealed and dated by a Florida registered professional engineer in accordance with Chapter 471, F.S.

Please have the applicant respond to the above items. If you have any questions, please call.

MEY