



Florida Department of  
**Environmental Protection**

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Governor

Southwest District  
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Tampa, Florida 33619  
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Virginia B. Wetherell  
Secretary

41193

December 29, 1993

Ms. Patricia Berry  
Department of Solid Waste  
Hillsborough County  
Post Office Box 1110  
Tampa, FL 33601

4029 C30075 M

**Re: SE Landfill Phases 5 and 6 Certification  
Permit #SO09-158504, Hillsborough County**

Dear Ms. Berry:

This office has several comments and concerns regarding Phases 5 and 6 to be resolved prior to DEP authorizing the operation of these future disposal areas. Please respond to the attached December 29, 1993 memorandum to Robert Butera. If you have any questions, you may call me at (813) 744-6100, extension 382.

Sincerely,

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

KBF/ab  
Attachment

cc: Daryl Smith, HCSW  
Robert Butera, P.E., FDEP Tampa  
Paul Schipfer, HCEPC

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JAN 11 1994

BUREAU OF SOLID AND  
HAZARDOUS WASTE

Florida Department of  
Environmental Protection

Memorandum

TO: Robert Butera, P.E. *RB*  
Solid Waste Manager  
Waste Management

FROM: Kim Ford, P.E. *KF*  
Solid Waste Section  
Waste Management

DATE: December 29, 1993

SUBJECT: SE Landfill Phases 5 and 6 Certification

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Permit SO29-158504 authorized the operation of Phases 1, 2, 3, and 4 and construction of Phases 5 and 6. This permit was issued on December 12, 1989 and expires on December 1, 1994.

Construction certification for Phases 5 and 6 was submitted on February 8, 1993. The following comments and concerns are based on a review of Volumes I and II of the certification.

The design and operation of this landfill is unusual. A brief description for several of the components are required. The operation of these components is critical to the proper management of the landfill. The components are:

- Temporary sumps
- Valves
- Perforated end caps
- Pipes connecting existing to future phases
- Riser pipes
- 16" PE pipe
- 36" RC pipe
- Interior berms between existing and future phases
- Interior grades to promote stormwater drainage
- LCRS grades to remove leachate

The following are concerns noted from a review of the related certification documents that shall be explained:

Appendix B - Daily Field Reports

2-14-90

Observed a mud wave of the existing phosphatic clays in Phase VI, 18"-24" high due to placing special fill.

Memo to Robert Butera, P.E.  
SUBJECT: SE Landfill Phases 5 and 6 Certification  
December 29, 1993  
Page Two

3-13-90

Mud wave 12" high observed along leading edge  
of special fill placement.

10-29-90

Test pits dug 10'-15' deep to establish thickness  
of clay lense and backfilled with sand.

11-2-90

Large crack in clay layer observed along north  
berm excavation. Work discontinued until  
June 1991. North berm backfilled with sand and  
compacted during July 1991.

7-23-91

Clay previously placed in west perimeter ditch was  
excavated and ditch backfilled with sand tailings

7-24-91

Perimeter berm and anchor for liner construction  
modified to reduce clay excavation and backfilling.

8-12-91

Factory seams separate.

8-13-91

"Liner temperature at 131°F at 1110 hrs, factory  
seam able to tear apart with ease".

9-19-91

Work on LCRS discontinued due to crushed granite  
rock containing wood and limestone.

10-22-91

Liner seam split open while installing LCRS.

10-24-91

Liner seams become unbonded while air lance  
testing at 120 psi. 50% of the liner seaming at  
temperatures above 120°. 90% of the air lance  
testing at less than 120 psi.

Memo to Robert Butera, P.E.  
SUBJECT: SE Landfill Phases 5 and 6 Certification  
December 29, 1993  
Page Three

Appendix M - Seaming Log

8-9-91 - 8-26-91

Liner temperatures from 121°F to 148°F while seaming.

Appendix N - Seaming

8-12-91 - 8-30-91

All air lance testing at less than 100 psi.

Appendix R - Correspondence for LCRS Construction

10-1-91

Letter from Geosyntec Consultants states  
"Typical industry specifications require that  
the carbonate content of leachate collection  
materials be less than or equal to 15 percent".

5-22-92

Geosyntec plans for the berm and liner  
construction show that the Phase IV Temporary Sump  
on Sheet 3 located in Phase VI appears to  
collect leachate. Leachate collection in  
Phases 5 and 6 is not authorized by DEP.

7-23-92

Hollingworth plans for the berms and grades for  
Phases 5 and 6 do not show grading for positive  
drainage of the surface to the west to separate  
and remove stormwater from leachate.

Other related concerns that shall be addressed prior to allowing  
operation of Phases 5 and 6 are as follows:

- Future well points
- Removal of temporary sumps
- Removal of interior berms
- Stormwater drainage and removal
- Leachate containment and removal
- Daily operation plans
- Sequence of filling (plans and cross-sections)
- Temporary piezometers in Phases 5 and 6

KBF/ab