

February 20, 2012

Steven G. Morgan
Solid Waste Section
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

FEB 20 2012

SOUTHWEST DISTRICT

RE:

Response to Request for Additional Information No.1

Operations Permit Minor Modification Application

Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9)

Hillsborough County Southeast County Landfill

FDEP Permit No. 35435-014-SO/01 FDEP ID No. SWD/29/41193

Dear Mr. Morgan:

On behalf of Hillsborough County Public Utilities Department, Solid Waste Management Group (SWMG), HDR Engineering, Inc. (HDR) is pleased to provide the following information in response to the Florida Department of Environmental Protection's (FDEP) January 11, 2012 Request for Additional Information (RAI#1) regarding the Operations Permit Minor Modification Application for Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9) at the Hillsborough County Southeast County Landfill.

All revisions to the narrative reports are shown with deletions struckthrough (struckthrough) and additions underlined (underlined) along with a change line indicator in the left margin.

Responses to each of the comments in the January 11, 2012 RAI are provided below in the same order presented in the RAI. In each case the FDEP request is repeated in italics with the response immediately following in **bold**.

The following attachments are enclosed with the response document and are referenced in the responses to comments:

ATTACHMENT A REVISED SUPPORTING INFORMATION AND OPERATIONS PLAN

PAGES

ATTACHMENT B REVISED PHASES I-VI OPERATING SEQUENCE DRAWINGS

ATTACHMENT C REVISED CAPACITY EXPANSION AREA (SECTIONS 7, 8, AND 9)

OPERATING SEQUENCE DRAWINGS

APPLICATION FORM #62-701.900(1) - SUPPORTING INFORMATION (RULE 62-701.320(7)(B), F.A.C.)

Comment 1. <u>Part D.9</u>: This section provides that the temporary final cover in Phases I-VI will include "installing temporary drainage berms and down chutes structures". However the Phases I-VI operating sequence drawings provided do not appear to identify or provide details for the temporary berms and appear to only identify and provide details of the down chutes structures over the final cover system. Please verify and revise the operating sequence drawings accordingly.

Response 1: The intent of describing that temporary drainage berms and downchute structures will be installed over the temporary final cover was to indicate that these structures will be placed as needed during normal operations at the working face to control and direct stormwater runoff away from the disposal areas. The working face constantly moves, therefore, it is not practical to show every possible location of temporary berms and downchutes in the Operating Sequence Drawings. As indicated in Details 3 and 4 of the revised Sheet Drawing No. 20, downchute details were provided for a geomembrane final cover system. An additional note 2 indicates that downchutes will be constructed with either a temporary final cover or geomembrane final cover system depending on current fill sequence. The SWMG will continue to manage the Facility's Stormwater Management System as indicated in Section L.10 of the Operations Plan and the Stormwater Permit. Please refer to revised Part D.9 included in Attachment A.

ATTACHMENT A – UPDATED OPERATION PLAN (RULE 62-701.500, F.A.C.)

Comment 2. <u>Section L.7.h.(1)</u>: Please revise the description in this section to include the installation of temporary stormwater berms and down chutes in Phases I-VI (See Comment #1 above).

Response 2: Refer to response 1 and revised Section L.7.h.(1) included in Attachment A.

ATTACHMENT B - UPDATED PHASES I-VI OPERATING SEQUENCE DRAWINGS (RULE 62-701.500, F.A.C.)

Comment 3. Since the drawings provided only replace certain drawings in the currently permitted Southeast County Landfill Phase I-VI Operating Sequence plan set, please revise the drawing numbers on the replacement drawings provided to match the drawing numbers in the permitted plan set (e.g. submitted Drawing C-03 is Drawing 10 in the permitted plan set).

Response 3: Please refer to Attachment B for revised Phases I-VI Operating Sequence Drawings, showing revised sheet numbers per the currently permitted FDEP plan set. Only the sheet numbers have been revised from the original minor modification submittal. No other changes were made to the Operating Sequence Drawings.

Comment 4: Please verify that, although the submitted drawings still depict filling over the sinkhole area during Lifts 17, 22, and 23, it is still the County's intention to provide revised fill sequence plans that eliminate further filling within a designated vicinity of the sinkhole area, prior to the fill sequence in Phases I-VI reaching Lift 17.

Response 4: The County continues with efforts in remediating the sinkhole developed within the western edge of the Phases I-VI landfill. Currently, a Geophysical/Geotechnical Investigation is being conducted to characterize and to understand the lateral and vertical extent of the sinkhole. Based on the results from the Geophysical/Geotechnical investigation, a final remediation plan will be prepared. Final actions may include additional efforts to stabilize and seal the sinkhole using grout and repairs to the affected clay liner system.

Once the sinkhole repair activities have been completed and accepted by FDEP, a revised fill sequence in the vicinity of the sinkhole will be provided. No changes to the Phases I-VI Operating Sequence Drawings are required at this time.

ATTACHMENT C – UPDATED CAPACITY EXPANSION AREA SECTIONS 7, 8, AND 9 OPERATING SEQUENCE DRAWINGS (RULE 62-701.500, F.A.C.)

Comment 5. Since the drawings provided only replace certain drawings in the currently permitted Southeast County Landfill Capacity expansion Area Sections 7, 8, and 9

Operating Sequence plan set, please revise the drawing numbers on the replacement drawings provided to match the drawing numbers in the permitted plan set (e.g. submitted Drawing C-03 is Drawing 7 in the permitted plan set).

Response 5: Please refer to Attachment C for revised Capacity Expansion Area Sections 7, 8, and 9, Operating Sequence Drawings, showing revised sheet numbers per the currently permitted FDEP plan set. Only the sheet numbers have been revised from the original minor modification submittal. No other changes were made to the Operating Sequence Drawings.

If you have any questions or concerns regarding the comment responses or attached documents, please contact me at (813) 262-2731.

Sincerely,

HDR Engineering, Inc.

Carlos A. Restrepo, P.E.

Sr. Project Engineer

cc: Patricia V. Berry, PUD

Megan J. Miller, PUD

Larry E. Ruiz, PUD

Dept. of Environments

Protection

FEB 20 2012

Southwest District

ATTACHMENT A REVISED SUPPORTING INFORMATION AND OPERATIONS PLAN PAGES



Hillsborough County
Public Utilities Department
Solid Waste Management Group

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FEB 20 2012
SOUTHWEST DISTRICT TAMPA

Operations Permit Minor Modification Application Phases I-VI and Capacity Expansion Area (Section 7, 8, and 9) of the Southeast County Landfill Hillsborough County, Florida

December 2011 Revised February 2012

Prepared for: Hillsborough County Public Utilities Department Solid Waste Management Group 925 E. Twiggs Street Tampa, Florida 33602

Prepared by: HDR Engineering, Inc. 5426 Bay Center Drive, Suite 400 Tampa, Florida 33609-3444 (813) 282-2300

HDR Project No. 096-171431-001 Florida Certificate of Authorization No. 00004213

D.9 DRAWINGS

Engineering drawings meeting the requirements of FAC 62-701.320(7)(f)(6) are provided in Attachment B (Phases I-VI Updated Operating Sequence Drawings) and Attachment C (Sections 7, 8, and 9 Updated Sequence Drawings). The updated sequence drawings include the following revisions:

- Sheets C-03 through C-05 of the Phases I-VI Updated Operation Sequence Drawings show that the final cover with a geomembrane has been revised to indicate a temporary final cover through all interim lifts (lifts 13 through 21). The temporary final cover system will consist of grading the slopes to promote drainage, installing (as needed) temporary drainage berms and downchute structures at the active working face to direct stormwater runoff away from the disposal areas, and seeding and mulching or sodding slopes to promote vegetation.
- Sheet C-07 of the Phases I-VI Updated Operation Sequence Drawings shows that the final cover on lift 23 has been revised to indicate a final cover with a geomembrane to cover the entire Phase I-VI area after reaching final design grades;
- Sheet C-06 of the CEA Sections 7, 8, and 9 Updated Operation Sequence Drawings show that the final cover system in lift 18 has been revised to indicate a temporary final cover system on the south and east side slopes and an intermediate cover system on the west and north side slopes. The temporary final cover along the south and east side slopes will remain until the final lift in Sections 7, 8, and 9 is completed. The intermediate final cover will be applied to the west and north side slopes since future sections of the CEA will be constructed contiguous to these side slopes. The temporary final cover and intermediate cover areas will be sodded to avoid slope erosion.
- Updated facility site plan;
- Included Landfill Gas Collection System; and
- Included temporary final cover and intermediate cover cross-section details.

Considerations for changes to cover systems in Phases I-VI and CEA Sections 7, 8, and 9 meet the requirements of the FDEP Rules 62-701.600(9)(a) and (b) based on the following criteria:

- The temporary final cover system for Phases I-VI and the CEA Sections 7, 8, and 9 allows for a continuous biological degradation of the waste since a geomembrane is not installed during interim lifts and due to future lifts being contiguous with the previous lifts.
- The Phases I-VI and the CEA Sections 7, 8, and 9 were constructed in compliance with permit conditions and have a leachate collection system.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FEB 20 2012 SOUTHWEST DISTRICT TAMPA

ATTACHMENT B **REVISED PHASES I-VI** OPERATING SEQUENCE DRAWINGS Full size drawings are provided as a separate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

FEB 20 2012

SOUTHWEST DISTRICT TAMPA

ATTACHMENT C REVISED CAPACITY EXPANSION AREA (SECTIONS 7, 8, AND 9) OPERATING SEQUENCE DRAWINGS

Full size drawings are provided as a separate