



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

Ms. Susan Metcalfe, P.G., Director  
Citrus County Solid Waste Division  
P.O. Box 340  
Lecanto, FL 34460-0340

December 18, 2008

RE: Citrus County Central Class I Landfill 7-Acre Re-closure  
Pending Permit No.: 21375-014-SF/01, Citrus County  
WACS No.: SWD/09/39859

Dear Ms. Metcalfe:

This is to acknowledge receipt of the permit application prepared by SCS Engineers, dated and received November 18, 2008 for permit to re-close a 7-acre portion of an existing Class I landfill, referred to as the Citrus County Central Class I Landfill (Phase 3), located on S.R. 44, 3 miles east of Lecanto, Citrus County, Florida.

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

Your application for a permit is incomplete. This is the Department's first request for information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

## GENERAL:

1. The requested information and comments below do not necessarily repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.
2. Please submit 4 copies of all requested information. Please specify if revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded shaded or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.
4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]:

1. **Rule 62-701.320(7)(b), F.A.C.** Application Form #62-701.900(1), Part A.4: The WACS ID # for this facility is SWD/09/39859. Please revise this Part accordingly.

**SECTION E (Rule 62-701.320, F.A.C.):**

2. **Sections E.7:**

a. Please explain how the laid out liner will be held in place prior to welding to the bottom liner.

b. Please explain how the edge of the existing bottom liner will be located and revise the excavation & geomembrane specifications to specify the procedures for locating and tying to the bottom liner, where not already specified.

c. Please explain the rationale for installing the gas vent after final cover (liner and 2 ft of overlaying soil) installation rather than installing the gas vent prior to liner installation to prevent damage to the final cover system, which is typical industry practice.

3. **Section E.13:** Please publish the attached Notice of Application and provide proof of publication to the Department.

**Attachment E-1 - Permit Application Drawings**

Please provide the following additional information and revisions to the Construction Drawings that include all necessary details for the construction of the facility. The drawings will be reviewed in their entirety after the responses to this request for information.

4. **Sheets 4 through 8 of 10:**

a. Please revise the appropriate section to show the approximate location of the existing PVC cap.

b. Please revise "Cap/Bottom Liner Tie In (TYP.)" detail reference on these sheets to provide a cross-reference to the cap/bottom liner detail on Sheet 10 of 10.

5. **Sheet 6 of 10:**

a. **Section G:** Please revise this section to show the location of the leachate collection riser and leachate force main piping.

6. **Sheet 10 of 10:**

a. **Section M:** Please revise this section to show the final cover system.

b. **Section L:**

1) Please verify that a Department Air Resources permit or permit modification is not required for the passive flare.

2) Please provide a detail of the leachate collection riser that shows the replaced leachate and condensate piping.

- 3) Please provide a detail of the liner connections to the leachate collection riser.

c. Detail 1:

- 1) Please revise this detail to show the extent of the area of the final cover system that will be excavated/peeled back for gas vent installation.
- 2) Please revise this detail to indicate that the soils replaced above the "liner material" and boot will be the same soils specified for the protective layer and top soil layer.
- 3) Please provide a boot detail.

d. Detail 5: Please identify where the existing PVC cap is in this detail and explain in Section P.3.e of the application how the existing PVC cap (assumed to already be tied-in with the bottom liner) will impact the tie-in of the new final cover liner to the bottom liner.

**Attachment E-2 - Technical Specifications (Rules 62-701.400(3), (7) and (8))**

Please revise the Technical Specifications and/or other referenced application documents, as appropriate, to address the following comments and/or inconsistencies. It is highly recommended that the applicant and/or consultant review previously approved technical specifications for liner system submitted for other solid projects by the applicant and/or the consultant in the Southwest District. The Technical Specifications will be reviewed in their entirety after receipt of this information.

7. Please provide geotextile specifications for the "geotextile donut" and the passive landfill gas flare.

8. **Section 01 30 10 - Contractor Submittals:**

a. Part 1.05.I.2.: The changes and deviations described in this part do not appear to be consistent with the acceptable tolerances provided in several specification sections and the CQA Plan. Please verify and revise as appropriate.

9. **Section 02 25 00 - Permanent Erosion Control:**

a. Part 3.01.A.3.: Please revise this part to indicate that pins shall not be utilized over areas of the final cover system where damage to the liner system may occur.

b. Part 3.01.B.1.: Please revise the appropriate permit application drawing to provide a detail of the anchor trench that show its orientation in the final cover system, where applicable.

10. **Section 31 20 00 - Excavation, Trenching, Backfilling, and Grading:**

a. Part 2.01.C.: Please revise this part to clarify that the soils will meet the specifications of Part 2.04 of this section.

b. Part 2.03.B: Please explain why there would be any stones in bentonite, in pellet or chipped form, and revise this section, as appropriate.

c. Part 2.06.C.: Please revise this part to specify that testing will occur every 5000 CY and one every change in borrow source or material.



d. Part 3.03.A.: Please revise this part or an appropriate part of this section to specify the procedures in the event that waste is encountered outside the expected limits of waste during excavation and regrading.

11. **Section 32 91 20 - Landfill Final Cover System:**

a. Part 1.02.B.: This part indicates that protective soil layer material has unspecified soil classification. However specifications for this soil appear to be provided in Part 1.03.A.2. of this section. Please verify and revise this section, as appropriate.

b. Part 1.03.A.2.:

1) For each soil type in this part, please revise this part to define "representative sample(s)" and acceptable test results, where applicable.

2) Subpart b.: Please revise this part to specify the compaction for hydraulic conductivity testing.

c. Part 1.03.B.1.: Please revise this part to specify the testing frequency and the acceptable specifications.

d. Part 2.02.A.: Please revise this part to specify the "protective soil layer standards".

e. Part 2.02.C.: Since the protective soil layer will be installed directly over the geomembrane liner, 3-inch sized stones appear unacceptable. Please verify and revise this part accordingly.

f. Part 3.02.C.: This part refers to CQA activities in the CQA Plan, however there are no soil CQA procedures in the CQA Plan. Please provide soil CQA procedures and testing specifications.

g. Part 3.04.A.2.:

1) Subparts a., c. & d.: General fill is not specified in the soil barrier layer. Please revise these subparts accordingly.

h. Part 3.04.E.2.: General fill does not appear to be specified in the final cover system. Please verify and revise this part, as appropriate.

12. **Section 33 05 20 - Polyethylene Geomembrane Liner:**

a. Part 2.02.C.: The reference to Part 2.01.B appears to be a typographic error. Please verify and revise as appropriate.

b. Part 3.03.A.5.: Please revise this part to provide overlap specifications consistent with Section 6.1.5.4 of the CQA Plan.

c. Part 3.03.C.1.: Please revise this part to provide the procedures for hot-air tacking that do not damage the geomembrane.

d. Part 3.03.F.: Please revise this part to provide acceptable seaming temperatures specifications consistent with Section 6.1.5.5 of the CQA Plan.

- e. Part 3.04.C.1.: Please revise this part to provide specific descriptions of each of the field testing procedures, consistent with approved procedure descriptions provided for other solid waste liner projects by the applicant and/or the consultant in the Southwest District. Please revise to identify and describe "other approved methods".
- f. Part 3.04.C.2.a.: Please revise this part to provide destructive testing location and frequency specifications consistent with Section 6.1.6.2 of the CQA Plan.
- g. Part 3.04.C.2.b.: Please revise this part to provide destructive testing sampling procedures specifications consistent with Section 6.1.6.3 of the CQA Plan.
- h. Part 3.04.C.3.: Please revise this part to provide failed seam procedures specifications consistent with Section 6.1.6.5 of the CQA Plan. Please revise this part to specifically define what constitutes a "failed seam."
- i. Part 3.05.D.: Please revise this part to provide specific descriptions of each of the repair procedures, consistent with approved procedure descriptions provided for other solid waste liner projects by the applicant and/or the consultant in the Southwest District.

13. **Section 33 21 70 - Landfill Gas Vents:**

- a. Part 1.04.A.: Please verify whether this person will be the CQA Consultant or his representative.
- b. Part 2.02.A.: Detail 1 on Sheet 10 of 10 of the permit application drawings appears to indicate that No. 4 stone will be used in the gas vents. Please verify this apparent inconsistency and revise this part, as applicable.
- c. Part 2.03.A.: The soils replaced above the "liner material" and boot should be the same soils specified for the protective layer and top soil layer. Please revise this section, accordingly.
- d. Part 2.04.A.: Please verify that the bentonite in this part is the same bentonite described in Specification Section 31 20 00 Part 2.03.A. and Part 3.04.B of this section and revise these parts to provide consistent descriptions of the bentonite, as applicable. If not, please explain where the two types of bentonite will be utilized on the project.
- e. Part 2.05.A.: Please verify whether this is the same gravel described in Part 2.03.A of this section and/or explain how and why they are different.
- f. Part 3.01.: The procedures in this part appear inconsistent with installation of the gas vent over the final cover system. Please revise the procedures in this part accordingly.
- g. Part 3.02.C.: Survey stakes shall not be utilized in the final cover system. Please revise this part accordingly.
- h. Part 3.02.E.1.: Please explain how the procedures in this part are consistent with installation of the gas vent into waste.

i. Part 3.02.E.2.:

- 1) All waste removed for the closed landfill shall be disposed of at the active Class I landfill. Therefore all cuttings are unsuitable for backfill. Please revise this part accordingly.
- 2) Please revise this part to indicate that the upper 2 ft of soil shall be consistent with the soil types required in the final cover system (protective soil and top soil).

j. Part 3.02.E.1.: Please explain how the procedures in this part are consistent with installation of the gas vent into waste.

k. Part 3.03.A.: Please either provide copies of the referenced ASTM methods as attachments to this specification section or revise this part to provide specific auger boring and drilling procedures.

l. Part 3.03.B.: The procedures in this part appear inconsistent with Part 3.02.D. of this section, which indicates that the contractor must use dry drilling equipment. Please verify and revise this part, as applicable.

m. Please revise this specification section to include procedure for restoration of the final cover system impacted by the gas vent installation procedures and equipment.

14. **Section 33 51 10 - Pipe and Pipe Fittings:**

a. Part 2.02.A.1: Section L on Sheet 10 of 10 of the permit application drawings appears to indicate that 2" SDR 11 HDPE pipe will be used for the leachate force main. Please verify and revise this section, as appropriate.

b. Part 3.04.C.: Pipe shaving procedures appear to be provided in Part 3.05.B. of this section. Please verify and revise this section accordingly.

c. Part 3.05.A.: Please either provide a copy of the referenced ASTM method as an attachment to this specification section or revise this part to provide specific procedure for joining PVC pipe.

d. Part 3.05.C.: Detail 1 on Sheet 10 of 10 of the permit application drawings indicates that lag screws will also be used to secure the slotted pipe to the solid pipe. Please verify and revise this section, as appropriate to provide specific procedures for using lag screws.

e. Part 3.06.B.: Please revise this part to provide specifications for the joining of HDPE pipe to PVC valves proposed on the project.

f. Part 3.07.A.: Please either provide copies of the referenced ASTM method as an attachment to this specification section or revise this part to provide specific procedure for HDPE pipe installation.

g. Part 3.07.C.: Please revise this specification section to specify the "proper trench slope" that will be verified.



**SECTION O - LANDFILL GAS MANAGEMENT SYSTEM REQUIREMENTS (Rule 62-701.530, F.A.C.)**

15. **Section O.1.b.:** Detail 1 on Sheet 10 of 10 of the permit application drawings indicates that the gas vent will have a 6" slotted PVC pipe and a 2-foot bentonite plug. Please revise this section accordingly to remove the references to optional dimensions.

16. **Section O.1.d:** Please revise this section to provide a specific description of how "the wells will be constructed in such a way that the integrity of the top liner will not be compromised".

**SECTION P - LANDFILL CLOSURE REQUIREMENTS (Rule 62-701.600, F.A.C.)**

17. **Section P.3.e.:**

a. This section does not appear to address surface and stormwater management on the 3H:1V and 4H:1V side slopes of the closure on the east, west, and south slopes with respect to cover integrity. Please provide a veneer failure analysis on these slopes, particularly considering the use of on-site soil expected to be a low hydraulic conductivity soil ( $< 1 \times 10^{-5}$  cm/sec), as the protective cover layer.

**ATTACHMENT P-1 -CONSTRUCTION QUALITY ASSURANCE PLAN (CQA) (Rules 62-701.400(3), (7) and (8), F.A.C.)**

Please revise the CQA Plan and/or other referenced application documents, as appropriate, to address the following comments and/or inconsistencies. The CQA Plan will be reviewed in its entirety after receipt of this following information

18. Please revise the CQA plan to include CQA activities and testing related to the geotextile donut, gas vent installation, and pipe installation.

19. **Section 4.3:** Details of the construction resolution meeting do not appear to be included in Specification Section 01 20 10, as indicated. Please verify and revise Specification Section 01 20 10, as appropriate.

20. **Section 5.0:** There do not appear to be Soil CQA details included in Specification Section 31 20 00, as indicated. Please verify and revise Specification Section 31 20 00 or the CQA Plan, accordingly.

21. **Section 6.1.2:** Please revise this section to provide the "specified frequencies for all materials and rolls" or reference to the specification section where they are identified.

22. **Section 6.1.2.2:** Please revise this section to provide the "required number of conformance test samples" or reference to the specification section where they are identified and to identify the specific conformance "values listed in the specifications".

23. **Section 6.1.4:**

a. Please revise this section to identify the weather condition "specifications" that should be followed.

b. Geomembrane liner anchor trenches do not appear to be specified for this project. Please verify and revise this section accordingly.

24. **Section 6.1.5.3:** The use of alternate seaming methods other than those specified in the application will require a permit modification. Please revise this section accordingly.

25. **Section 6.1.5.4:** Please revise this section to provide the specified procedures for overlap grinding or a reference to the specification section where they are identified.

26. **Section 6.1.5.6:**

a. Geomembrane liner anchor trenches do not appear to be specified for this project. Please verify and revise this section accordingly.

b. Seaming at night shall not occur without prior approval of the Department. Please revise this section accordingly.

c. Please explain what is meant by "start-up testing".

27. **Section 6.1.6.1:**

a. Please revise this section to describe the nondestructive seam testing procedures, methods, and conformance criteria consistent with those provided in the Specification Section 33.05.20.

b. All repairs shall be shown on the panel layout record drawings and noted in repair logs. Please revise this section accordingly.

c. Air pressure testing equipment and methods do not appear to be discussed in the specifications as indicated. Please verify and revise Specification Section 33.05.20, as applicable.

28. **Section 6.1.6.4:**

a. Please revise this section to describe the pass/fail criteria for destructive seam testing.

b. Please revise this section to describe the several procedures for repair that will be utilized on this project consistent with those provided in the Specification Section 33.05.20.

**SECTION Q - CLOSURE PROCEDURES (Rule 62-701.610, F.A.C.)**

29. **Section Q.4:** The Declaration to the Public referenced in this section refers to the requirements of Rule 62-701.610(5), F.A.C., which does not occur until the entire landfill facility is closed. Please revise this section accordingly.

30. **Section R.4:** Please verify the procedures for long-term care of the 7-acre disposal area after re-closure are consistent with the details in the facility's current long-term care plan and provide a revised long-term care plan, as appropriate.

**SECTION S - FINANCIAL RESPONSIBILITY REQUIREMENTS (Rule 62-701.630, F.A.C.)**

31. **Attachment S-1:** Please address the comments in Department's December 18, 2008 letter (attached) regarding the financial assurance cost estimates provided in Attachment S-1.

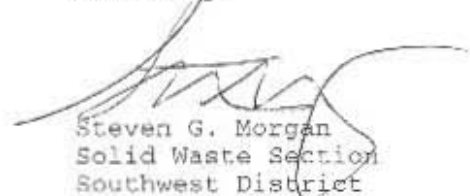


This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information and further review.

Please respond by **February 5, 2009**, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than the above schedule, you should develop an alternate timetable for the submission of the requested information for Department review and consideration. If the Department does not receive a timely, complete response to this request for information, the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

Please provide 4 copies of your response to this letter as one complete package. It is recommended that you contact the Department to set up a meeting to discuss this letter and subsequent submittals. Please contact me at (813) 632-7600 ext. 385 to schedule this meeting.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

SM/sgm

Attachments

cc: Dan Cooper, P.E., SCS Engineers, [dcooper@SCSEngineers.com](mailto:dcooper@SCSEngineers.com)  
Patty Jefferson, Citrus County, [patty.jefferson@bocc.citrus.fl.us](mailto:patty.jefferson@bocc.citrus.fl.us)  
Fred Wick, FDEP, Tallahassee (e-mail)  
Susan Polz, P.E., FDEP Tampa (e-mail)



# Florida Department of Environmental Protection

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Ms. Susan Metcalfe, P.G., Director  
P.O. Box 340  
Lecanto, FL 34460-0340

December 18, 2008

RE: Citrus County Central Class I Landfill 7-Acre Re-closure Financial Assurance Cost Estimates  
Pending Permit No.: 21375-014-SF/01, Citrus County  
WACS No.: SWD/09/39859

Dear Ms. Metcalfe:

This letter is to acknowledge receipt of the revised cost estimates dated October 23, 2008 (received November 18, 2008), prepared by SCS Engineers. The cost estimates received November 18, 2008 are not approved. The following information is needed to fully evaluate the estimates submitted:

## **General Comments**

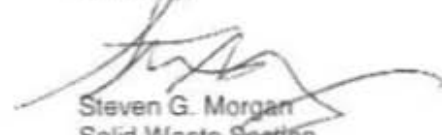
1. Please note that quantities and unit costs for closure and long-term care items may be added or changed based on comments and revisions to the above referenced permit application and therefore the proposed closure and long-term care costs will need to be revised accordingly.
2. Based on your response to the comments provided as part of the above referenced permit application, please provide a revised DEP Form 62-701.900(28) that incorporates all proposed changes to the closure and long-term care cost estimates.

## **Closing Costs**

3. Finish Grading – Since the finish grading soil layer has specified soil properties, the cost estimates cannot be based on the use of on-site soils. Please revise this estimate to include the cost of off-site soils.
4. Cover Soil & Top Soil – Since these soils have different specified soil properties, please explain why the cost are based on the same soil cost quote and revise these estimates accordingly.
5. Landfill Gas Vent - Please provide supporting information that demonstrate that the Orange County costs provided were for the same gas vent system design as proposed or provide revised cost estimates and third-party quotes, as applicable.

The Department requests that all information be provided with the response to the Department's December 18, 2008 RAI for above referenced permit application. If you have any questions, you may contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

sgm

cc: Dan Cooper, P.E., SCS Engineers, [dcooper@SCSEngineers.com](mailto:dcooper@SCSEngineers.com)  
Patty Jefferson, Citrus County, [patty.jefferson@bocc.citrus.fl.us](mailto:patty.jefferson@bocc.citrus.fl.us)  
Frank Hornbrook, FDEP, Tallahassee (e-mail)  
Susan Pelz, P.E., FDEP Tampa (e-mail)



62-110.106(5). Notices: General Requirements.

Each person who files an application for a Department permit or other notice as may publish or be required to publish a notice of application or other notice as set forth below in this section. Except as specifically provided otherwise in this paragraph, each person publishing such a notice under this section shall do so at his own expense in the legal advertisements section a newspaper of general circulation (i.e., one that meets the requirements of sections 50.011 and 50.031 of the Florida Statutes) in the county or counties in which the activity will take place or the effects of the Department's proposed action will occur, and shall provide proof of the publication to the Department within seven days of the publication.

62-110.106(6). If required, the notice shall be published by the applicant one time only within fourteen days after a complete application is filed and shall contain the name of the applicant, a brief description of the project and its location, the location of the application file, and the times when it is available for public inspection. The notice shall be prepared by the Department and shall comply with the following format:

**State of Florida  
Department of Environmental Protection  
Notice of Application**

The Department announces receipt of an application for permit from Citrus County Solid Waste Division for a permit to re-close a 7-acre portion of the existing Class I landfill, subject to Department rules, at the Citrus County Central Class I Landfill located on S.R. 44, 3 miles east of Lecanto, 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 Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.