



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

April 3, 2009

RE: Citrus County Central Class I Landfill Phase 3 Expansion
Pending Permit No.: 21375-013-SC/01, Citrus County
WACS No.: SWD/09/39859

Dear Ms. Metcalfe:

This is to acknowledge receipt of the additional information prepared by SCS Engineers, dated and received March 5, 2009, for a permit application to construct a lateral expansion 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 third 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 62-701.310, F.A.C.:** Please provide a copy of the approved alternate procedure, upon issuance.
2. **Rule 62-701.320(5)(b), F.A.C.:** Please address the comments in John Morris' April 2, 2009 memorandum (attached) regarding this application. You may call Mr. Morris at (813) 632-6100, extension 336, to discuss the items in his memorandum.

SECTION H - LANDFILL CONSTRUCTION REQUIREMENTS (Rule 62-701.400(9), F.A.C.):

3. **Section H.8.b:** Please provide a copy of the ERP permit upon issuance.

ATTACHMENT H-1 - CONSTRUCTION QUALITY ASSURANCE PLAN AND TECHNICAL SPECIFICATIONS (Rules 62-701.400(3), (7) and (8), F.A.C.)

4. **Section 5.3.1:** Based on the HELP Model analyses provided in Attachment H-12, the Department does not object to the elimination of a hydraulic conductivity specification for the liner protective layer on the constructed side slopes. However, a hydraulic conductivity specification must be provided for the cell bottom protective soil layer, consistent with the assumed hydraulic conductivity utilized for the protective soil layer in the HELP Models analyses utilized to predict leachate generation. Please revise the narrative in this section and Technical Specification Section 31 20 00 accordingly.

ATTACHMENT H.1, APPENDIX L - TECHNICAL SPECIFICATIONS (Rules 62-701.400(3), (7) and (8))

5. **Section 31 20 00 - Excavation, Backfilling, Fill and Grading:**

- a. Part 2.03.A. & Table 31 20 00-1: Please revise Part 2.03.A. & Table 31 20 00-1 to reinsert the hydraulic conductivity specification for the protective soil layer on the cell bottom liner system (see Comment #4).

ATTACHMENT H-6 - PIPE CRUSHING CALCULATIONS

6. Please revise the introductory narrative section of Attachment H-6 from the December 10, 2008 submittal to reflect changes in information and calculated values provided with the March 5, 2009 submittal.

ATTACHMENT H-9 - LINER STRESS ANALYSIS PIPE CRUSHING CALCULATIONS

7. These calculations appear to be based on a waste unit weight of 45 psf. The March 5, 2009 response indicates that Koerner suggests using the maximum stress based on application of 10 ft. of fresh waste. The assumed waste unit weight for the initial 10 feet of waste utilized in the Help Model analyses is 63.5 psf. Please verify and provide additional justification for the use of an assumed waste unit weight of 45 psf or provide revised calculations based on the assumed waste unit weight of 63.5 psf.

ATTACHMENT H-12 - ALTERNATE PROCEDURES REQUEST

8. **Rule 62-701.310(2)(e), F.A.C.:** Please revise the liner stress analysis in Attachment B based on the comments provided for Attachment H-9.

SECTION J - GEOTECHNICAL INVESTIGATION REQUIREMENTS (Rule 62-701.410(2), F.A.C.)

9. **Section J.1.b:** Since the assessment in Attachment J-4 was not able to specifically determine whether the landfill site was a karst sensitive area, the information provided in Section J.1.b and Attachment J-4 does not appear to address the requirements of Rule 62-701.410(2)(b), F.A.C. in support of this application. Please provide a current, updated, independent evaluation, in accordance with Rule 62-701.410(2)(b), F.A.C. of soft ground, lineaments, and sinkholes for sinkhole potential within and in the immediate vicinity of the Phase 2 and Phase 3 footprint that at a minimum includes the following:

- a) An evaluation that identifies areas of loose sands and other anomalies, if any, that could indicate potentially unstable areas beneath or within the immediate vicinity the proposed landfill footprint and adequately explains or addresses this potential, and/or identifies sufficient geotechnical measures necessary to modify the foundation to provide adequate structural support for the landfill.
- b) An evaluation of the data generated as part of the Universal Engineering November 15, 2001 geotechnical investigation report and any subsequent sinkhole evaluation information provided as part of the Phase 3 expansion permit.
- c) An evaluation of the sinkhole occurrences both on-site and in the vicinity of the site (within a 5 mile radius).
- d) An evaluation of the additional subsurface investigation conducted as part of this application or since the Universal Engineering 2001 report, if any.
- e) An evaluation of any additional site investigation conducted, as deemed necessary; and
- f) An evaluation of the proposed construction details for Phase 3 that address the findings in Comments (a) through (e) above.

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

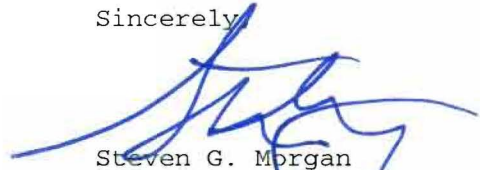
10. **Attachment S-1:** The Cell 3 financial assurance cost estimates provided in Attachment S-1 (total for closing \$5,503,120.00 and long-term care \$164,723.00/year x 30 years = \$4,941,676.00), are approved (see attached letter). In the event that changes in the facility's design, operation, closure, and/or groundwater monitoring plan are required, revised closure cost estimates, as specified in Rule 62-701.630(4)(b)1., F.A.C. will be required. A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. Please note that approval of the proof of financial assurance funding shall be required prior to issuance of an operation permit for Phase 3. **This comment is for information purposes only and does not necessarily require a response.**

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 **May 18, 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. If there are points that must be discussed and resolved or you would like to set up a meeting to discuss this letter and subsequent submittals, please contact me at (813) 632-7600 ext. 385.

Sincerely,




Steven G. Morgan
Solid Waste Section
Southwest District

SM/sgm

Attachments

cc: Carmen Bruno, carmen.bruno@bocc.citrus.fl.us
Dominique Bramlett, P.E., SCS Engineers, dbramlett@scsengineers.com
John Banks, P.E., SCS Engineers, jbanks@scsengineers.com
Patty Jefferson, Citrus County, patty.jefferson@bocc.citrus.fl.us
Frank Hornbrook, FDEP, Tallahassee (e-mail)
John Morris, P.G., FDEP Tampa (e-mail)
Susan Pelz, P.E., FDEP Tampa (e-mail)



Memorandum

Florida Department of Environmental Protection

TO: Steve Morgan
FROM: John R. Morris, P.G. *JRM*
DATE: April 2, 2009
SUBJECT: Citrus Central Class I Landfill, Citrus County
Phase 3 Expansion, Construction Permit #21375-013-SC
Hydrogeologic and Environmental Monitoring Review Comments (Responses to RAI #2)
cc: Susan Pelz, P.E.

I have reviewed portions of the permit application materials submitted to the Department in support of the referenced application for the proposed Phase 3 expansion of the referenced facility that were prepared by SCS Engineers (SCS) and Jones Edmunds and Associates, Inc. (JEA), on behalf of Citrus County Solid Waste Operations, received March 5, 2009. These materials were prepared in response to the Department's letter dated January 9, 2009 that requested additional information regarding the applications for the referenced facility, and included the following:

- Document entitled "Citrus County Class I Central Landfill, Phase 3 Expansion, Construction Permit Application, Response to RAI #2," prepared by SCS, dated March 5, 2009 [referred to as the "**Engineering Report**"], including:
 - Letter prepared by SCS dated March 5, 2009 providing responses to review comments [referred to as the "**SCS response letter**"];
 - Letter prepared by JEA dated February 27, 2009 providing responses to review comments [referred to as the "**JEA response letter**"];
 - Revised DEP Form #62-701.900(1), pages 4 and 7, undated revisions;
 - Section M, Attachment M-1 – document entitled "Citrus County Central Landfill, Water Quality and Leachate Monitoring Plan," prepared by JEA, dated November 21, 2008 [referred to as the "**WQLMP document**"].

The materials that I reviewed were related to the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application. Additional information is required to address the requirements of Rules 62-701.410 and 62-701.510, F.A.C., and to evaluate the adequacy of the proposed monitoring plan.

Please have the applicant address all of the review comments that do not include the phrase: "**No additional information is requested**". Please have the applicant submit responses to the following review comments that provide revised submittals, or replacement pages to the submittals, that use a ~~strike through~~ and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised pages (including text, figures, tables, appendices, forms, plan sheets, etc.).

The review comment numbers presented below are consistent with my memoranda dated September 19, 2008 and January 8, 2009. To facilitate the review process, those comments that were fully addressed by previous submittals have been deleted from this memorandum [including comments #1, #4, #5.a., #6, #7, #9.a., #9.b., #9.c., #12, #13.a., and #14]. The information requests have been referenced to sections of the permit application and are referenced to the sections of the supporting document where appropriate, as presented below:

SECTION A – PERMIT APPLICATION FORM

2. **A.7.:** The SCS response letter referred to revised latitude and longitude coordinates representing the approximate center of Phase 3 that were provided for this item on page 4 of the application form. **No additional information is requested.**

SECTION B – DISPOSAL FACILITY GENERAL INFORMATION

3. **B.18.:** The SCS response letter referred to the number of wells [consistent with the WQLMP document] that were provided for this item on page 7 of the application form. **No additional information is requested.**

SECTION I – HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (Rule 62-701.410(1), F.A.C.)

5. I.1.b.: Direction and rate of ground water flow and surface water flow including seasonal variations.

b. The SCS response letter referred to revisions to ¶1 in Section I.1.b. of the Engineering Report regarding the description of the localized influence on the direction of ground water flow [consistent with the JEA response letter dated November 13, 2008] in the vicinity of proposed Phase 3. **No additional information is requested.**

8. I.1.i.: Map of Potable Wells and Community Water Supply Wells. The SCS response letter referred to the revisions to Section I.1.i. of the Engineering Report that referred to the well inventory map included in Attachment I-1. The SCS response letter also referred to the activities conducted to determine that the domestic potable supply wells and community supply wells in the vicinity of proposed Phase 3 were not located within the 500-foot and 1,000-foot setbacks, respectively, of Rules 62-701.300(2)(b) and 62-701.300(2)(h), F.A.C. **No additional information is requested.**

PART M – WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS (Rule 62-701.510, F.A.C)

Section M.1 of the Engineering Report was revised to reference the WQLMP document provided in Attachment M-1. It is noted that the text of the WQLMP document [dated November 21, 2008] included in the responses received March 5, 2009 [provided as Attachment M-1 to the Engineering Report] appears to be consistent with the text of the WQLMP document [dated December 9, 2008] included in the responses received December 10, 2008, with the exception that page 6 was omitted. Please note that page 6 in the WQLMP dated December 9, 2008 included the following sections:

- M.1.f.(3)b – compliance well monitoring parameters and sampling frequency
- M.1.f.(3)c – intermediate well monitoring parameters and sampling frequency
- M.1.f.(3)d – assessment well monitoring parameters and sampling frequency [as continued on page 7]

Please submit additional revisions to Section M.1 of the Engineering Report that refer to a complete WQLMP document as Attachment M-1 to the Engineering Report, including the information previously provided on page 6. Please also ensure that Attachment 1 [site map showing monitoring locations] and Attachment 2 [table of existing/proposed monitor well construction details] are included in the complete WQLMP document.

10. M.1.c.(3): Background Wells.

a. The SCS response letter provided a duplicate response to comment #10.b, however the requested revision was made to ¶2 in Section M.1.c.3 of the Engineering Report which indicated the only laterally continuous aquifer at the facility is the unconfined Floridan aquifer. **No additional information is requested.**

b. The SCS response letter indicated that ¶1 in Section M.1.c.3 of the Engineering Report had been revised regarding the redesignation of existing background well MW-1R as a piezometer, and referred to the JEA response letter. The JEA response letter confirmed no additional background well location was being proposed. **No additional information is requested.**

11. M.1.c.(4): Location Information for Each Monitoring Well. The SCS response letter indicated that ¶1 in Section M.1.c.4 of the Engineering Report had been revised to refer to the monitor well locations shown on the site plan [Attachment 1] of the WQLMP document. **No additional information is requested.**

13. M.1.e.: Leachate Sampling Locations Proposed.

b. The SCS response letter indicated that ¶1 in Section M.1.e. of the Engineering Report had been revised to refer to the leachate sampling locations shown on the site plan [Attachment 1] of the WQLMP document, and referred to the JEA response letter. The JEA response letter indicated that Attachment 1 of the WQLMP document had been revised to include the leachate collection locations and identification numbers for Phase 1/1A, Phase 2 and Phase 3. **No additional information is requested.**

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 for further review.

I can be contacted at 813-632-7600, extension 336, to discuss these comments.

jrm



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April 1, 2009

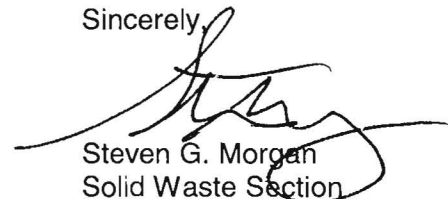
RE: Citrus County Central Class I Landfill Phase 3 Expansion
Financial Assurance Cost Estimates
Pending Permit No.: 21375-013-SC/01, Citrus County
WACS No.: SWD/09/39859

Dear Ms. Metcalfe:

This letter is to acknowledge receipt of the revised cost estimates dated and received December 10, 2008 and March 5, 2009 as Attachment S-1 of Citrus County Class I Central Landfill Phase 3 Expansion Construction Permit Application, prepared by SCS Engineers for closure and long-term care of the Citrus County Landfill (Phases 1, 1A, 2, & 3 and the old 60 acre landfill). The revised cost estimates received on December 10, 2008 and March 5, 2009 (total for closing \$5,503,120.00 and long-term care \$164,723.00/year x 30 years= \$4,941,676.00), are **APPROVED for 2009**. The approved estimates are for closing 31.2 acres (Phases 1, 1A, 2, & 3) and long-term care of 91.2 acres. The next annual update (revised or inflation-adjusted estimates) is due no later than **September 1, 2009**.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. Please note that approval of the proof of financial assurance funding shall be required prior to issuance of an operation permit for Phase 3. 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: Carmen Bruno, carmen.bruno@bocc.citrus.fl.us
Dominique Bramlett, P.E., SCS Engineers, dbramlett@scsengineers.com
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