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Ms. Katherine K. Wingard
2355 Tomoka Farms Road
Port Orange, Florida 32128

OCD-SW-10-0070

Volusia County – SW WACS # 29243
Self/Kirton C&D Landfill - Construction & Demolition Debris Disposal Facility
DEP Consent Order No. 09-2887 – Closure and 5-Year Long-Term Care of the
Self/Kirton Construction and Demolition Debris Disposal Facility
Comments on “Landfill Closure Plan and Financial Assurance Form,” dated January
13, 2010

Dear Ms. Wingard:

Environmental Services, Inc. submitted on your behalf the document titled “Landfill Closure Plan and Financial Assurance Form” for the Self/Kirton Construction and Demolition Debris Disposal Facility. This document was dated 13 January 2010 and received by the Department on 13 January 2010. The Closure Plan and cost estimate was signed and sealed by Lowry Shuler, P.E. The Department has completed its review of this document and has the following comments:

Comments about the Closure Plan:

- 1) Chapter 62-701, F.A.C. was revised effective January 6, 2010.
 - a. The new rule added a requirement for a “Declaration to the Public”. This must be added to the Closure Plan.

Rule 62-701.730(9)(f), F.A.C. “Declaration to the public. After closing operations are approved by the Department, the facility owner or operator shall file a declaration to the public in the deed records in the office of the county clerk of the county in which the facility is located. The declaration shall include a legal description of the property on which the facility is located and a site plan specifying the area actually filled with construction and demolition debris. The declaration shall also include a notice that any future owner or user of the site should consult with the Department prior to planning or initiating any activity involving the disturbance of the facility's cover, monitoring system or other control structures. A certified copy of the declaration shall be filed with the Department.”
 - b. Rule 62-701.610(3), F.A.C., which was cited in the Closure Plan, has been deleted. The requirements were moved to Rule 62-701.600(6), F.A.C.
- 2) Item B: The following is stated but without drawings or more details it is not clear whether the requirements of Rule 62-701.730(9), F.A.C. will be met:

- a. The facility “will be capped ... with suitable materials to ... ensure that the waste will be covered with at least 24-inches of soil.” What are the “suitable materials”? Is it all soil or something else?
 - b. “The landfill cap soil material will be completely seeded and mulched ...” What is “cap soil material”? Why does it have to be mulched?
- 3) Identify the work that will be performed in-house and the work which will be subcontracted out. State clearly if the equipment that will be used as part of the final closure activities is available in-house or will have to be rented/leased.
- 4) What is the timeline for completing the closure activities?
- 5) Provide a copy of the Closure Design Plan Engineering Drawings or other materials that will be used as a basis for the closure activities at this site. The materials should cover the following topics:
- a. A plan sheet showing phases of site closing
 - b. Drawings showing existing topography and proposed final grades.
 - a. Will there be any areas that exceed the 55-foot elevation after final closure? Where are they? What is the proposed final elevation? (The Consent Order allows some areas to be closed at 60-feet or less.)
 - b. The drawings should indicate which areas need the initial 18-inches of final cover and which already have a portion of the 18-inch final cover. (NOTE: This drawing becomes the basis for the closure cost estimate, especially the volume of cover and top soil that is required.)
 - c. The drawings should indicate which areas need the 6-inches of final cover that are capable of supporting vegetation. Show any areas which already meet the final cover requirement (that is, 24-inches, the final 6-inches capable of supporting vegetation)?
 - c. Final Side Slope Design. The submitted closure plan states the side slopes will not be steeper than three feet horizontal to one foot vertical rise.
 - d. Final Cover Installation plans showing the sequence of applying final cover. Which areas will be worked first? What areas and tasks will be completed last?
 - e. Specification for the following:
 - a. First 18 inches of cover material. Will it be all soil? Will it be a soil like material? Will it be a mixture of soil and mulch? If so, what is the ratio of each?
 - b. Final 6 inches which must be capable of supporting vegetation?
 - c. Method for starting the vegetation. The Closure Plan states the disposal mound will be completely seeded. What product will be used? How will it be applied?
 - f. How does the design control stormwater to ensure it will not cause erosion of the side slopes?

Comments about the Cost Estimate:

- 6) The Consent Order, OGC No. #09-2887, on Page 2, item 4. c) Indicates that the facility consists of 25 acres of which 12 acres have been used for construction and demolition debris (C&D) disposal activities. Your closure cost estimate on DEP Form 62-701.900(28) Page 1 of 11 lists 14.9025 acres. Clarify, if the 14.9025 acres is the surface area of the disposal mound or the footprint area that will be closed.

- 7) The area and volume calculations must use the surface area which because of the slope is larger than the footprint area. Provide all calculations that are the basis for the estimated amount of soil and vegetation needed to properly close the facility. For example, on DEP Form 62-701.900(28), Page 3 of 11, Item 4, Top Soil Cover, Off-site Material is listed as 30,000 CY. However, based on the closure of 14.9025 acres with 24 inches of final cover, our calculations indicate the Top Soil Cover to be approximately 48,000 CY.
- 8) Provide a basis for the calculations and justification for unit costs (cost/unit) used in this estimate.
- 9) Identify the work that will be performed in-house and that which will be subcontracted out. State clearly if the equipment that will be used as part of the final closure activities is available in-house or will have to be rented/leased. For any subcontracted work, the cost estimates must include bids submitted by the subcontractors. (The Department prefers to see minimum three bids).
- 10) Please clarify if there will be any management fees, equipment commissions, etc. that are not included in the cost estimates submitted as part of this report.
- 11) Provide a rationale for not including:
 - a. The Slope and Fill (bedding layer between waste and barrier layer) quantities and costs in Section V titled Recalculate Estimated Closing Cost, item no. 2 on Page 3 of 11 of the DEP Form 62-701.900(28). The Department recognizes there is no "barrier layer" required for this facility. This is the fill material needed to bring the waste mound to a consistent elevation on top and slope on the sides so the 24-inches of cover material does not have any depressions. If the estimate for the fill material was included in the estimate for "top soil cover" state that but also include the calculations that show how much fill material was estimated as being necessary.
 - b. The Security System costs in Section V titled "Recalculate Estimated Closing Cost," item no. 9 on Page 5 of 11 of the DEP Form 62-701.900(28). Additionally, provide the annual cost associated with the security system maintenance (item 12) on Page 10 of 11 in the long-term care section. Your submittal implies that a gate across the roadway is sufficient security. However, that is not a stated professional opinion. If you think that is adequate, describe all methods a reasonable person would use to enter the facility. Then describe how movement through those entrances would be controlled. Give an estimate for putting those controls in place in Item V.9 (page 5 of 11) and for maintaining those controls during the long-term care period in Item VI.12 (page 10 of 11).
- 12) Please provide a site specific cost estimate for item 3 on Page 16 in the Consent Order. Include these costs on Page 6 of 11, DEP Form 62-701.900(28), Item 13 titled Site Specific Costs. The specific items that need either a cost estimate or a statement that they have been completed are the following (excerpted from Item 3 of the Consent Order):

- a. Some drums and tires were seen on the disposal area. These, and any other improper waste, must be removed and disposed properly in a permitted landfill.
 - b. To the southeast of the C&D disposal area, there are piles of mulch and fly ash. These must be properly disposed. They can be used for the closure of the disposal area.
 - c. The gatehouse will be demolished and may be placed in the disposal area during closure.
 - d. The tank marked "used oil" must be emptied. Any liquid in the tank and the tank itself must be properly disposed. The tank and any liquid cannot be placed in the C&D disposal area.
 - e. Throughout the closure and long term care period the entrance roadway must be maintained. A two-wheel drive vehicle should be able to drive over the road.
 - f. No cost estimate required.
 - g. During closure any waste outside the current C&D disposal area footprint must be brought into the footprint. There is concern that the southwest corner may extend too close to the gas line, which is supposed to be at least 50 feet away. Any waste encroaching on the gas line easement must be removed.
 - h. No cost estimate required.
- 13) The Annual Cost for Long-Term Care on Page 7 of 11, item 1 Groundwater monitoring indicates 6 (six) groundwater monitoring wells will be sampled on semi-annual basis. However, the site monitoring plan implementation schedule (MPIS) included as Exhibit 2 with the Consent Order lists 7 clusters of monitoring wells at the site (i.e., MW1A and B thru MW7A and B). The MPIS also states 8 (eight) monitoring wells will be sampled semi-annually and water-level measurements will be collected from 6 (six) piezometers. Clarify this discrepancy and submit the correct number of wells that will be sampled semi-annually. Additionally, provide the basis for the cost estimate, for example, invoices that show sampling and analytical costs for a sampling event or cost per well per event.
- 14) The Annual Cost for Long-Term Care on Page 7 of 11, item 1 Groundwater monitoring indicates an annual cost of \$2,250. Please explain the basis for this cost estimate.
- 15) Provide appropriate cost for recording the elevation of the surface water monitoring site (SG-1) in item 2 Surface Water Monitoring, on Page 7 of 11, DEP Form 62-701.900(28). Or, indicate the surface water monitoring costs are included in the total water quality sampling and monitoring event costs.
- 16) The mowing and the fertilizer costs submitted in item No. 9, on Page 9 of 11, DEP Form 62-701.900(28) appear to be low. Please provide the basis and supporting documentation for these costs. Additionally, mowing events are listed as three times per year. The Department recommends mowing 4 times per year. Please provide justification for why mowing three times per year is sufficient for this facility.
- 17) A revised cost-estimate, signed and sealed by a Professional Engineer licensed in the State of Florida, must be submitted. It must address the issues raised above.

Please submit your response to these comments within 30 days of the date you receive this letter.

If you do have questions or comments, contact Sandeep Janwadkar or me by telephone at (407) 893-3328 or by e-mail at sandeep.janwadkar@dep.state.fl.us, or tom.lubozynski@dep.state.fl.us.

Sincerely,



F. Thomas Lubozynski, P.E.
Waste Program Administrator

Date: February 23, 2010

FTL/sj

cc: Lowry Shuler, P.E. – Environmental Services, Inc. – lowry@seassoc.com
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