

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**John Reese**  
**SW Section**

FACILITY FILE SUMTER COUNTY  
SUMTER CO SHREDDER FACILITY  
LANDFILL



SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH  
TAMPA FLORIDA 33610

813 985 7402  
S C m 570 8000

BOB GRAHAM  
GOVERNOR

VICTORIA J TSCHINKEL  
SECRETARY

DR RICHARD D GARRITY  
DISTRICT MANAGER

December 23 1986

Gary Breeden  
Director of Public Works  
Sumter County  
Post Office Drawer A  
Bushnell Florida 33513

DEC 23 1986

Dear Mr Breeden

EA SOLID WASTE

We have reviewed the application submitted by Springstead Engineering on your behalf on November 24 along with previously submitted items and have found the application to be incomplete. The following items are still needed in order to complete the application.

- 1 A foundation analysis is required for new landfilling areas. New trenches will still be required for non-processable waste and as a contingency for breakdown.
- 2 Facility design - The site location and legal description or orientation of property to be used are not given. Sheet 2 of the drawings seems to indicate that the shredding facility maybe placed over portions of the landfill disposal areas. The relationship between the two sites should be explained and shown on labeled drawings.

Identification labels are needed on Sheets 1 and 2 of the drawings. A building is labeled metal building does this mean it will house recovered metals or that it will be constructed of metal? The composting area is not identified on sheet 1 it is assumed to be the area on the left of the drawing. An apparent pit in lower right of Sheet 1 is not identified.

- 3 As stated in Andy Berry's letter of November 27 1985 the previously submitted plot plan is not adequate. A letter from Springstead Engineering dated March 21 1986 indicated that a new plot plan was being prepared. The new application indicates that it was 'Previously Sent'. When was it sent and by whom? A plot plan has not yet been received by this office.

- 4 Required topographic maps which would be submitted with the plot plan have not been received
- 5 The Groundwater Monitoring Plan initial analysis submitted on October 28 1986 only partially meets the requirements for implementation of the Plan The following is still required for the Groundwater Monitoring Plan
  - a DER well completion reports for the six monitor wells including

Well identification	Driller's log
Latitude/longitude	Total depth of well
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Screen length	Direction of groundwater
Elevation at top of pipe	flow in screened zone
Elevation at land surface	SWFWMD well construction
Elevation at top and bottom of collection zone	permit numbers
  - Each report must specify the referenced well
  - b The permittee should attempt to sample the dry well for full Primary and Secondary Drinking Water Standards analyses as soon as possible If the wells are dry for three consecutive months the permittee should submit a plan to redrill the wells
  - c Manganese and Total Dissolved Solids should be added to the monthly sampling parameter list Once a full sampling suite is obtained (all six wells) the permittee could request a change in sample frequency from monthly to quarterly
  - d The Total Trihalomethanes and Radionuclides which are part of the Primary and Secondary Drinking Water Standards (Ch 17-22 104(1) (e&f) F A C ) should be submitted for the first three (3) wells sampled and included in the initial analysis for three three (3) unsampled wells
- 6 Landfill Performance and Design Standards - The new cells that are mentioned are not described or illustrated in the application Limestone is not acceptable as a liner material due to the acidic nature of leachate You must submit detailed drawings reflecting liner installation for all cells composting areas and leachate collection swales or ponds A clay or synthetic liner as described in 17-7 050(4) or a combination of the two is the minimum acceptable liner system

7 Stormwater controls are not shown and no calculations are provided to show that the controls will be adequate You need to show compliance with Chapter 17-25 in order to complete this application We have been advised by the SWFWMD that a 40D-4 permit for this project will be required by their office

8 Operations Plan - the applicant should provide a detailed operation plan for the daily operation of the facility and the complete composting process i e composting times temperatures moisture content and controls turning or handling detailed descriptions of the equipment involved material flow description Of particular interest is how the materials separation occurs how are plastics glass metals stones etc separated from the organic fraction

It is stated the composted material will be moved off site by the contractor Who is the contractor? Since no specific information is provided about the composting process or resultant product it should not be moved off site At this point it is a solid waste that has been processed for volume reduction It is well recognized that municipal waste contains quantities of hazardous wastes Federal regulations are presently being developed by the U S EPA as mandated by the Congress to control the disposal of municipal solid waste Composting has not been discussed in the development of the federal regulations

9 Water quality standards - What volumes of water are expected to be handled? Who will have transport to the wastewater treatment facility? Is there an agreement with the wastewater treatment facility to accept the leachate and can it be handled without upset?

10 Closure - The statement that the landfill will not be closed in contradictory At some point it should reach capacity The meaning of 'gradual stabilization' is not clear and requires explanation Continuous closure is required by Section 17-7 050(5)(o) Financial responsibility for closure and post closure is not addressed No gas investigation plan for the closed areas was included

11 The supporting information contained with the application has also been evaluated by John Reese I am enclosing a copy of his comments on this information as they also reflect my concerns about this project

SPM Waste-to-Compost System

- 1 The simple schematic drawings of the system do not fully explain it's operation What is the operating schedule how much and what types of waste will be processed? How will hazardous waste dangerous materials infectious waste be handled? What will be done with unprocessable wastes? Dead animals? A contingency plan in the event of breakdown is required (Section 17-7 090(5) F A C ) Is this the installation that will be used at the Sumter County Landfill site? It appears to be a diagram of some equipment which is not related to the application or the site plan drawings Where is this system operating now and can supporting documentation be provided Construction details should be provided

Drawing SPM-101 shows a transport fan which one must assume blow the shredded waste up to the top of the cyclone The ballistic characteristics of small shredded metal particles and other dense solid materials such as glass do not lend themselves to aerial flight very well Blowers used in this manner are generally used in for air classification of shredded materials while conveyor belts are used to transport the relatively dense solid waste Design and operation should include provisions for handling the denser materials that may not fly If the blower is to be of such a size to make these objects fly then the lighter fractions of waste could become an air emissions problem out of the cyclone tower

The purpose or need for the pneumatic transport and tall cyclone tower is not clear Is the cyclone tower and hopper beneath it to be used for waste storage in the absence of trucks? If so how will waste jams be prevented or cleared in the hopper funnel due to bridging of the waste Hoppers of this design are not suitable for storage of solid waste

The scale given on drawing SPM 102 1 inch equals 2 feet if used on the drawing would indicate a refuse truck 3 75 feet long

- 2 Specifications for the SPM system indicate an input capacity of 25 tons per hour but it does not state how much waste will be processed for the county or the operating hours or other details of the process

What is the nature of the bacteria to be added to the waste and what are it's environmental and health effects Most composting does not require the addition of bacteria

In the section Capacity and Performance an assumption is made about the waste handling sorting and equipment used There should be no assumptions specific operating procedures and equipment must be described

Newspaper clippings are not a technical support document for an application

- 3 The application does not clearly state what process or system will be used The specifications of the SPM Waste Compost System are attached to the application form are not clearly identified as the process that will be used It is not a complete system description as required by Section 17-7 090(3) F A C
- 4 The Geophile International Incorporated Process booklet attached to the application is also not tied to the application It appears to be collection of general information on composting but contains little specific information on composting As an example page 5 item 1 a contains the statement "the stable end product of uniform characteristics will meet and/or exceed all EPA guidelines ' What are the characteristics of the product - a complete analysis for metals hazardous components pesticides organic and inorganic materials carcinogens and pathogen content and types should be provided

What are the EPA guidelines and which ones are exceeded? I have contacted the U S <sup>EPB</sup> Office of Solid Waste in Washington D C they are not aware of any guidelines for composting mixed municipal solid waste and their first reaction was that it should not be done They will however look into it and advise me during the week of December 22 1986

Section 17-7 040 F A C Prohibitions states that no solid waste shall be disposed of except by sanitary landfill incineration recycling process or other method approved by the Department and consistent with this Chapter (17-7) and applicable approved local agency programs or regulations Composting of mixed municipal solid waste is not addressed in Chapter 17-7 because it has not been an accepted method of disposing of this type of waste largely due to the unknown quality of the end product and the lack of uses for it

Experimental methods and operations may be evaluated by the department in accordance with 17-7 090(11) but the incompleteness and insufficiency of the application does not allow it to be evaluated on an experimental basis

Mr Gary Breeden  
December 23 1986  
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There is a substantial amount of information that needs to yet be submitted I understand that the present trench you are using is reaching capacity I feel you should consider constructing a new trench that meets our new requirements or consider high-rising on the closed portions

Sincerely



Nicholas A Bruno  
Environmental Specialist  
Solid Waste Section

NAB/ds

cc Kim Ford  
Ed Snipes  
John Reese Tallahassee  
Springstead Engineering