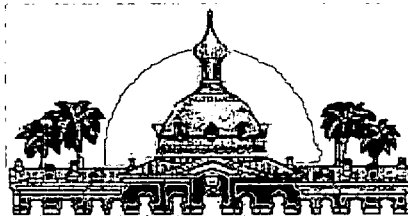


**Response to Request for  
Additional Information  
Southeast County Landfill (SCLF)  
Effluent/Leachate Storage Pond  
Pending Permit No.: #35435-005-SC,  
Hillsborough County**



**Submitted to:**

Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33719

**Prepared by:**

SCS Engineers  
3012 U.S. Highway 301 N., Suite 700  
Tampa, Florida 33619  
(813) 621-0080

**Submitted for:**

Hillsborough County  
Solid Waste Management Department  
P.O. Box 1110  
Tampa, Florida 33601  
(813) 276-5680

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

MAR 07 2001

SOUTHWEST DISTRICT  
TAMPA

File No. 09200020.21  
March 7, 2001

**SCS ENGINEERS**

March 7, 2001

File No. 09200020.21

Mr. Kim B. Ford, P.E.  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

**D.E.P.**  
**MAR 07 2001**  
**Southwest District Tampa**

Subject: Southeast County Landfill (SCLF) – Effluent/Leachate Storage Pond  
Pending Permit No.: #35435-005-SC, Hillsborough County

Dear Mr. Ford:

On behalf of the Hillsborough County Solid Waste Management Department (HCSWMD), SCS Engineers (SCS) submits the following responses to your letter dated February 2, 2001. For ease of review, the Florida Department of Environmental Protection (FDEP) comments from your letter are restated in bold, followed by our response.

**FDEP Statement 1 - 62-701.320(7)(e)2. (a)Is the proposed leachate storage pond required as part of the landfill contingency plans? An explanation of the circumstances surrounding the need for the effluent/leachate storage pond is requested. (b)Are the operation of the facility's: leachate treatment facility, the leachate spray irrigation activities within the active portions of the facility, and the continued off-site disposal of leachate adequate for the management of the leachate volumes being generated? (c) Provide contingency plans for management of additional leachate generated from rainfall into the proposed leachate pond. (d) A water balance (for 1 year) for the leachate pond is requested for leachate generation from expected rainfall. Compare the evaporation due to spraying over the pond and for worst case with no spray evaporation over the pond. (e) Figure 4-1 should be revised to distinguish between use of the pond for leachate and effluent. Separate figures are suggested.**

**Responses:**

- (a) The primary objective of the pond is to provide for additional onsite storage and capacity to evaporate effluent from the on-site Leachate Treatment and Reclamation Facility (LTRF). The new pond will provide additional flexibility in scheduling irrigation or offsite hauling. In addition, the pond was designed to allow for the temporary storage of raw leachate in the event that such additional storage is needed under special circumstances such as failure of the pumps in the Main Leachate Pump Station. Section 4.9 of the Leachate Management Plan (LMP) has been revised accordingly.
- (b) The leachate management facilities for the SCLF are adequate. However, Specific Condition No. 40 (spray irrigation limitations) restrict the HCSWMD's goal to



maximize the disposal of treated effluent on site. The proposed pond will provide the HCSWMD additional flexibility to manage the treated effluent on site, as well as raw leachate if needed.

- (c) The pond has been designed with 2 feet of free board from the normal maximum pond level. This is more than adequate for the 25 year-24 hour storm event. See response to FDEP Statement No. 7 below. If the pond is used for leachate storage, the leachate from the pond will be hauled off-site to a County public wastewater treatment plant.
- (d) Rainfall and natural evaporation varies from month to month depending on weather conditions. In general, evaporation exceeds rainfall in winter and spring, and is less than rainfall in summer and fall, although there are exceptions. SCS simulated the water balance of the proposed pond using actual rainfall and evaporation data from 1995 to 2000. Figure No. 1 in Appendix A shows a plot of the volume of rainfall into and natural evaporation from the pond during this period. Figure No. 2 in Appendix A shows the performance of the pond with the addition of the spray evaporators. Figure 2 demonstrates that the pond equipped with the spray evaporators is capable of evaporating the rainfall incident to the pond plus significant quantities of effluent and/or leachate, as may be the case. Using the last 5-year rainfall data, the pond would have had an average of 69,000 gallons of rainfall per month, but be capable of evaporating 308,000 gallons per month (net disposed, and 239,000 gallons per month). The worst case condition during the 5-year period considered was July 1995. During that month, the maximum volume of water added to the pond from rainfall would have been 243,000 gallons. During that same period, the minimum natural evaporation would have been approximately 30,000 gallons. The net increase in storage in the pond would have been 213,000 without use of the spray evaporators. With the spray evaporators, approximately 264,000 gallons could have been evaporated, which would have resulted in a net effluent and/or leachate disposal 51,000 gallons.
- (e) See response (a) above

**FDEP Statement 2 – 62-701.320(7)(e)2. And .400(6)(b)3. (a) No contingency plan related to the draining and repair of the pond and liner was provided. If leakage found in the leak detection system exceeds the theoretical leakage rate predicted, how will the pond be drained and repaired? (b) What is the actual leakage rate that will require repair to prevent flooding the secondary liner system? (c) What is the capacity of the secondary sump? (d) What specific equipment and procedures will be used for removal? (e) Where will the leachate be drained to or how it will be otherwise managed. The contingency plan should be based on a worst case scenario with both the effluent pond and the leachate pond filled to capacity.**

**Responses:**

- (a) The procedures to be followed when emptying the pond are shown in the Section 4.9.3. of the LMP. The proposed Pond "B" can be isolated from the existing effluent pond; therefore, if repairs are needed, Pond "B" can be drained and repaired without interrupting the operation of the other leachate management facilities.
- (b) The calculation for the estimated leakage rate is included in Attachment G-3 of the permit application. The calculations show a worst case leakage rate of 4,185 gallons per day is possible. If the actual leakage rate exceeds 6,000 gallons per day, the HCSWMD will conduct an evaluation of the liner system and will submit a report including findings and recommended remedial action to the FDEP and the Environmental Protection Commission (EPC).
- (c) The capacity of the secondary sump is 371 gallons.
- (d) The HCSWMD will monitor the sump daily, if leakage is detected, the HCSWMD will install a well point pump into the 6" diameter sump. The effluent pumped from the leak detection sump will be recirculated back to Pond "B" from where it can be hauled off-site, spray irrigated, or evaporated. Under normal operating conditions, effluent/leachate from the pond will not be returned to the LTRF.
- (e) In the event that it is necessary to store leachate in the pond, the leachate stored will be evaporated or hauled off-site to a County public wastewater treatment plant.

**FDEP Statement 3 - 62-701.400(5)(f). Provisions for cleaning of the leachate pond in preparation for effluent storage changeover are requested.**

**Response:** Refer to the response of FDEP Statement 2(a) for repairs and cleaning procedures.

**FDEP Statement 4 - 62-701.400(6)(b)1. Assurance that the cited seasonal high groundwater elevation(s) have not been skewed based on the regional drought conditions experienced over the past 2 years, in support that groundwater will remain below the bottom liner subbase.**

**Response:** The seasonal high groundwater table (SHGWT) elevation has not been skewed by the past 2 years drought conditions. The SHGWT was based on site specific data between August 1997 and July 2000, the maximum recorded SHGWT elevation for the upper aquifer near the surface impoundments was 123.61 NGVD, in Piezometer P-3D. The bottom of Pond "B" is designed to be above the SHGWT at elevation 130 NGVD, and the bottom of the sump is at elevation 128 NGVD.

Mr. Kim B. Ford

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**FDEP Statement 5 - 62-701.400(6)(b)1. Assurance that contaminants will be contained within the lined leachate pond during operation of the spray evaporation system is required. Calculations are requested to support containment based on spray droplet size and wind velocity. As leachate is sprayed into the air and pure water evaporated, will dissolved solids become particulate matter and drift outside the liner? Conclusions regarding containment of leachate spray dissolved solids should be in part based on results from an other similar type project or field demonstration.**

**Response:** There is no discrete separation of liquid and solid particles during spray evaporation. Natural evaporation of water is based upon the kinetic energy in the water available at its temperature and upon the surface area of the water exposed to the air. At ambient temperatures, the water molecules entering the air are dependent upon the kinetic energy of the water at the surface of the water and not internally within the water (as occurs when bubbles of vapor form during boiling). Because evaporation of water at ambient temperatures is a surface phenomenon, the rate of evaporation is enhanced by the spray atomization of the water into small water droplets, thus increasing the surface interface between the water and the air.

The evaporation of water into the air occurs only at the surface of the water droplet, and only approximately 5% of the water droplet is evaporated before it returns to the surface of the pond (see Appendix B). The dissolved solids remain within the water droplet and are not lost to evaporation. There is no discrete separation of solids from the liquid. Only at extremely high superheated steam temperatures is there sufficient kinetic energy imparted to water to have dissolved solids leave the liquid as carryover. Appendix C includes other similar type projects (i.e. spray/evaporation ponds) that have been approved by the FDEP.

**FDEP Statement 6 – 62-701.400(6)(b)2. The pond has not been designed in segments. The reasoning behind the non-segmented design is requested. Pond design revisions may be required.**

**Response:** The relatively small size of the proposed pond did not dictate the need for segments. If repairs are required, the pond will be drained and repairs can be completed without impacting the other leachate management facilities.

**FDEP Statement 7 – 62-701.400(6)(b)5. Design calculations to demonstrate two feet of freeboard will be maintained is requested.**

**Response:** The calculations are included in Attachment K-1 of the permit application. The pond stormwater calculations show that a minimum of two feet of freeboard will be maintained in the event of a 25-year, 24-hour storm.

**FDEP Statement 8 - 62-701.400(6)(b)6. Procedures for controlling vectors and odors for the proposed leachate pond is requested.**

**Response:** The HCSWMD has operated the existing treated effluent pond since 1994 and no odor or vector problems have been detected. Extending the existing fence around the perimeter of the proposed pond will control vectors. As previously stated, the primary use for the pond is effluent storage. However, if the need for leachate storage arises, it will be a temporary condition after which, the pond will be cleaned and changed over to effluent storage.

**FDEP Statement 9 – 62-701.320(7)(f) and .400(6).** Full size plan sheets and clarification regarding the following items are requested:

- a. **Attachment D-1, sheet 3 of 7 illustrates and Section G, Construction Requirements, General Design Requirements explains that two (2) 4'x4'x1' concrete pads will be installed within the limits of the storage pond and will be used in the future as heater pads. Please provide an explanation of the use of heaters associated with the pond and protection of the liners.**

**Response:** Heaters will not be used, Attachment D-1, sheet 3 of 7 has been revised to rename the two (2) 4'x4'x1' concrete pads. Section G, Construction Requirements, Section 13020 – Geotextile Fabric and Section 03300 – Cast-in-Place Concrete, with regard to concrete pads, refer to concrete in the sump area. The revised sheet 3 of 7 and full size plans are presented in Appendix D.

- b. **Attachment D-1, sheet 5 of 7, section 'B' detail, does not illustrate the 4" spray evaporation header pipe that is to be installed within the pond berm.**

**Response:** Attachment D-1, sheet 5 of 7, section 'B' detail was revised to show the spray evaporation header pipe to be installed in the pond berm. The revised Section 'B' is presented on Drawing No. 4 in Appendix D.

- c. **Attachment D-1, sheet 5 of 7, provides pipe penetration details relative to the 10" pond interconnection pipe. However, the overall illustration and details are unclear. Based on the illustration(s) provided in the Typical Pipe Penetration Through Liner Detail 2, and the associated Polylock Detail, does the required double liner system extend past the pipe penetration? It appears that the upslope from the pipe boot weld, a single layer of 60-mil geomembrane is proposed, with the 60 mil geonet and 60 mil and upper 60-mil geomembrane being eliminated. Assurance that the double liner system is provided for the entire pond and the liners are adequately protected from punctures is required. The use of HDPE rub sheets is requested.**

**Response:** The required double liner system extends past the pipe penetration and into the anchor trench. The Typical Pipe Penetration Through Liner Detail 2 has been revised and it is presented on Drawing No. 4 in Appendix D.

**FDEP Statement 7 – Supporting information in response to Mr. John Morris's February 1, 2001 memorandum (attached). Please call Mr. Morris at extension 336 to discuss this item.**

**CONSTRUCTION PERMIT APPLICATION EFFLUENT/LEACHATE STORAGE POND, SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

**Section K – Landfill Operations Requirements**

**1. It is indicated that the pond (effluent/leachate storage Pond B) was added to the existing Operations Plan. Please indicate the revision date of the Operations Plan that is referenced and when the revised plan was provided to the Department.**

**Response:** The Leachate Management Plan dated December 8, 2000 was submitted to the Department as an attachment to the construction permit application.

**LEACHATE MANAGEMENT PLAN, SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

**2. It would be helpful if the text, tables, figures, and appendices of the Leachate Management Plan included the date of preparation.**

**Response:** The entire Leachate Management Plan is attached and it was revised to include revision date March 2001.

**Section 4.3 – Temporary Wellpoint Dewatering System in Phase IV, Capacity 1 to 12,000 GPD**

**3. Please describe how it will be demonstrated that the Leachate Management Plan goals can be maintained in Phase IV without the temporary dewatering system. Please indicate if this demonstration will be provided as part of the evaluation of the clay bottom liner required by Specific Condition No. 42 of permit No. SO29-256427. Please indicate if this demonstration will address the approximate location of revised top of clay elevation based on field investigations on May 18, 1998 and October 5, 2000 as shown on Figure 1-1. Please provide the anticipated schedule for submittal of this demonstration to the Department.**

**Response:** These issues are not related to the construction of the proposed pond and will be addressed in the forthcoming Operation Permit Renewal Application for the Southeast County Landfill.

**Section 4.9.1 – Procedures for Effluent Storage and Evaporation in Pond B**

**4. Please modify this section to indicate that to avoid overfilling Pond B, Valve P-3 shall remain open only during operational hours.**

**Response:** The intent of the design and operation, under normal operating condition, is for Valve P-3 to be normally open to allow gravity flow of effluent from the existing pond into the proposed pond. The HCSWMD has operated the existing effluent pond since 1994 and overflow of the pond has not occurred. The HCSWMD measures the level in the pond daily and action is taken per the daily evaluation report included in Attachment D of the LMP. The existing monitoring procedures have been proven to be effective in preventing overfilling the existing pond. Therefore, Valve P-3 will remain normally open and the daily evaluation form has the proper action to be taken to ensure that the ponds are operated such that overflow will not occur. The daily evaluation report requires that Valve P-3 be closed if the level in the proposed pond rises above 7 feet (Elevation 137 NGVD).

**Section 4.9.2 – Procedures for Leachate Storage and Evaporation in Pond B**

**5. Please modify this section by deleting the last sentence, as it is indicated in Step No. 3 of this section that Valve P-3 is closed when Pond B is used for leachate storage.**

**Response:** See response to comment 4.9.1 above.

**Section 4.9.3 – Procedures to Resume Effluent Storage and Evaporation in Pond B**

**6. Please indicate what activities will be performed at the end of Step No. 5 of this section to remove leachate from the Pond B liner prior to the release of effluent into Pond B.**

**Response:** The pond will be cleaned and the rinse water will be hauled off-site to a County's public wastewater treatment plant. Section 4.9.3 was revised accordingly.

**7. Please modify this section to indicate that to avoid overfilling Pond B, Valve P-3 shall remain open only during operational hours.**

**Response:** See response to comment 4.9.1 above.

**Section 6.1 – Phase IV Monitoring**

**8. Review of the leachate water balance report form prepared for December 2000 indicated that the temporary dewatering system was operated at an average**



Mr. Kim B. Ford  
March 7, 2001  
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removal rate of 6,453 gallons per day. Please indicate if the demonstration that operating PPS-B as proposed (leachate level in the vault not exceeding 24 inches from the bottom) will maintain leachate heads over the liner of 12 inches or less during routine landfill operation will include the measurement of leachate depths in the Phase IV piezometer while the temporary dewatering system is not operating.

**Response:** This issue is not related to the construction of the proposed pond and will be addressed in the forthcoming Operation Permit Renewal Application for the Southeast County Landfill. The demonstration period will include measurements of the piezometers and Permanent Pump Station B (PPS-B). After the demonstration is completed, the HCSWMD will remove the dewatering system and the Phase IV piezometer. At that time, Permanent Pump Station B will become the compliance leachate level monitoring point and it will continue to be monitored per Section 6.2 of the LMP.

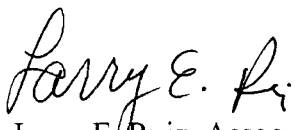
**FDEP Statement 8 – Construction schedule with anticipated begin date.**

**Response:** The construction schedule is included in Appendix E.

The attached revised LMP and drawings are included as replacement for those submitted with the permit application.

Please do not hesitate to call if you have any questions.

Very truly yours,



Larry E. Ruiz, Assoc. AIA  
Project Manager  
SCS ENGINEERS

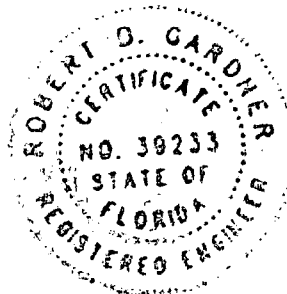


Robert B. Gardner, P.E., D.E.E.  
Vice President  
SCS ENGINEERS

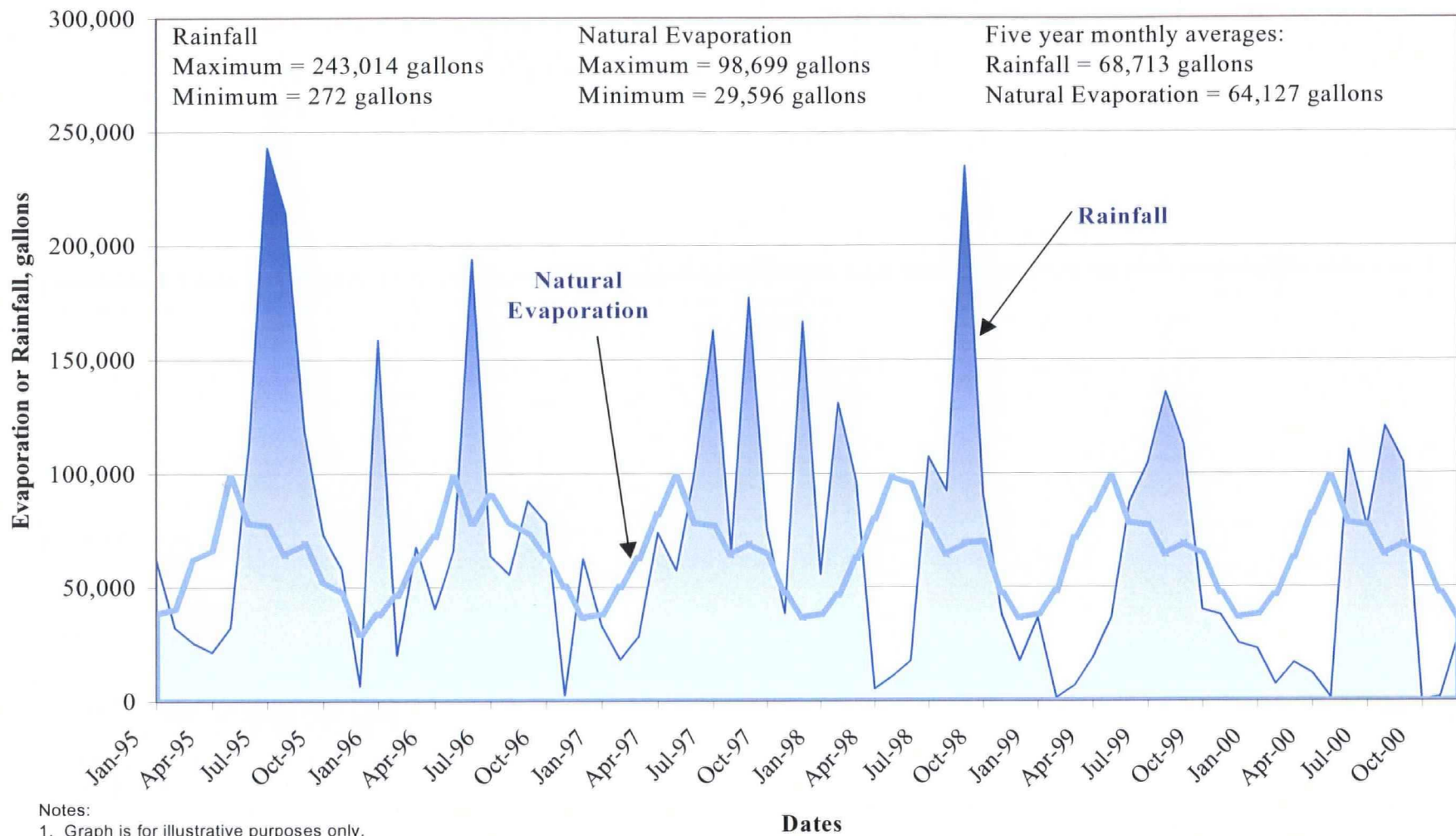
LER/RBG:scv

attachments

cc: Patricia Berry, HCSWMD  
Bob Butera, FDEP-Tampa  
Paul Shipfer, EPC



**APPENDIX A**  
**EVAPORATION RATE**



**Notes:**

1. Graph is for illustrative purposes only.
2. Pond size is approximately 0.5 acre or 266,000 gallons.
3. Rainfall data collected 1995-2000 at SCLF.
4. Natural evaporation data from SWFWMD Bradenton station 1995-2000.

SCS ENGINEERS

Figure 1. Rainfall and Natural Evaporation at the Effluent Pond

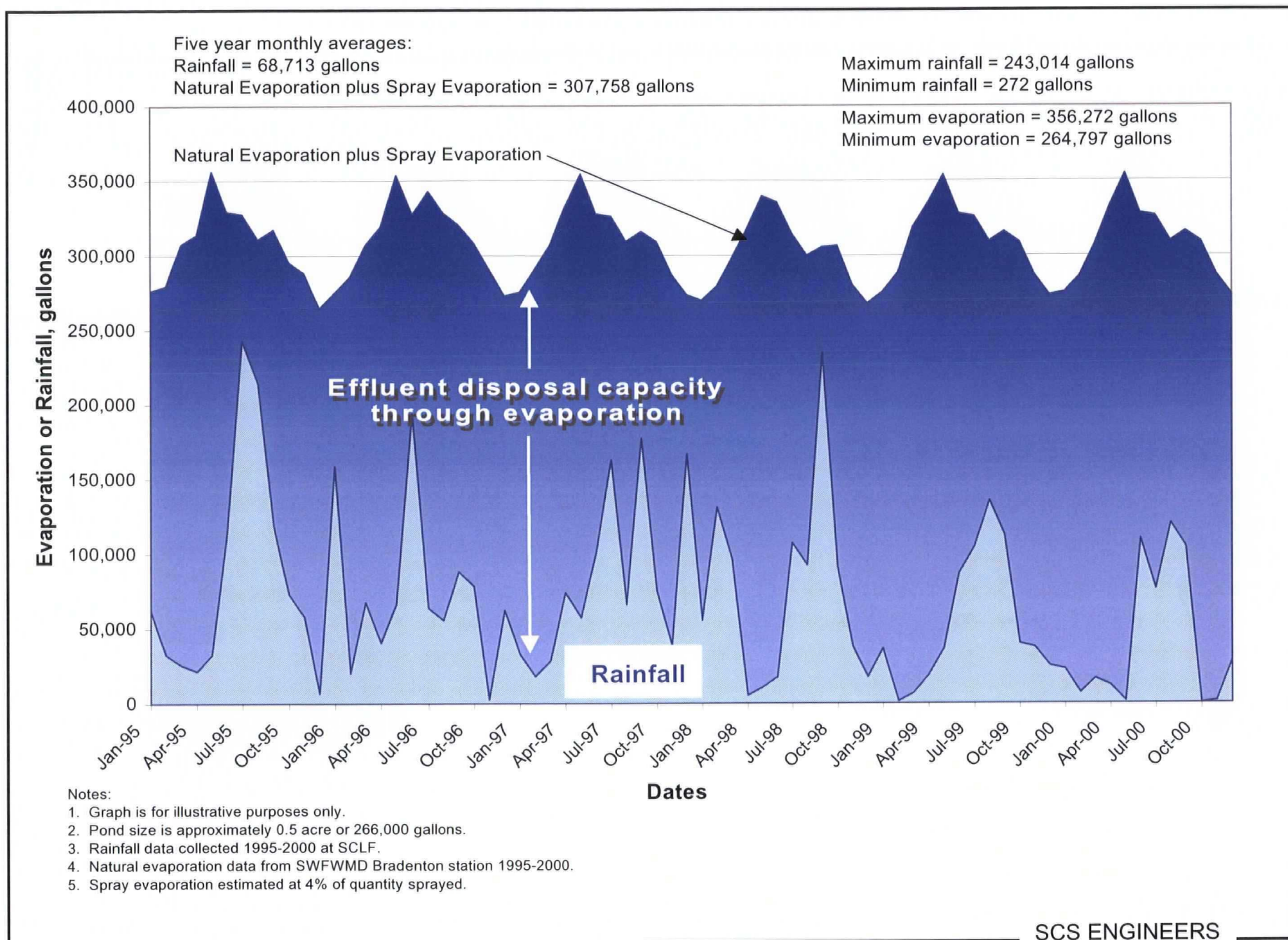


Figure 2. Rainfall and Total Evaporation at the Effluent Pond

**APPENDIX B**  
**SPRAY EVAPORATION**

# BETE



**Technical Services Department**

**Attn: Eric Rantanen**  
**1-800-830-0860**  
**email eran@bete.com**

**To: Sheila Carpenter-van Dijk**  
**Chuck Knotts**

**Company: SCS Engineers**

**Date: March 7, 2001**

**Fax#: 813-623-6757**

**Tel#: 813-621-0080**

**Your Ref: Evaporation Rates**

**Our Ref: Application# 001028**

**Page 1 of 1**

Colleagues,

Regarding estimated evaporation rates in spray ponds, it is our experience that approximately 5% of the sprayed volume evaporates from a pond using TF32XPN nozzles at 30-60 psi. At these pressures, the TF32XPN produces a spray with a mean diameter from 420-520 microns. This is comparable to the TF24N (about 600 micron) or TF24NN (about 540 micron) at 20 psi, so the evaporation rates should be similar.

Feel free to contact us if you have any questions.

Sincerely,

Eric Rantanen  
Applications Engineer

**APPENDIX C**  
**PERMITTED INDUSTRIAL PONDS**

NAME	LOC CITY	LOC STATE	PHONE	OFFICE	FACILITY ID	FACILITY TYPE	STATUS	TREATMENT PROCESS SUMMARY	DESIGN CAPACITY	COMPANY NAME
ANGELO'S CRUSHED CONCRETE, INC.	BUSHNELL	FL	8107561070	SWD	FLA016516	IW	A	Percolation/Evaporation		ANGELOS AGGREGATE MATERIALS LTD
AOC, L.L.C.	LAKELAND	FL		SWD	FL0029653	IW	A	LINED EVAPORATION POND, SETTLING POND, RETENTION/EVAP TANK		ALPHA/OWENS-CORNING
ATLANTIC SUGAR ASSOCIATION, INC.	BELLE GLADE	FL	5619966541	SD	FLA015037	IW	A	EVAPORATION/PERCOLATION(CACHASA POND) AND SETTLING/EVAPORATION/PERCOLATION(SCRUBBER POND) ALSO A RECIRCULATING CANAL	1.4	ATLANTIC SUGAR ASSOCIATION, INC.
ATLANTIC SUGAR RO-RO PLANT	BELLE GLADE	FL	4079921500	SD	FLA016728	IW	A	THE COMBINED EFFLUENT FROM THE REVERSE OSMOSIS PLANT IS DISCHARGED TO A 2.01 ACRE EVAPORATION/PERCOLATION POND LOCATED ONSITE. THERE WILL BE NO DISCHARGE TO THE SURFACE WATERS OF THE STATE.	0.033	ATLANTIC SUGAR ASSOCIATION, INC.
CF INDUSTRIES, INC. - HARDEE COMPLEX II SOUTH PASTURE MINE	WAUCHULA	FL	9413754321	SWPM	FL0040177	IW	A	SETTLING/EVAPORATION		CF INDUSTRIES
CHEVRON PRODUCTS COMPANY TERMINAL	PANAMA CITY	FL	8507857426	NWD	FL0175480	IW	A	evaporation		CHEVRON PRODUCTS COMPANY
CHEVRON USA -BULK TERMINAL-COMMERCE ST	TAMPA	FL	8138371945	SWD	FL0035921	IW	A	OIL/WATER SEPARATOR, EVAPORATION		CHEVRON USA, INC.
CRYSTAL RIVER QUARRIES, INC.- LECANTO MINE	LECANTO	FL	3527952409	SWD	FLA011948	IW	A	PERCOLATION/EVAPORATION		CRYSTAL RIVER QUARRIES, INC.
CSX INTERMODAL	ORLANDO	FL	9043664091	CD	FL0109371	IW	A	OIL WATER SEPARATION & DISCHARGE TO A PERC POND	0.045	CSX INTERMODAL
CUSTOM CHEMICALS CORPORATION (FORMERLY WESTVACO)	MULBERRY	FL		SWD	FLA132021	IW	A	OIL/WATER SEPARATION, EVAPORATION, REUSE with NO discharge to either surface or ground waters of the State		COURTLAND SYMMES
E.I. DUPONT DE NEMOURS - MAXVILLE MINE	MAXVILLE	FL		NED	FL0040274	IW	A	acidification for flocculation, settling, neutralization, and polymer addition. Short term ponds provide settling and percolation/evaporation of WW as well as recycling. Solids are settled out in 3 long term ponds followed by neutralization with hydrated	4	E.I. DUPONT DE NEMOURS & COMPANY
EVERGLADES SUGAR REFINERY	CLEWISTON	FL	9419838171	SD	FLA014297	IW	A	EVAPORATION/PERCOLATION PONDS FOR THE CONTAINMENT OF SUGAR WASTE	0.5	SAVANNAH FOODS & INDUSTRIES, INC.
FINFROCK INDUSTRIES PRECAST CONCRETE PRODUCTS	APOPKA	FL	4072934000	CD	FLA010896	IW	A	SETTLING OF SOLIDS EVAPORATION & PERCOLATION OF EFFLUENT	0.0005	FINFROCK INDUSTRIES
FL NEUROLOGICAL REHAB INC. (FINR)	WAUCHULA	FL		SWD	FLA012014	IW	A	EVAPORATION POND		
FLORIDA GAS TRANSMISSION - C.S. 15	PERRY	FL	9045846183	NED	FLA011823	IW	A	TRT of lube-oil WW & Cooling water blowdown. Basket strainers, 2 raw water storage tanks, oil/water separator, cartridge filter, two carbon-clay filters and oil storage tank w/ discharge to percolation/evaporation pond.	0.0101	FLORIDA GAS TRANSMISSION COMPANY
FLORIDA PACKING AND PROVISION, INC.	EAST PALATKA	FL	9043281404	NED	FLA011719	IW	A	EVAP-PERCOLATION POND	0.018	FLORIDA PACKING AND PROVISION
FLORIDA ROCK IND./ASTATULA MINE	ASTATULA	FL		CD	FLA010568	IW	A	SAND MINING PROCESS WATER WITH DISPOSAL TO PERC/EVAPORATION PONDS	6.18	FLORIDA ROCK INDUSTRIES, INC.
FLORIDA ROCK INDUSTRIES, INC. (BROOKSVILLE & RADAR MINES)	BROOKSVILLE	FL		SWD	FLA012087	IW	A	PERCOLATION/EVAPORATION		FLORIDA ROCK INDUSTRIES
FLORIDA ROCK INDUSTRIES, INC.- BROOKSVILLE QUARRY	BROOKSVILLE	FL	9043551781	SWD	FLA011947	IW	A	PERCOLATION/EVAPORATION		FLORIDA ROCK INDUSTRIES, INC.
FLORIDA ROCK INDUSTRIES-GULF HAMMOCK	GULF HAMMOCK	FL	9044863163	NED	FL0044300	IW	A	Process WW and on-site storm water discharges to settling ponds and then intermittently to a tributary of Wekiva River. Settling ponds provide evaporation and percolation of the WW and recycling for plant use.		FLORIDA ROCK INDUSTRIES INC
FLORIDA'S NATURAL GROWERS (FORMERLY CITRUS WORLD, INC.)	LAKE WALES	FL	9416761411	SWD	FL0131474	IW	A	ACTIVATED SLUDGE followed by perc/evap ponds and land application		CITRUS WORLD, INC.
IFAS-PESTICIDE DEGRADATION UNIT	GAINESVILLE	FL	9043926488	NED	FLA011324	IW	A	EVAPORATION TANK		UNIVERSITY OF FLORIDA, IFAS
IMC PHOSPHATES CO. - P21 PHOSPHOGYPSUM STORAGE	MULBERRY	FL	8634282500	SWPM	FLA013247	IW	A	PERCOLATION, EVAPORATION/INACTIVE PHOSPHOGYPSUM STACK SYSTEM		
IMG CITRUS (AKA BLUE GOOSE DBA/DOLE CITRUS PACKER)(IW)	VERO BEACH	FL	5615625084	CD	FLA010448	IW	A	SETTLING AND EVAP/PERC POND	0.017	BLUE GOOSE GROWERS, INC.
IRCUD/LANDFILL NPDES (IW)	VERO BEACH	FL		CD	FL0037770	IW	A	PIT DEWATERING TO PERC/EVAP POND.		
JEA KENNEDY GENERATING STATION	JACKSONVILLE	FL		NED	FL0001023	IW	A	2 EVAPORATION PERC POND W/ .3 MGD FLOW 222 MGD COOLING WATER W/ MIXING ZONE	222	
JEA NORTHSIDE UNITS 1 2 3	JACKSONVILLE	FL		NED	FL0001031	IW	A	827 MGD COOLING WATER TO ST. JOHNS 3.0 MGD CWTS TO EVAP/PERC PONDS	827	
JEA SOUTHSIDE GEN STATION	JACKSONVILLE	FL		NED	FL0001015	IW	A	358 MGD COOLING WTR TO ST JOHNS RI 0.105 MGD PERC/EVAP PONDS	358.1	
L C DAIRY, INC. (FORMER DRESSSEL DAIRY)	2903 COUNTY ROAD 64 EAST	FL		SED	FLA013660	IW	A	LOW VOLME CHEM WASTE		L C DAIRY, INC.
MACDILL AFB-PESTICIDE DEGRADATION SYSTEM	MACDILL AFB	FL		SWD	FLA012382	IW	A	Percolation and Spraying		MACDILL AFB
								EVAPORATION/DEGRADATION SYSTEM		



NAME	LOC CITY	LOC STATE	PHONE	OFFICE	FACILITY ID	FACILITY TYPE	STATUS	TREATMENT PROCESS SUMMARY	DESIGN CAPACITY	COMPANY NAME
MOLTECH POWER SYSTEMS, INC	HAGUE	FL	3524626245	NED	FLA011311	IW	A	FILTRATION-NEUTRALIZATION TO SINKHOLE-EM ERG SETTLE PONDS EXIST STORMWATER DISCH. Closed loop settling,filtration,demineralization, evaporation & reuse of WW in plant processes with no discharge except for non-contact cooling	1.6	MOLTECH POWER SYSTMES, INC.
OSCEOLA FARMS COMPANY	PAHOKEE	FL	5619247156	SD	FLA015039	IW	A	CONDENSER COOLING WATER AND WASTEWATER FROM AIR POLLUTION CONTROL SCRUBBERS, BOILER BLOWDOWN, PLANT WASHDOWN AND WATER TREATMENT PLANT WASTEWATERS ARE DISCHARGED VIA TWO POINTS TO A RECIRCULATING PERIMETER CANAL SYSTEM AND, EVENTUALLY TO A EVAPORATION/PER	68.1	OSCEOLA FARMS CO.
OSLO CITRUS GROWERS ASSOCIATION	OSLO	FL		CD	FLA010457	IW	A	PERC/EVAP PONDS TO RETAIN INDUSTRIAL WASTEWATER FROM PACKING HOUSE	0.021	OSLO CITRUS PACKERS
SPARTON ELECTRONICS	BROOKSVILLE	FL		SWD	FLA012085	IW	A	MEMTEK SYSTEM, REVERSE OSMOSIS AND SPRAY EVAPORATION POND		SPARTON ELECTRONICS
TALISMAN SUGAR CORP.	BELLE GLADE	FL	5619965527	SD	FLA015041	IW	A	DISPOSAL SYSTEM CONSISTING OF EVAPORATION/PERCOLATION POND SYSTEM, CANAL SYSTEM, A SETTLING BASIN AND ASSOCIATED WASTEWATER CONVEYANCE SYSTEM.	48.5	TALISMAN SUGAR CORPORATION
US SUGAR CORP - CLEWISTON MILL	CLEWISTON	FL	9419838121	SD	FLA014302	IW	A	EVAPORATION/PERCOLATION PONDS FOR THE CONTAINMENT OF SUGAR WASTE	37.6	U.S. SUGAR CORPORATION
YODER BROTHERS INC - ALVA FARM RO	ALVA	FL	9417282535	SD	FLA016527	IW	A	3.2 ACRE PERCOLATION/EVAPORATION POND	0.492	YODER BROTHERS - ALVA FARM
AERODYNE INVESTMENT CASTINGS	TAMPA	FL		SWD	FLA012353	IW	N	PERCOLATION/EVAPORATION POND FOR CW		
D. SHAMBAUGH	LITHIA	FL		SWD	FLA012422	IW	N	EVAPORATION		
FLORIDA POWER WILDWOOD MAINT.FACILI	WILDWOOD	FL		SWD	FLA013543	IW	N	OIL WATER/SEPARATOR,PERCOLATION AND EVAPORATION POND.		

Source: Florida Department of Environmental Protection files.

**APPENDIX D**  
**CONSTRUCTION DRAWINGS**

**APPENDIX E**  
**CONSTRUCTION SCHEDULE**

### Southeast County Landfill Effluent/Leachate Pond Construction Schedule

Row #	Task Name	Duration	Start	End	2001							
					May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Permit Issued	0.00 d	Jun/01/01	Jun/01/01		△						
2	Contract Bidding and Award	90.00 d	Jun/01/01	Oct/09/01								
3	Mobilization	5.00 d	Oct/10/01	Oct/16/01								
4	Regrading for Base	3.00 d	Oct/10/01	Oct/12/01								
5	Construct Berms	8.00 d	Oct/15/01	Oct/24/01								
6	Install 6" Subbase	3.00 d	Oct/23/01	Oct/25/01								
7	Excavate Anchor Trench	2.00 d	Oct/25/01	Oct/26/01								
8	Install Pond Liner	7.00 d	Oct/29/01	Nov/06/01								
9	Place Rock in Detection Sump	1.00 d	Nov/01/01	Nov/01/01								
10	Install Evaporation System	9.00 d	Nov/07/01	Nov/19/01								
11	Backfill Anchor Trench	2.00 d	Nov/20/01	Nov/21/01								
12	Concrete in Place	5.00 d	Nov/23/01	Nov/29/01								
13	Liner Penetrations	3.00 d	Nov/07/01	Nov/09/01								
14	Install Pump and Panel	3.00 d	Nov/30/01	Dec/04/01								
15	Tie-ins to Existing Piping	6.00 d	Dec/05/01	Dec/12/01								
16	Install Fence	3.00 d	Dec/13/01	Dec/17/01								
17	Place Sod	4.00 d	Dec/18/01	Dec/21/01								
18	Demobilize	3.00 d	Dec/24/01	Dec/27/01								

Milestone    △    Summary      
Fixed Delay    -----