INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 14-Aug-2000 03:38pm
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District Office
Tel No: 813/744-6100

To: Kim Ford TPA (FORD_K)
CC: William Kutash TPA (KUTASH_W)
CC: Susan Pelz TPA (PELZ_S)
CC: John R. Morris TPA (MORRIS_JR)

Subject: West Pasco - Lechate Management Status

I contacted Ron Walker @ 2:00 P.M. for an update. He informed me that the level indicated on the gauge stick is 6 inches but that there is perched leachate from a todays rain event impounded within the two acre disposal area that has not reached the sump. The level in the tank is 32 feet or increased about 9 inches from last Thursday. Leachate gallons hauled each day (Tuesday through Friday) was 54,000 gallons or a total of 216,000 gallons. The leachate treatment facility has been operating at 36,000 gal./day. My concern is that there is only one foot of capacity left in the tank or about 58,000 gallons so it would appear any future storm events may cause the leachate in the cell to increase if rainfall exceeds the treatment capacity of the plant or the capacity available in the leachate tank. Kim, please follow up periodically for status updates.

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 08-Aug-2000 03:46pm
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District Office
Tel No: 813/744-6100

To: See Below
Subject: Pasco - Leachate Build-up

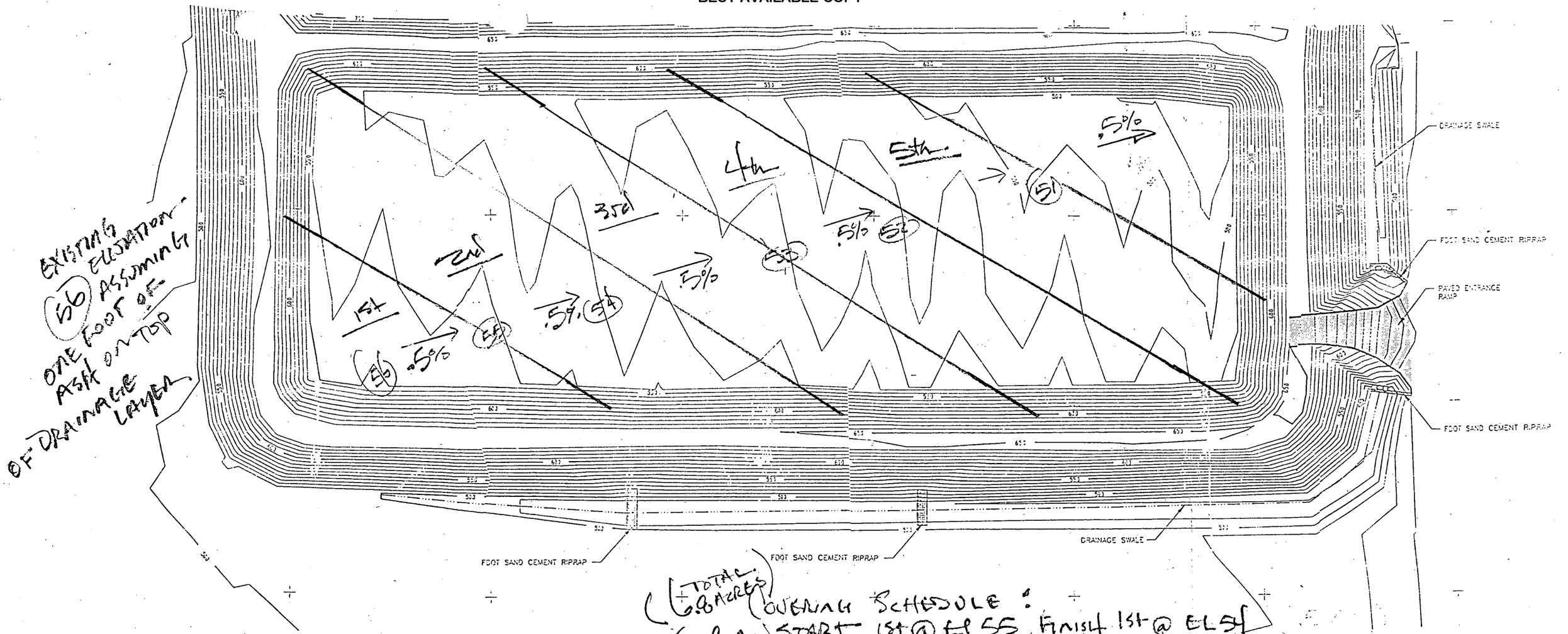
Ron Walker called this morning to inform me that Pasco County commenced hauling leachate to the City of Tampa WWTP today. He reported that they were hauling 9 loads per day for a total of 54,000 gal/day. He reported the leachate build-up in A-2 reached 24 inches over the liner. I requested the CROM tank levels recently. He stated that on June 30, 2000 and July 31, 2000 there were 1,115,000 gallons and 1,761,900 gallons respectively. The treatment facility bagging operation was down over the weekend which caused the plant not to be operational. It currently is up and running.

Kim, let's discuss as to what their operational plan states relating to commencement of hauling leachate....it appears the Crom Tank should have much more available capacity this time of year. Within the currently permitted active area how much leachate/rainfall could they accommodate in the tank?

Distribution:

To:	Kim Ford TPA	(FORD_K)
CC:	Susan Pelz TPA	(PELZ_S)
CC:	Steve Morgan TPA	(MORGAN_S)
CC:	William Kutash TPA	(KUTASH_W)
CC:	John R. Morris TPA	(MORRIS_JR)
CC:	Sarah Smithee TPA	(SMITHEE_S)

BEST AVAILABLE COPY



RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY FLORIDA

(TOTAL 6.8 ACRES) OVERNIGHT SCHEDULE:

(.8 AC)	START 1st @ EL 55,	FINISH 1st @ EL 54
(1.6 AC)	" 2nd @ EL 54,	" 2nd @ EL 53
(1.5 AC)	" 3rd @ EL 53,	" 3rd @ EL 52
(1.6 AC)	" 4th @ EL 52,	" 4th @ EL 51
(1.3 AC)	" 5th @ EL 51,	" 5th @ EL 50

ASSUMING NO ASH IN A-2 LEACHATE STORED IN A-2

BELOW EL 55

$330 \times 980 \times \left(\frac{2+8}{2}\right) \times 7.5 = 12{,}127{,}500$ GALLONS

$\div 300{,}000 = 40$ DAYS (MAY 15 – JUNE 25)

FROM EL 60 TO EL 55

$350 \times 1010 \times 5 \times 7.5 = 13{,}256{,}250$ GALLONS

$\div 300{,}000 = 44$ DAYS (APRIL 1 to MAY 14)

INTEROFFICE MEMORANDUM

Date: 16-Feb-1999 01:33pm
From: David Rhodes TPA
RHODES_D
Dept: Southwest District
Tel No: 813/744-6100

Office

Subject: Re: Shady Hills WWTP - Sprayfield GW Assessment

On tuesday 2/16 you wrote:
//

David-

I hear that you've accepted a position w/ one of the utilities- Congratulations! Of course, before you're allowed to leave, everyone wants to pick your brain one last time... so here's my request!

What's the latest w/ the gw assessment of chlorides from the WWTP's sprayfield? Did DEP accept their assessment, or are we still going back and forth? Can you update me before you leave?

Thanks!

Allison
//

The Shady Hills WWTP assessment is on perc ponds--we have generally accepted thier assessment. We are waiting for the response to our RAI on the initial submittal of the RAP proposal. As we discussed previously, the EM survey data appears to be much closer to reality than the limited collection of ground water samples. The initial RAP proposal indicates a desire to install a large diameter well to withdraw ground water for blending purposes and mix the pumped contaminated ground water with this fresh water and reclaimed water for distribution into the Pasco County Master Reuse Plan. There is an article which indicates that the County is highly interested in a technology which may convert leachate into sodium hypochlorite solution. We have asked a bunch of questions about the nuts and bolts of permitting such a blending system and so on. There you have it, the latest and greatest!!!!!!!

Sarasota County,The Septage Plant assessment: we are waiting on thier response to our RAI requesting additional ground water table elevation data. This information should allow an accurate determination of the gradient between the pond site and the land fill. Depending on the direction of the gradient we will decide to either passively or actively collect the contaminated water around the pond site.

Pob 13 RETURN TO

KF
SM
AA
DN
SP

County to ask company to pay for faulty plant

A plant designed to treat contaminated water did not work properly for more than a year.

By JO BECKER

DADE CITY -- The manufacturer of a problematic $4-million plant designed to treat a byproduct of the county's garbage incinerator will be asked to pay monetary damages to the county, Pasco Utility Director Doug Bramlett said Tuesday.

The plant treats water contaminated with ash from the county's Shady Hills garbage incinerator. But the plant did not work properly -- and sometimes did not work at all -- for more than a year. Contaminated water, called leachate, collected in pits where the county stores incinerator ash, creating what one county consultant called an "environmental disaster ready to happen."

State environmental regulators, who feared the leachate could overflow the pits and contaminate the region's water supply, forced the county last spring to pay to haul the leachate to Tampa for treatment. Bramlett said the company that manufactured the plant's treatment equipment, Resource Conservation Corp., should be made to bear some of those costs as well as others the county incurred in fixing the plant.

"We have sent them a letter saying what the damages are," Bramlett said during an interview at Tuesday night's County Commission meeting in Dade City. He said he did not have that number readily available, but expected "protracted negotiations" at a meeting between county and company officials to be held Thursday.

At that meeting, county officials will also fight paying a $600,000 bill recently sent by Resource Conservation

Corp. The company is billing the county for parts and time it spent fixing the faulty plant, Bramlett said.

"We're saying, "no way,' " Bramlett said. "I've got a plant that didn't work for a year."

Meanwhile, Pasco's bill from an engineering consultant who helped the county oversee the design of the plant has more than doubled from what was initially estimated. In part, that is because of the problems at the plant, Bramlett said Tuesday as he asked county commissioners for an additional $89,751 for the firm Camp Dresser & McKee.

In 1995, the county estimated its engineering consulting fees for the plant at $195,477. The cost is now estimated at $392,706.

Bramlett said that some of the additional cost was incurred because the county needed Camp Dresser & McKee's help in fixing the plant. County commissioners unanimously approved Bramlett's request for the additional money, but not before Commissioner Steve Simon questioned the expense.

Of particular concern to Simon was Bramlett's memo describing to commissioners why the additional money is needed. Bramlett wrote that a "change of philosophy" at DEP meant that the county was "no longer permitted temporary storage of leachate" in the ash storage pits, "requiring leachate to be treated and transported to different locations."

"I did not know that we were ever allowed to store the leachate in the ash pits," said the recently elected Simon, who used the incinerator problems as a campaign issue. "So I was reading this and saying, "Whoa! Philosophy change? We were never allowed to store there.' "

In fact, officials at the Florida Department of Environmental Protection sent numerous letters to the county last year saying just that. Officials there complained that in an effort to save money, the county failed to quickly address the problems.

Bramlett said the "change of philosophy" to which his memo referred was actually changes the DEP forced the county to make during the construction of the plant.

That also increased the county's engineering costs, he said.

Still, the county's total engineering costs amount to only 9.3 percent of the plant's total construction cost, Bramlett said. That's well below the engineering industry's standard estimate of about 15 percent, he said.

The plant is now working properly, Bramlett said, and all the leachate that was stored in the ash pits has been hauled away or treated on site.

In other County Commission news:

County Attorney Karla Owens said her office is down from six attorneys to just three, including herself.

Commissioner David "Hap" Clark asked Owens what the commission could do to help her cope with the number of attorneys who have left her office to work elsewhere.

"More money would help," Owens said.

"I don't think we're going to keep these people unless we pay them," Clark agreed. "If we're going to have continuity in this organization, we need to put more money in."

Owens said she would bring back a proposal to the board at its first meeting in February.

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 10-Dec-1998 04:33pm
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District
Tel No: 813/744-6100

Office

To: Steve Morgan TPA (MORGAN_S)
CC: Allison Amram TPA (AMRAM_A)
CC: Kim Ford TPA (FORD_K)

Subject: Pasco County - Power Plant Siting

Pasco County has agreed to modify their Power Plant Siting Permit to include all conditions for operations of the landfill and the leachate treatment facility. Buck stated they have paid their $10000 fee and he has to issue by January 11, 1999. Please get your comments to Kim and I as soon as possible.

Steve - Get the CO ready prior to vacation. Thanks, Bob.

Steve - See the CDM letter on this subject on your chair.

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 20-Oct-1998 12:10pm
From: Henry Dominick TPA
DOMINICK_H
Dept: Southwest District

Office

Tel No: 542-6100 Ext. 404

To: Robert Butera TPA (BUTERA_R)
CC: Michael Hickey TPA (HICKEY_M)
CC: William Kutash TPA (KUTASH_W)
CC: Mohammed Kader TPA (KADER_M)
CC: Kim Ford TPA (FORD_K)

Subject: PASCO COUNTY LANDFILL

Bob, please give me some information regarding a telephonic request that I have just received from the referenced facility.

The requester identified himself as Darwisch and gave the following description.

The Landfill captures the leachate which is then routed to a treatment facility. That process crystallizes the leachate to produce a clear water stream for recycling and a salt byproduct which is returned to the landfill. Solid Waste (SW) permitted construction of the Landfill but does not want to permit its operation. Instead, SW is referring the County to Power Plant Site Certification (PPSC) for a modification of their document to include authorization of operation. Pasco County doesn't want to do that, however, because PPSC will impose additional conditions that the County doesn't want. Instead, they were advised to approach us and ask if they can apply for our permit.

It is true that the leachate treatment facility has definite industrial aspects to it. It would appear to be a waste of man hours, however, for us to permit an operation which takes a waste stream from your Landfill and returns it to that facility. You have all of the information and could apparently very easily process the request and include it in your permit. Since there is no discharge to the environment, an IW permit would not normally be required.

Darwisch gave Kim Ford's name as the contact person so Kim can most likely give you the more details concerning the request.

I told the County that I would call them back as soon as I talk to you about it.

Henry

PENALTY AUTHORIZATION

Steve
8/18/98

Investigator: Steven G. Morgan
Date Submitted: 8/21/98

1. VIOLATOR: Pasco County Board of County Commissioners("Pasco")

2. LOCATION OF VIOLATION: Pasco County Ressource Recovery Facility, Pasco County

3. NATURE OF VIOLATION:

Pasco operates and maintains ash disposal units A-1 and A-2 and an associated leachate treatment plant as part of the resource recovery facility under Power Plant Siting Certification #PA 87-23.

Pasco disposes of the ash generated at its solid waste incinerator in lined disposal units on-site. The leachate generated in these disposal units was previously sent to a County domestic wastewater treatment plant until it began to cause problems at the plant due to the high chloride levels in the leachate. The leachate is now removed and pumped to an on-site 2 million gallon storage tank. The leachate, which has a high chloride content is then pumped to an on-site treatment plant where chloride salts are distilled out and the resulting treated water used as cooling water for the solid waste incinerator. The by-product of the treatment plant, chloride salt solids, were to be bagged in water-proof bags and disposed of in the ash disposal units in such a manner as the bags would not be subject to breakage, and thus leakage.

On December 19,1996, Pasco received authorization to begin disposal of ash in ash disposal unit A-2. The 10 acre disposal unit was designed, permitted, and constructed with 3 segments, separated by interior berms and liner flaps, with a leachate collection system capable of collecting liquid in each section separately. The purpose of this segmented system was minimize the generation of leachate by sequential filling and managing water which fell in those segments where ash was not yet disposed as stormwater, rather than leachate.

A site visit to the facility on March 18, 1997 revealed that Pasco had deviated from their design and operation plan by disposing of ash across all 3 segments and over the entire bottom of the 10 acre cell, subjecting all stormwater which fell over the entire 10 acres to be treated as leachate.

On June 10, 1997, the County notified the Department that they placed the 2 million gallon storage tank into service, but problems with the treatment plant were delaying operation of the plant at full capacity. On September 25, 1997, in a phone conversation with Pasco it was indicated that there was greater than 1 foot of ponded leachate over the entire 10 acre A-2 ash disposal unit; the 2 million gallon leachate tank was full and no leachate had been removed from the disposal unit for some time; the leachate treatment plant was designed to treatment 30,000 gal./day was only treating 12,000 gal./day; and the chloride salts bags were being disposed of improperly. An inspection of the facility on October 6, 1997 revealed 3-5 feet of leachate over the entire A-2 disposal unit and salt bags disposed improperly and broken, causing leakage of salt into the waste. disposal unit On November 4, 1997, a conversation with Pasco revealed that Pasco had plugged the leachate collection system for the adjacent A-1 ash disposal unit and thus leachate was impounded there too. In a meeting with the Department on December 11,1997, Pasco informed the Department that they had altered the leachate collection system to allow for increased impoundment of leachate in disposal unit A-1. the

On November 28, 1997 the Department issued Warning Letter WL97-008SW51SWD to Pasco County for impounding leachate and failure to maintain their leachate management system.

During December 1997 through February 1998, Pasco County recorded 43.08 total inches of rainfall for the three month period. In addition, Pasco, to date has been unable to restore the leachate treatment plant to full operation. As of March 20, 1998, the ash disposal units have become impounded to within 28 inches of the top of the liner (approxiamately 14 feet of leachate) and the disposal units have a combined total of ~~facility had~~ approximately 35 million gallons of ash leachate impounded, ~~in the disposal units~~. Facing ~~with~~ potential overtopping or a breach in the integrity of the liner system, Pasco abandoned its 6 month effort to find "more economical solutions" and began hauling 200,000 gal/day of leachate to the City of Tampa WWTP and installation of a rain cell cover over portions of disposal unit A-2 in May 1998. Pasco informed the Department on July 8, 1998 that they were in compliance with maintaining the level of leachate over the liner below 1 foot, although this has not been confirmed by the Department to date.

In addition to the above noted violations, Department investigation has also revealed that several monitor wells, 4MW11D-4MW16D and 2MW13D, which were to be located around disposal unit A-2 and installed by January 1, 1996, were in fact not installing until early 1998 and the Department has received no well construction information or sampling results to date.

PENALTY RATIONALE:

The following is an evaluation of the proposed civil penalty of $431,172 for non-compliance with state statutes and Department rules prepared in accordance with the Department penalty policy. The figure is derived as follows:

A. Section 403.514 Florida Statutes and Florida Administrative Code("F.A.C.") Rule 62-701.400(3)-

Failure to limit the leachate head over the liner to less than one foot as designed.

A "Major Potential for Harm" was chosen for failure to maintain level of leachate such that there was a real potential for discharge of leachate to the environment. A "Major Extent of Deviation" was chosen for an exceedance of over 13 times above design level.

Penalty Range - $8,000 - $10,000
Penalty Chosen - $10,000
Adjustment for lack of good faith effort to comply before/after Department discovery - 25% = $2,500
Justification - County made no effort beyond normal operations to reduce leachate level prior to Department discovery. Eventual corrective action were delayed for months by County in an effort to avoid costs. Implementation of corrective action at onset of problem would have resulted in eliminating the imminent threat of environmental harm which was created.
Adjustment for history of non-compliance - 10% = $1,000
Justification - County currently has an open enforcement case at the facility for other issues and County had previous enforcement action taken against them for exceedance of level of leachate over the liner at the East Pasco Class I landfill.

Penalty Total - $13,500

Multiplying factor - $8,000 x 31 weeks
Justification - 31 weeks of violation between Warning Letter issuance on November 28, 1997 and compliance on July 8, 1998.

Multiplying Total - $248,000
TotalPenalty for Violation - $261,000

B. F.A.C. Rule 62-701.500(8)(b)-

Failure to maintain on-site leachate treatment system to function as part of the leachate management system as designed.

A "Major Potential for Harm" was chosen because the inability of the system to operate properly caused the backup of untreated leachate in the leachate collection system.
A "Major Extent of Deviation" was chosen because the system failed to operate as designed for at least 1 year.

Penalty Range - $8,000 - $10,000
Penalty Chosen - $8,000

Multiplying factor - $8,000 x 12 months
Justification - 12 months not operating or operating below design treatment capacity between May 1997 and May 1998.

Multiplying Total - $96,000
Total Penalty for Violation - $96,000

C. Section 403.516(c)Florida Statutes and F.A.C. Rules 62-701.320(1) and 62-701.500(8)(b). -

Modification of the leachate collection system for disposal unit A-1 without authorization from the Department.

A "Moderate Potential for Harm" was chosen because the modification occured at a lined Class I landfill.
A "Major Extent of Deviation" was chosen because the modification of the collection to allow for impoundment of leachate within the disposal unit would not have been permittable.

Penalty Range - $3,200 - $4,599
Penalty Chosen - $4,000
Adjustment for lack of good faith effort to comply before Department discovery - 20% = $800
Justification - County deliberately plugged the leachate collection system for disposal unit A-1 and then constructed entensions to manhole to alolw for maintaining impounded conditions in the disposal unit once the system was unplugged.

Total Penalty for Violation - $4,800

D. Section 403.514 Florida Statutes and F.A.C. Rule 62-701.500(2)(f). -

Failure to comply with method and sequence of filling established in in facility operation plan.

A "Major Potential for Harm" was chosen because the violation resulted the facility producing a greater amount of leachate than the facility's treatment system was designed to treat.
A "Major Extent of Deviation" was chosen because the facility disposed waste thoughout the entire 10 acre disposal units subjecting the entire 10 acre to leachate generation.

Penalty Range - $8,000 - $10,000
Penalty Chosen - $10,000
Adjustment for history of non-compliance - 25% = $2,500
Justification - County currently has an open enforcement case at the facility for failure to operate facility in accordance with facility operation plan at another portion of the facility.

Total Penalty for Violation - $12,500

E. Section 403.514 Florida Statutes and F.A.C. Rule 62-701.500(2)(f). -

Failure to comply with methods and procedures for disposal of leachate treatment plant residues in disposal unit A-2 established in in facility operation plan.

A "Major Potential for Harm" was chosen because the mismanagement of the chloride salts bag resulted in bag breakage and spillage of salts in the disposal unit, causing degredation of leachate quality and thus difficulties in proper treatment of the leachate.
A "Moderate Extent of Deviation" was chosen because a majority of the salt bags disposed in disposal unit A-2 were mismanaged.

Penalty Range - $6,000 - $7,999
Penalty Chosen - $7,000
Total Penalty for Violation - $7,000

F. Section 403.514 Florida Statutes and F.A.C. Rule 62-522.600(5) -

Failure to install monitor wells 4MW11D-4MW16D and 2MW13D by January 1996 and conduct sampling of these wells by April 1, 1996 and thereafter.

A "Major Potential for Harm" was chosen because these wells were to monitor disposal unit A-2. Therefore, throughout the entire period of time that there was the threat of impact because of leachate mismanagement in A-2, there was no groundwater monitoring system to m onitor that potential impact.
A "Major Extent of Deviation" was chosen because the wells were installed 2 years after the due date for installation.

Penalty Range - $6,000 - $7,999
Penalty Chosen - $7,000
Adjustment for Cost Avoidance - $47,624
Justification -

Jul 1996	Semi-annual sampling = $695 x 7 wells =		$4,865
Jan 1997	Annual sampling = $1606 x 7 wells =		$11,245
Jan 1997	Semi-annual sampling = $709 x 7 wells =		$4,963
Jul 1997	Semi-annual sampling = $709 x 7 wells =		$4,963
Jan 1998	Annual sampling = $1638 x 7 wells =		$11,466
Jan 1998	Semi-annual sampling = $723 x 7 wells =		$5,061
Jul 1998	Semi-annual sampling = $723 x 7 wells =		$5,061
		Total	$47,624

Total Penalty for Violation - $54,624

5. RECOMMENDATIONS

I recommend that up to $461,172 in civil penalties be sought against the Pasco County Board of County Commisioners as calculated on the attached Civil Penalties Worksheet.

Dr. Richard D. Garrity, Ph.D.
Director of District Management

_____ Approved

_____ Disapproved

Virginia B. Wetherell, Secretary

Date:

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 26-Jun-1998 05:26pm
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District
Tel No: 813/744-6100

Office

Subject: West Pasco Landfill

The following is the status of the leachate removal efforts at the Pasco County
Landfill resulting from an inspection June 25, 1998.

(1) A-2 - All leachate removed to a level less than 1 foot as required.

(2) A-1 - This ash filled cell has an estimated head of 8 feet. The volume of leachate in this cell should be substantially less than for the equivalent head in A-2. Pasco requested a reduction due to the fact they are hauling from A-1 which gravity feeds leachate to the sump through a 12" pipe. Once the head is reduced they will not be able to haul at the 204,000 gallon/day rate. Kim and I instructed them to haul as much as they could once the head is reduced.
It appears they were concerned if the loading time for a truck exceeded
45 minutes they would not be able to continue the current rate of hauling. As of this date they are continually hauling 204,000 gallons/day.

(3) Crom Tank - 5/8 full - about 1.3 million gallons.

(4) The rain cell cover has only been installed over the first of 5 sections of the landfill. The rain cell cover is currently being installed on the second and third sections which when complete will cover about half of the landfill. Vince estimated 4 working days for placing and seaming this cover. After completion of these 3 sections they will commence on grading and placing the rain cover on the final sections. Vince Mannella said the July 17, 1998 date for completion of
the installation should be met.

I recommend strongly that we require the county to haul 204,000 gallons/day. Pasco does not want to haul the 1.3 million gallons of leachate in the Crom Tank because they want to utilize their evaporator
for treatment of this leachate at the rate of 30,000 gallons/day. It will take 43 days to treat the volume in the tank. The Department just
authorized a time extension for the test period for the evaporator to another year due to the past downtime on the facility. The Department
has no assurance the facility will continue to operate without
a malfunction. Note: If they pumped all leachate to the Crom Tank they would be able to haul 204,000 gallons per day not

impacting the vehicle loading time. They have already hauled from the tank for a period of 7 days at a maximum of 192,000 gallons/day.

Conclusion: Suggest that we require Pasco to haul at the rate of 204,000 gals./day until the 5 sections of the landfill are covered with a rain cell cover, A-1 and A-2 are in compliance with 1 foot head over the liner requirement, and the Crom Tank is empty. If the leachate flow rate drops coming
from A-1 they can haul additional leachate from the Crom Tank. The intent of the 2,000,000 gallon tank was to provide storage during the summer months to accommodate leachate generated during the summer and extreme rain events. The tank should be empty to accommodate future rainfall, especially at this time of the year.

Kitzul
↳ Bob B. City E.

basin A2	10.8 acres	459648	sq feet									
WATER EL	60	FEET										
START VOL	20,000,000	GALLONS										
60	10 ACRES											
	10 ACRES											
	56	10 ACRES	8 ACRES	6 ACRES	4 ACRES	2 ACRES	0					
							53					
			GALLONS						SG FT			
START	TRUCK 200K/D -	INT BAL	RAINFALL	BALANCE	ASH +	DIFF	NEW ELV	ELEV -	BASIN	RAIN FT	RAIN	
20,000,000	6,100,000	13,900,000	566899.2	13,766,899	700,000	6,233,101	58.00	1.98	459648	0.17	2	MAY
13,766,899	6,100,000	7,666,899	2267596.8	9,234,496	700,000	4,532,403	56.56	1.44	459648	0.67	8	JUNE
9,234,496	6,100,000	3,134,496	2267596.8	4,702,093	700,000	4,532,403	55.12	1.44	459648	0.67	8	JULY
4,702,093	6,100,000	-1,397,907	2040837.1	-57,070	700,000	4,759,163	53.61	1.51	367718.4	0.75	9	AUG
-57,070	6,100,000	-6,157,070	1360558.1	-4,796,512	0	4,739,442	52.11	1.50	275788.8	0.67	8	SEPT
-4,796,512	6,100,000	-10,896,512	680279.04	-10,216,233		5,419,721	50.38	1.72	183859.2	0.50	6	OCT
-10,216,233	6,100,000	-16,316,233	113379.84	-16,202,853		5,986,620	48.48	1.90	91929.6	0.17	2	NOV
-16,202,853	6,100,000	-22,302,853	0	-22,302,853		6,100,000	46.55	1.94	0	0.17	2	DEC

	PROJECT_#	PROJECT_NAME	DESCRIPTION	OFFICE	COUNTY	PROGRAM_AREA
377	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
378	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
379	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
380	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
381	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
382	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
383	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
384	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
385	87339	CITY OF ST. PETERSBURG - FLEET MANAGEMENT	FAILURE TO INSTALL SECONDARY CONTAINMENT, FAILURE TO INSTALL DISPENSER LINERS	SWD		52 TK
386	90640	S & B GO, INC	Bulk Fuel Storage Tank Facility	SWD		27 TK
387	90640	S & B GO, INC	Bulk Fuel Storage Tank Facility	SWD		27 TK
388	90640	S & B GO, INC	Bulk Fuel Storage Tank Facility	SWD		27 TK
389	90640	S & B GO, INC	Bulk Fuel Storage Tank Facility	SWD		27 TK

STEVE

I SUGGEST CHANGING TO REMOVE AT LEAST 200,000 GPD AND COVER BY SEPT 1st

ED

Kim 4/27/98

1/3

100,000 PER DAY

	RAIN	GALLONS INTO A-2	GALLONS REMOVED	DISPLACED BY DISCHARGE IN 3 MONTHS	APPARENT VOLUME	DISPLACED BY DISCHARGE IN 3 MONTHS	APPARENT VOLUME	EL
April 30					20,000,000		20,000,000	60.0
May 31	2	544,500	3,100,000	700,000	18,144,500	1,866,562	19,311,062	
June 30	8	2,178,000	3,000,000	700,000	18,022,500	1,866,562	20,355,624	
July 31	8	2,178,000	3,100,000	700,000	17,800,500	1,866,562	21,300,186	60.52
Aug 31	9	2,450,250	3,100,000	700,000	17,850,750	0		
Sept 30	8	2,178,000	3,000,000	700,000	17,125,750	0		
Oct 31	6	1,633,500	3,100,000	700,000	16,962,750	0		
Nov 30	2	544,500	3,000,000	700,000	15,206,750	0		
Dec 31	2	544,500	3,100,000	700,000	13,351,250	0		

ACTUAL VOLUME IN A-2 AT END OF DECEMBER

13,351,250 − (700,000 × 8) = 7,751,250 GALLONS

Kim

(1) ONCE they clear first cell and INSTALL rain cover — ash can be disposed of without displacement?

2/3 (2) RAINFALL will be over small catchment area as they add rain covers — reducing input volumes — is that included here?

150,000 PER DAY

	GALLONS REMOVED	APPARENT VOLUME	EL
		20,000,000	60.0
	4,650,000	17,761,062	
	4,500,000	17,305,624	
	4,650,000	16,700,186	
	4,650,000	14,500,436	56.6
	4,650,000		
	4,650,000		
	4,500,000		
	4,650,000		

7,751,250

NO DISCHARGE NO RAIN COVER

100,000 GALL PER DAY NO ENOUGH

NO DISCHARGE RAIN COVER OVER 6 ACRE

RECOMMEND REMOVE AT LEAST 150,000/DAY AND COVER BY SEPT 1st

20,000,000 − 14,500,436 = 5,499,564

5,499,564 × .613′ = 3.37′ LOWERED

60 − 3.37 = 56.6

⇒ GEOMEMBRANE IS 3.4′ ABOVE LEACHATE, OK

STEVE
I SUGGEST CHANGING
ED TO REMOVE AT
LEAST 200,000 GPD AND
COVER BY SEPT 1ST
KM 4/27/98

1/3

		Rain Gallons Rain	100,000 per day Gallons Removed	Displaced by Ash in 8 months	Apparent Volume	EL
		A-2				
April	30				20,000,000	
May	31	2	544,500	3,100,000	700000	18,144,500
June	30	8	2,178,000	3,000000	700000	18,022,500
July	31	8	2,178,000	3,100,000	700000	17,800,500
Aug	31	9	2,450,250	3,100000	700000	17,850,750
Sept	30	8	2,178,000	3,000000	700000	17,725,750
Oct	31	6	1,633,500	3,100000	700000	16,962,250
Nov	30	2	544,500	3,000000	700000	15,206,750
Dec	31	2	544500	3100000	700000	13,351,250

ACTUAL VOLUME IN A-2
AT END OF DECEMBER
13,351,250 − (700,000 × 8) = 7,751,250 GALLONS

2/3

	Displaced by Ash in 3 months	Apparent Volume	EL
		20,000,000	60.0
	1,866,562	19,311,062	
	1,866,562	20,355,624	
	1,866,562	21,300,186	60.52
	0		
	0		
	0		
	0		
	0		

NO DISCHARGE
NO RAIN COVER
100,000 GAL PER DAY
NO ENOUGH

150,000 PER DAY

	Gallons Removed	Apparent Volume	EL
		20,000,000	60.0
	4650000	17,761,062	
	4500000	17,305,624	
	4650000	16,700,186	
	4650000	14,500,436	56.6
	4650000		
	4650000		
	4500000		
	4650000		

NO DISCHARGE
NO RAIN COVER
OVER 6 ACRES

RECOMMEND
REMOVE AT LEAST 150,000/DAY
AND COVER BY SEPT 1ST

20,000,000 − 14,500,436 = 5,499,564

5,499,564 × .613′ = 3.37′
(OWENS)

60 − 3.37 = 56.6

⇒ GEOMEMBRANE IS 3.4′
ABOVE LEACHATE, OK

1/3

		Rain Gallons IN A-2	100,000 per day Gallons Removed	Displaced by Rain Amounts	Apparent Volume	Leachate Elevation in A-2
April	30				20,000,000	60.
May	31	2	544,500	3,100,000	700000	18,144,500
June	30	8	2,178,000	3,000000	700000	18,022,500
July	31	8	2,178,000	3,100000	700000	17,800,500
Aug	31	9	2,450,250	3,100000	700000	17,850,750
Sept	30	8	2,178,000	3000000	700000	17,725,750
Oct	31	6	1,633,500	3,100000	700000	16,962,250
Nov	30	2	544,500	3000000	700000	15,206,750
Dec	31	2	544500	3100000	700000	13,351,250

ACTUAL VOLUME IN A-2
AT END OF DECEMBER
13,351,250 - (700,000 x 8) = 7,751,250 Gallons

2/3 2/3

Displaced by ash in 3 months	Apparent Volume	EL
	20,000,000	60.0
1,866,562	19,311,062	
1,866,562	20,355,624	
1,866,562	21,300,186	60.52
0		
0		
0		
0		
0		

No discharge
No rain cover

100,000 cash
No penalty
No incentive

150,000 PER DAY

Gallons Removed	Apparent Volume	EL
	20,000,000	60.0
4,650,000	17,761,062	
4,500,000	17,305,624	
4,850,000	16,700,186	
4,650,000	14,500,436	56.6
4,650,000		
4,650,000		
4,500,000		
4,650,000		

NO DISCHARGE
RAIN COVER
OVER 6 ACRES

RECOMMENDED
REMOVE AT LEAST 150,000/DAY
AND COVER BY SEPT. 1ST

20,000,000 − 14,500,436 = 5,499,564

5,499,564 × .613′ = 3.37′
(OWNER)

60 − 3.37 = 56.6

⇒ GEOMEMBRANE IS 3.4′
ABOVE LEACHATE, OK

226,250 SF × 25

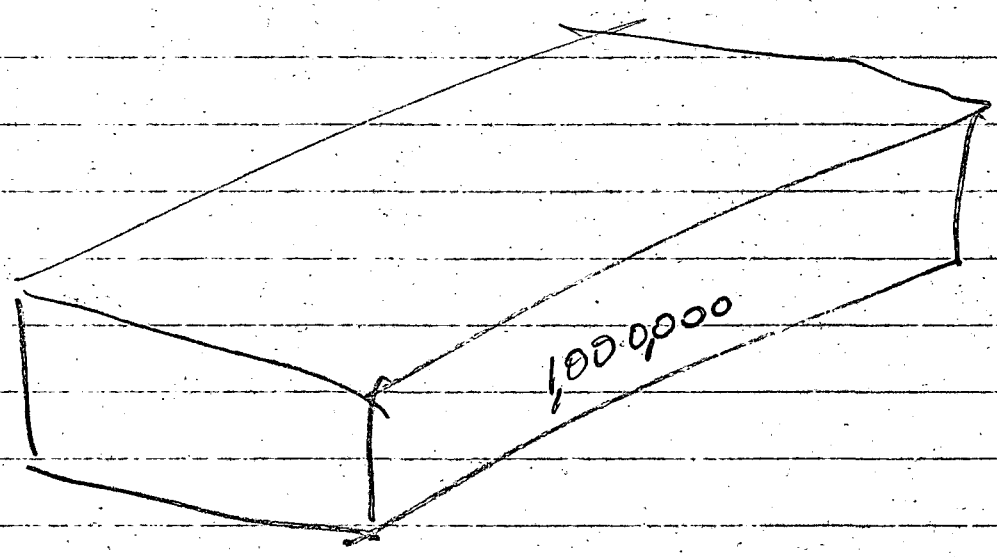
= 4,242,187 Gallon

+ 14,300,000

= 18,500,00 Gallons

in A-2

8 AC X
43560 = 348480 SF



1,000,000 = ____ ' x 348480 x 7.5

1,000,000 x $\frac{1}{348480}$ x $\frac{1}{7.5}$ = .383 '

⟹ .4 ' @ POROSITY 1.
PER
1,000,000 GALLONS

~~1 3x.4 = .5~~

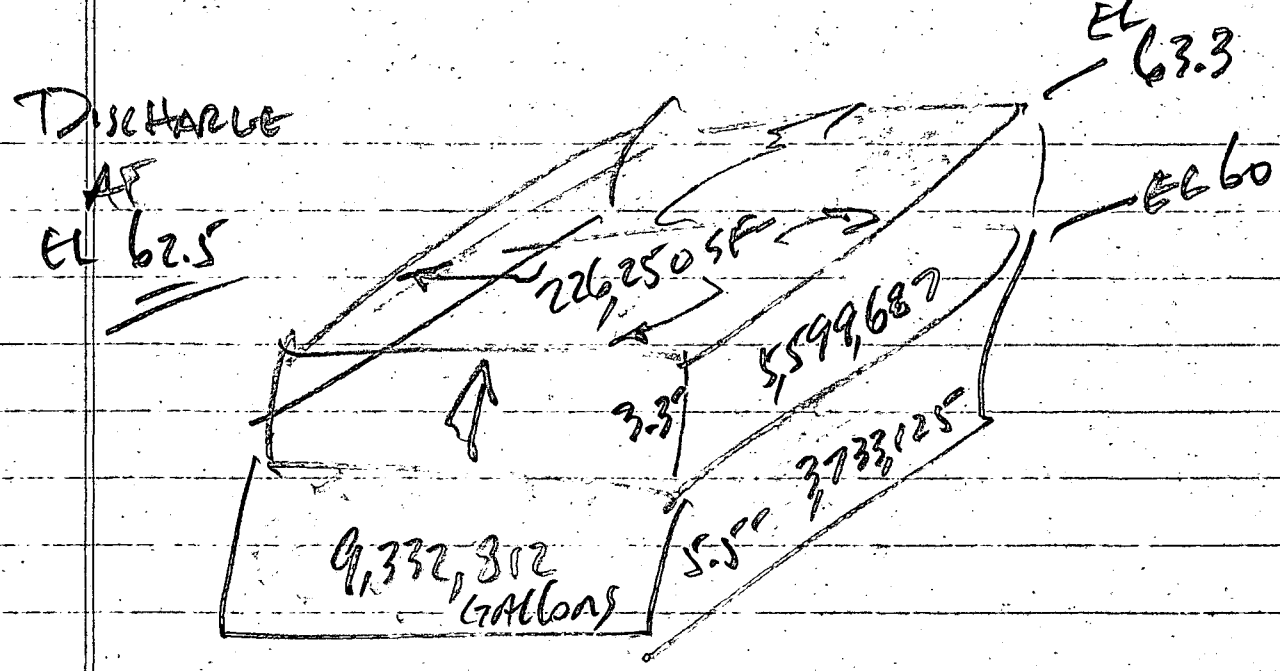
⟹ IN ASH @ POROSITY = .4

1.6 x .383 = .613 '

$\sqrt{\frac{.60}{.4}}$ = .6 '

5.4 1.4

5.4 . 6



$$5{,}599{,}687 = \_\_' \times 226{,}250\ SF \times 7.5\ \frac{GALL}{CF}$$

$$5{,}599{,}687 \times \frac{1}{226250} \times \frac{1}{7.5} = 3.3'$$

3.3' RISE
DUE TO DISPLACEMENT
BY ASH DISPOSAL
INTO LEACHATE

3.3 ÷ 8 months

5599687 ÷ 8

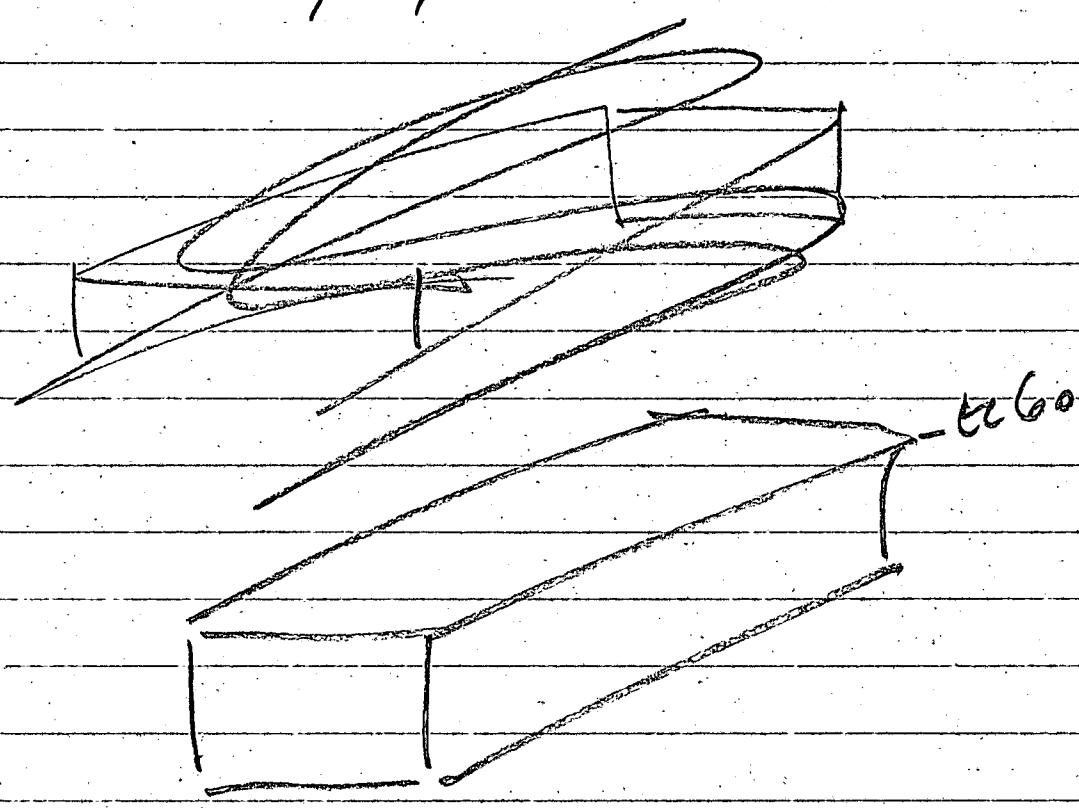
699,960 / one

$699960 = \underline{\quad} \; 226250 \times 7.5$

$699960 \times \frac{1}{226250} \times \frac{1}{7.5} = \underline{\underline{.4}}$

~~Inc~~ Lowering in AFH

1,000,000



LAW
ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

December 19, 1997

Mr. Richard D. Garrity, Ph.D.
Director of District Management
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Subject: **West Pasco Landfill**
Ash Disposal Units A-1 and A-2
Number PA87-23, Pasco County
LAW Project 40141-7-0317

Dear Dr. Garrity:

Law Engineering and Environmental Services, Inc. on behalf of Pasco County is providing the following information as a follow-up to our meeting on December 11, 1997:

Maintenance activities in A-1 - As you recall Pasco County plugged the leachate collection system outfalls from Ash Disposal Unit (A-1) as an emergency measure to avert an overflow from the pump station. The existing valves between the collection system and the manholes will not close completely because they are damaged. The leakage rate is on the order of 110,000 gallons per night and as you know the County has had no place to dispose of this rate of flow. Installing the plug was the only way to stop flows to the manhole and the pump station further downstream. Obviously, the next step was to replace the valves but it could not be done safely without possible spillage of leachate when the valve are removed. It was decided to place the new valves downstream of the manholes and to abandon the damaged ones in an open position. In order to do that it was necessary to raise the manholes to a height sufficient to allow leachate to rise in the manhole to a level equal to the level of leachate in the disposal unit when the new valve was closed. These activities have been completed.

Estimated quantity of leachate in A-1 and A-2 - The quantity of leachate in A-1 is estimated to be 8.6 million gallons based on the geometry of the disposal unit, the elevation of the leachate and a porosity of 0.4 for the drainage sand and the ash. The geometry of the disposal unit was taken from the construction record drawings. The elevation of the leachate was determined by opening an old valve, closing the new valve and allowing the leachate to rise in the raised manhole up to the level in the disposal unit. The elevation of leachate in the unit is 61.25 or approximately two feet below the top of perimeter berm. In regard to the porosity, the ash appears to act as an excessively well drained sand or small gravel so a value of 0.4 for porosity is reasonable.

4919 W. LAUREL STREET • TAMPA, FL 33607
(813) 289-0750 • FAX (813) 289-5474

The quantity of leachate in A-2 is calculated to be 14.3 million gallons. The elevation of leachate in A-2 was estimated by observing the leachate level at the southwest corner of the disposal unit. There is a two feet drainage layer and two feet of ash and the leachate level appeared to be 9 inches deep. Adding these depths to the elevation in this corner from the construction record drawings leads to the estimated elevation of 57.55. Then the area filled with ash above the level of the leachate and the area open or unfilled with ash were estimated. The estimate was 40 % filled and 60 % unfilled. The same porosity was used for the ash and drainage sand as in A-1 and a porosity of 1 was used for the unfilled area.

The total leachate in the two disposal units is approximately 23 million gallons. In addition, the tank at the treatment plant contains approximately 2 million gallons. The calculations are enclosed in a table. The County is constructing a staff gage in A-2 to allow monitoring the leachate level and LAW will provide a calibration to relate level to the estimated quantity in A-2.

Disposal/Pumping Activities - The County hauled 96,000 gallons of leachate to the New Port Richey Wastewater Treatment Plant during the period from December 10 to 18, 1997. The hauling to the Tampa plant is scheduled to begin December 19, 1997. The County is pumping leachate from A-1 to A-2 at a rate of approximately 100,000 gallons per day. The total to date is 320,000 gallons.

Proposed future actions - We believe it is now critical that Florida Department of Environmental Protection allow Pasco County to reinstall the meter and pump at least 30,000 gallons/day to the Shady Hills Wastewater Treatment Plant. We have a potential environmental disaster ready to happen. The cell berms have not been designed or built to withstand ten feet of hydrostatic load. At a hauling/processing rate of 128,000 gallons per day it will take 180 days to lower the leachate level to the one-foot criteria if it does not rain again during that time. (STARTING WATER - 7 6

Sincerely,

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

12/19/97 Richard E. Mayer

Richard E. Mayer, P.E.
Principal Engineer

George W. Ellsworth

George W. Ellsworth, P.G.
Senior Hydrogeologist

REM/cjs/40140/LETTER/4014170317.L1

cc: Robert Butera
Kim Ford
Doug Bramlett - Pasco County

WEST PASCO CLASS I LANDFILL

Cell A-1

CELL WIDTH			CELL LENGTH			WATER	CELL BASE ELEVATION					Volume	Filled/	Porosity	Gallons
Base	Top	Avg.	Base	Top	Avg.	LEVEL	NE	SE	SW	NW	Avg.	(cf)	Unfilled		(Millions)
310	370	340	970	1045	1007.5	61.25	50.7	50.3	54.6	55.8	52.85	2877420	1	0.4	8.62

Cell A-2

CELL WIDTH			CELL LENGTH			WATER	CELL BASE ELEVATION					Volume	Filled/	Porosity	Gallons
Base	Top	Avg.	Base	Top	Avg.	LEVEL	NE	SE	SW	NW	Avg.	(cf)	Unfilled		(Millions)
310	355	332.5	955	1050	1002.5	57.55	47	50	52	51	50	2516650.94	0.4	0.4	3.02
													0.6	1	11.31

TOTAL GALLONS (in millions) 22.94

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date: 2/20/97

Number of pages including cover sheet: 10

To: Bob Peacock
SPHE STASIS

Phone: 4647565
Fax phone: 4647713
CC:

From: Kim Ford

Phone: (813) 744-6100 x 382
Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

Bob - you mentioned some confusion on the balance. So I reviewed the past yrs reports regarding evaporation. I think the amount evaporated can be simplified by using .85 x avg pan evap monthly totals rather than daily. There appears to be a problem with some of the values used for evaporation in the past.

Thx for your help
Kim

BRIDGEWATER LF
EVAPORATION

ASSUMPTIONS:

① USE 100 ACRE SURFACE AREA AT ELEV. 4.0
= 65 ACRES POND +
20 ACRES TEMP POND +
15 ACRES OTHER PONDS & CANALS

② USE .85 X AVERAGE MONTHLY PAN EVAP

(DO NEED TO ENTER DAILY USE MONTHLY TOTAL ON SPREADSHEET? ANNUAL SUMMARY)

	'96 REPORTS AC-FT	X 12" / 100 ACRES		TABLE 3. .85X MONTHLY AVG.	X 100 ACRES / 12"	
JAN	14	=	1.68"	2.38"	=	19.8 AC-FT
FEB	27	=	3.24"	3.04"	=	25.3
MAR	63	=	7.56"	4.43"	=	36.9
APR	123	=	14.76"	5.38"	=	44.8
MAY	101	=	12.12"	6.35"	=	52.9
JUNE	150	=	18.00"	5.63"	=	46.9
JULY	61	=	7.32"	5.39"	=	44.9
AUG	70	=	8.40"	5.17"	=	43.1
SEPT	129	=	15.48"	4.60"	=	38.3
OCT	29	=	3.48"	3.95"	=	32.9
NOV	25	=	3.00"	2.79"	=	23.2
DEC	20±	=	2.40"	2.21"	=	18.4
	812					427

≠

Best Available Copy

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. MIKE RODD
2. PINELLAS COUNTY
3. SOLID WASTE MANAGEMENT
4. 3095 114th AVENUE North

Remarks: ST PETERSBURG FL 33716

I HAVE ENCLOSED INFO THAT SHOULD BE HELPFUL TO YOU IN ANSWERING OUR QUESTIONS. PLEASE CALL TO DISCUSS.

Thx

From: [signature]

Date 10/19/95

Phone

a Only) or
-800-231-6103

303 Highway 44 West
wernes, Florida 34453-3809
04) 637-1360

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1995
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Southwest Florida Water Management District

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Tampa, Florida 33637-6759
(813) 985-7481 SUNCOM 578-2070

170 Century Boulevard
Bartow, Florida 33830-7700
(813) 534-1448 SUNCOM 572-6200

115 Corporation Way
Venice, Florida 34292-3524
(813) 483-5970 SUNCOM 549-5970

2303 Highway 44 West
Inverness, Florida 34453-3809
(904) 637-1360

An Equal Opportunity Employer

September 22, 1995

RECEIVED
SEP 25 1995
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

Mr. Kim Ford
Department of Environmental Protection
3804 Coconut Palm
Tampa, Florida 33619-8318

Subject: Rainfall + Evaporation Data

Dear Mr. Ford:

Enclosed is the rainfall and evaporation data you requested.

Should you need further assistance, please do not hesitate to contact us. If you wish to speak with me directly, my extension is 4311.

Sincerely,

JoAnn Gilroy
Data Collection Technician
Hydrologic Data Section

Excellence Through Quality Service

Table 3. Average monthly pan evaporation (inches) and coefficient of variance (c.v.).

Station	Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
Gainsville	12	2.76	3.49	4.98	6.07	7.46	6.83	6.52	6.03	5.27	4.65	3.17	2.49	59.72
Inglis	8	2.27	3.21	4.89	6.13	7.07	6.25	6.11	5.73	4.98	4.26	2.83	2.26	55.99
Wildwood	11	2.08	2.94	4.85	6.19	7.49	6.64	6.68	6.39	5.13	3.87	2.15	1.79	56.22
Inverness	9	3.23	3.82	5.34	6.36	7.71	7.06	6.98	6.71	5.83	4.78	3.91	3.31	65.02
S.W.F.W.M.D.	15	2.75	3.51	5.21	5.96	7.26	7.05	6.27	6.19	5.31	4.63	3.29	2.73	60.13
Lake Padgett	1	2.42	2.82	4.12	5.01	7.08	5.17				4.22	3.06	2.62	
Lake Alfred	12	3.62	4.73	6.49	7.76	8.97	7.95	7.77	6.83	6.59	5.94	4.09	3.41	74.15
Dover	9	2.17	2.94	4.43	5.23	6.39	5.81	5.49	5.32	4.69	3.97	2.81	2.08	51.33
Avon Park	9	3.08	3.79	5.45	6.86	7.84	7.26	7.55	6.95	6.35	5.08	3.79	2.67	66.68
Bradenton	9	2.82	3.43	4.62	6.05	7.27	5.78	5.68	4.74	5.11	4.72	3.49	2.71	56.41
Ona	10	3.68	4.45	5.99	7.39	8.57	7.68	7.21	7.18	5.49	4.89	3.74	3.04	69.31
Archbold	11	2.14	3.09	5.05	6.05	7.14	6.01	5.95	5.93	5.17	4.32	2.57	1.92	55.34
Peace River	7	3.06	3.57	5.21	5.89	6.47	5.16	3.94	4.96	5.03	4.74	3.47	2.82	54.32
Average+		**2.80**	**3.58**	**5.21**	**6.33**	**7.47**	**6.62**	**6.34**	**6.08**	**5.41**	**4.65**	**3.28**	**2.60**	**60.38**
Gainsville	12	13	9	13	13	11	10	13	13	10	10	10	13	11
Inglis	8	13	18	14	11	7	7	17	21	20	12	8	18	14
Wildwood	11	27	14	14	8	9	8	9	8	15	14	18	30	15
Inverness	9	17	19	14	14	9	5	11	14	6	8	26	28	15
S.W.F.W.M.D.	15	18	15	18	14	11	10	16	14	15	17	15	17	15
Lake Padgett	1													
Lake Alfred	12	19	14	12	12	12	10	8	12	12	9	8	8	12
Dover	9	9	7	7	5	6	8	7	5	10	9	10	8	8
Avon Park	9	30	22	19	21	19	24	19	17	24	26	35	31	24
Bradenton	9	13	19	14	11	11	13	20	22	25	8	6	18	15
Ona	10	34	48	47	44	40	48	41	33	16	14	7	8	32
Archbold	11	13	10	7	13	5	16	10	7	8	5	13	14	11
Peace River	7	11	11	12	16	12	23	30	18	19	10	11	15	16

+ Lake Padgett excluded

	Dover 1992	Dover 1993	Dover 1994	Dover 1995	Bradenton 1992	1993	1994	1995	Monthly Lows
Jan	2.0	—	2.0	1.9	2.7	—	—	—	1.9
Feb	2.7	2.6	2.5	2.9	—	—	3.3	3.0	2.5
Mar	4.0	—	4.2	3.7	—	—	4.7	4.6	3.7
Apr	4.8	5.3	5.1	4.6	5.2	—	5.8	4.9	4.6
May	6.4	—	6.9	6.5	—	6.8	6.8	7.3	6.4
Jun	—	—	5.3	—	—	7.1	6.3	—	5.3
July	6.8	5.8	5.4	—	—	6.2	5.7	—	5.4
Aug	—	—	4.4	—	—	—	5.8	—	4.4
Sept	—	4.1	3.5	—	5.3	5.4	4.4		3.5
Oct	—	—	3.6		4.2	—	3.8		3.6
Nov	—	2.4	2.5		3.6	—	3.5		2.4
Dec	—	—	2.0		2.7	—	2.3		2.0
									45.7

Rainfall

	19[illegible]	19[illegible]	1994	1995		MONTHLY HIGHS
Jan	2.0	3.5	6.0	5.7		6.0
Feb	4.0	2.3	0.6	1.3		4.0
Mar	1.0	6.9	2.2	3.4		6.9
Apr	4.0	2.1	2.1	–		4.0
May	1.4	2.3	0.8	–	2	2.3
June	11.3	4.8	6.1	7.4	7	11.3
July	3.0	4.5	7.3	5.2	8	7.3
Aug	11.3	6.9	11.8		11	11.8
Sept	3.7	4.4	10.2		10	10.2
Oct	5.1	3.7	4.3		4	5.1
Nov	2.7	0.5	1.6		2	2.7
Dec	0.5	1.9	2.3		2	2.3
						73.9

RAINFALL

	BARTON 1992	1993	1994	1995		MONTHLY HIGHS
JAN	2.0	5.6	3.6	2.8		5.6
FEB	4.3	2.0	2.4	1.7		4.3
MAR	1.2	3.9	2.8	0.9		3.9
APR	5.0	5.0	3.0	5.1		5.1
MAY	0.4	2.1	2.2	1.5	(2)	2.2
JUNE	10.1	3.1	9.4	8.9	(8)	10.1
JULY	5.6	5.9	6.6	13.3	(13)	13.3
AUG	12.6	6.5	10.9	10.6	(10)	12.6
SEPT	4.2	5.5	10.2		(9)	10.2
OCT	2.1	5.7	3.6		(4)	5.7
NOV	2.1	0.5	2.6		(2)	2.6
DEC	—	1.5	2.7		(2)	2.7
						78.3

RAINFALL

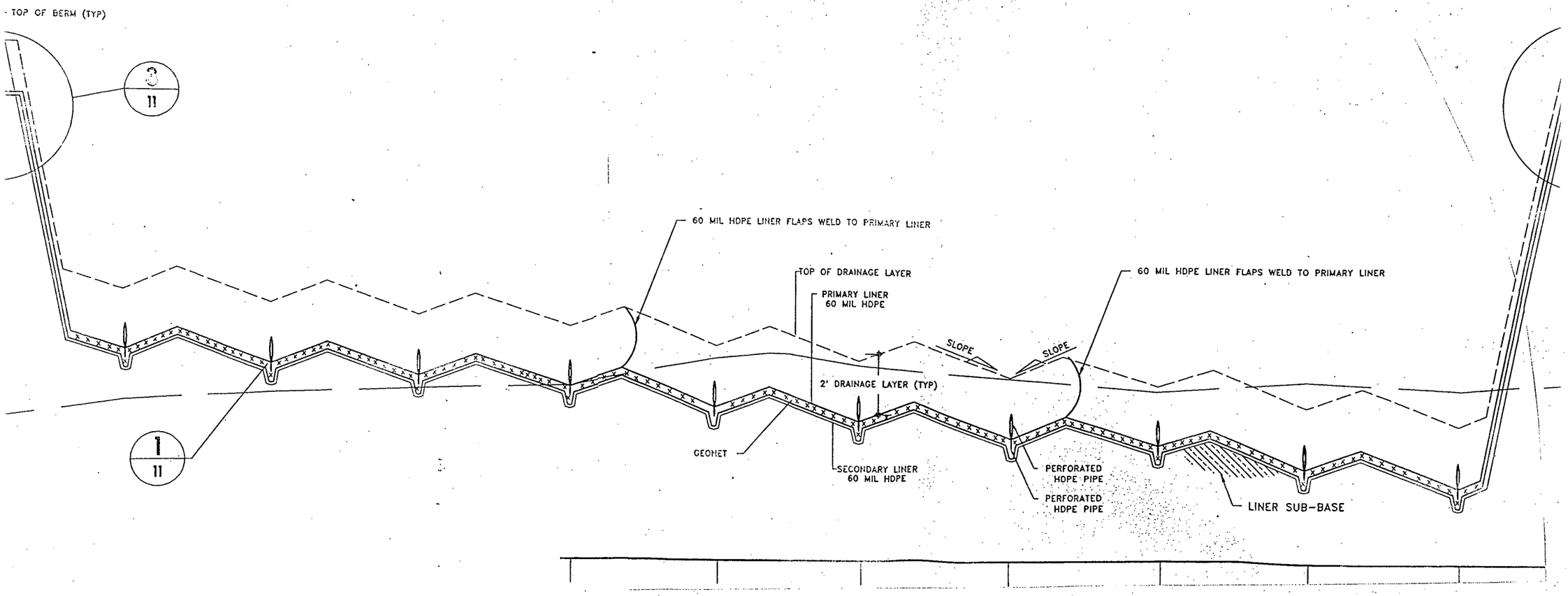
	JENICE 1992	1993	1994	1995		monthly HIGHS
JAN	1.1	6.4	4.5	3.3		6.4
FEB	4.4	3.1	0.4	2.1		4.4
MAR	2.6	5.7	2.0	1.3		5.7
APR	1.6	5.2	2.2	3.0		5.2
May	1.8	2.5	0.1	0.1	(1)	2.5
June	25.9	2.5	3.9	14.2	(11)	25.9
July	2.9	4.1	4.8	15.6	(7)	15.6
AUG	8.9	8.3	10.6		(9)	10.6
Sept	7.0	2.2	12.0		(7)	12.0
Oct	5.2	7.4	3.5		(5)	7.4
NOV	0.8	0.2	1.5		(1)	1.5
DEC	0.9	1.1	2.7		(2)	2.7
						99.9

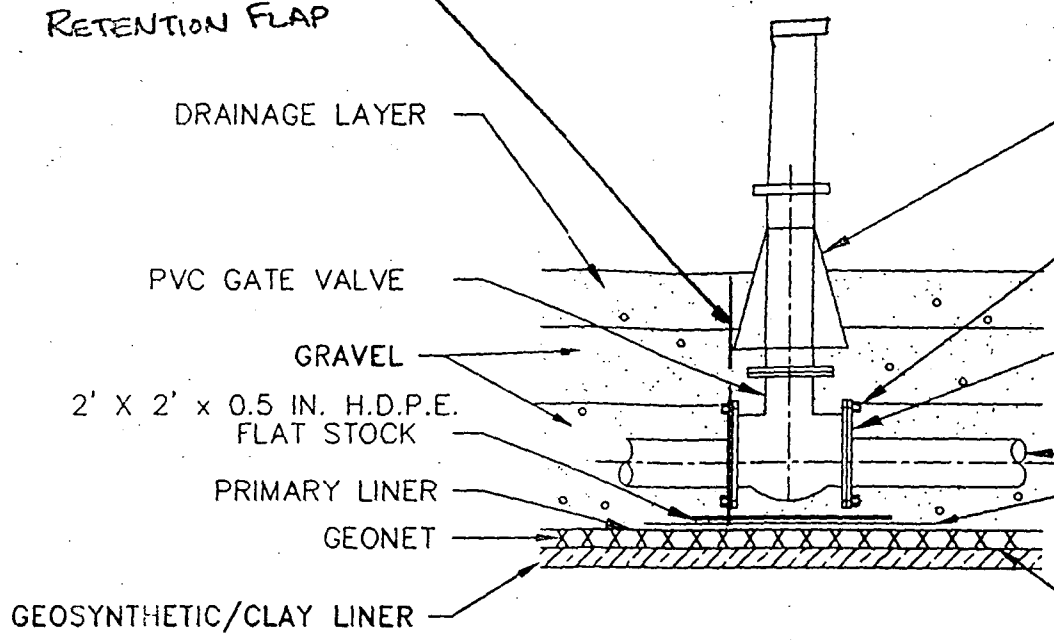
RAINFALL

	TAMPA INT. AIRPORT 1992	1993	1994	1995		MONTHLY HIGHS
JAN	1.5	3.6	3.7	3.5		3.7
FEB	3.7	2.3	0.4	2.0		3.7
MAR	0.9	3.9	0.7	2.0		3.9
APR	2.2	2.4	3.4	1.5		3.4
MAY	0.1	1.7	0.1	1.7	(1)	1.7
JUNE	7.0	3.2	6.0	9.8	(7)	9.8
JULY	2.8	2.9	11.3	10.1	(7)	11.3
AUG	8.2	5.1	8.4		(7)	8.4
SEPT	2.9	6.6	8.2		(6)	8.2
OCT	2.2	4.2	1.5		(3)	4.2
NOV	2.4	0.2	0.3		(1)	2.4
DEC	1.0	1.2	1.6		(11)	1.6
						62.3

Transmit Confirmation Report

No.	:	008
Receiver	:	9-464-7713
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Feb 20 97 13:26
Time	:	04'23
Mode	:	Norm
Pages	:	10
Result	:	OK

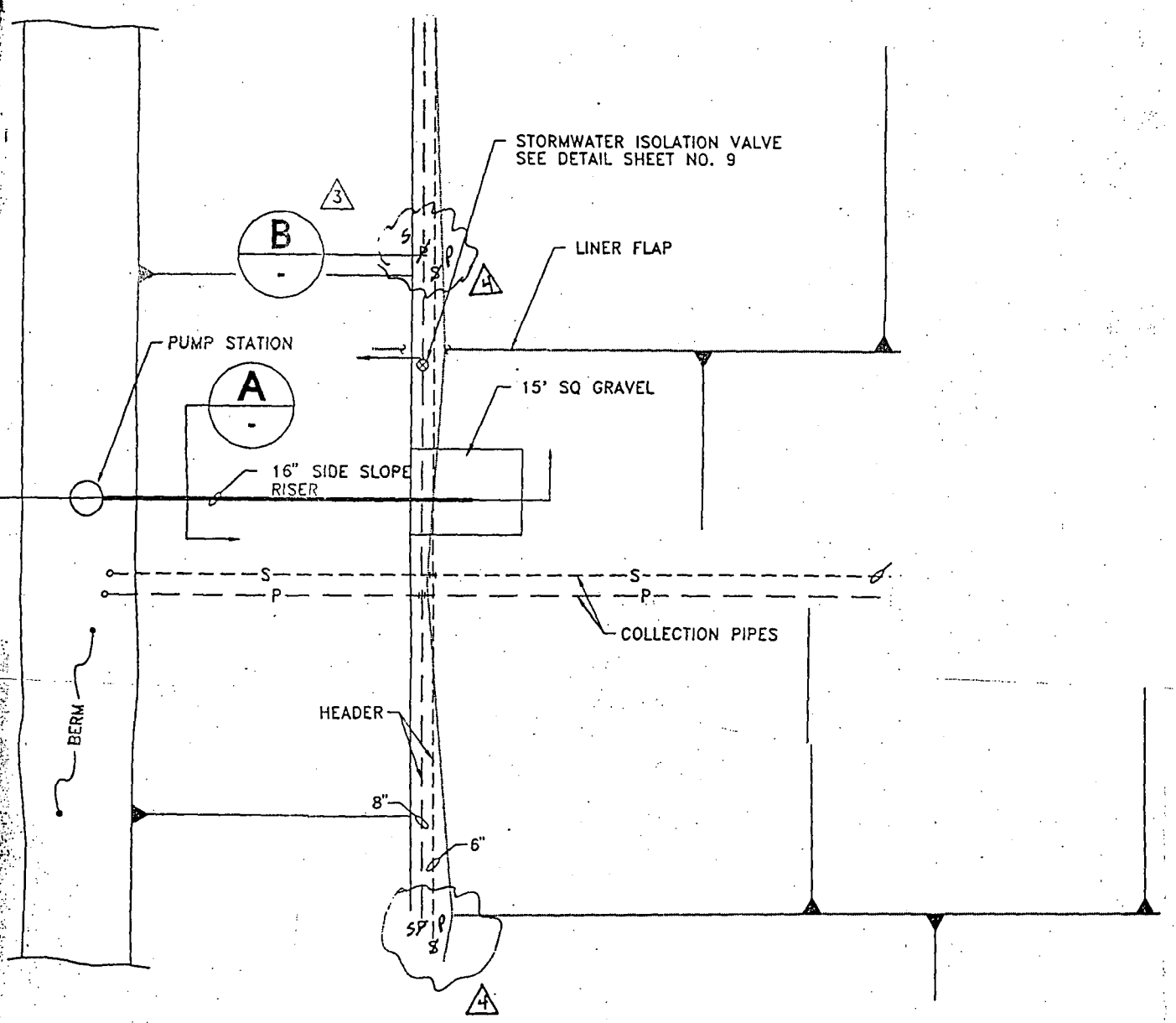

TOP OF BERM (TYP)
3
11
60 MIL HDPE LINER FLAPS WELD TO PRIMARY LINER
TOP OF DRAINAGE LAYER
PRIMARY LINER
60 MIL HDPE
60 MIL HDPE LINER FLAPS WELD TO PRIMARY LINER
SLOPE
SLOPE
2' DRAINAGE LAYER (TYP)
1
11
GEONET
SECONDARY LINER
60 MIL HDPE
PERFORATED
HDPE PIPE
PERFORATED
HDPE PIPE
LINER SUB-BASE



GATE VALVE DETAIL

NOT TO SCALE

3



STORMWATER WITHDRAWAL POINTS DETAIL (TYPICAL 2) 1/13 8

PLAN VIEW

Approx. Scale: 1" = 50'-0"

BY	SUB	APP	DESCRIPTION	REV	DATE	BY	SUB	APP	DESCRIPTION
EM		REM	DRAFTING CHANGES						
EM		REM	DRAFTING CHANGES						
EM		REM	ADDED SECTION 3						
EM		REM	CONSTRUCTION RECORD DWG.						

Bob

WATER BALANCE

4/24/98

1/2

May 1st 25,000,000 Gallons in A-2

~~10 AC~~ 43560 SF

~~# 1 in × 10 AC × 7.5 GAL / 1 AC × 1 CF / 12 in~~

~~# ___ in × 272,250 GAL~~

	INCHES RAIN	IN A-2 GALLONS	OUT	IN REMAINING 20,000,000
April 30				25,000,000 START
May 31	23	816,750	2,160,000	23,656,750
June 30	89	2,450,250	2,160,000	23,947,000
July 31	89	2,450,250	2,160,000	24,237,250
Aug 31	95	1,361,250	2,160,000	23,438,500
Sept 30	89	2,450,250	2,160,000	23,728,750
Oct 31	68	2,178,000	2,160,000	23,746,750
Nov 30	23	816,750	2,160,000	22,403,500
Dec 31	20	0	2,160,000	20,243,500

NO DISCHARGE

NO RAIN COVER

NO COMPLIANCE W/ 1' DEPTH

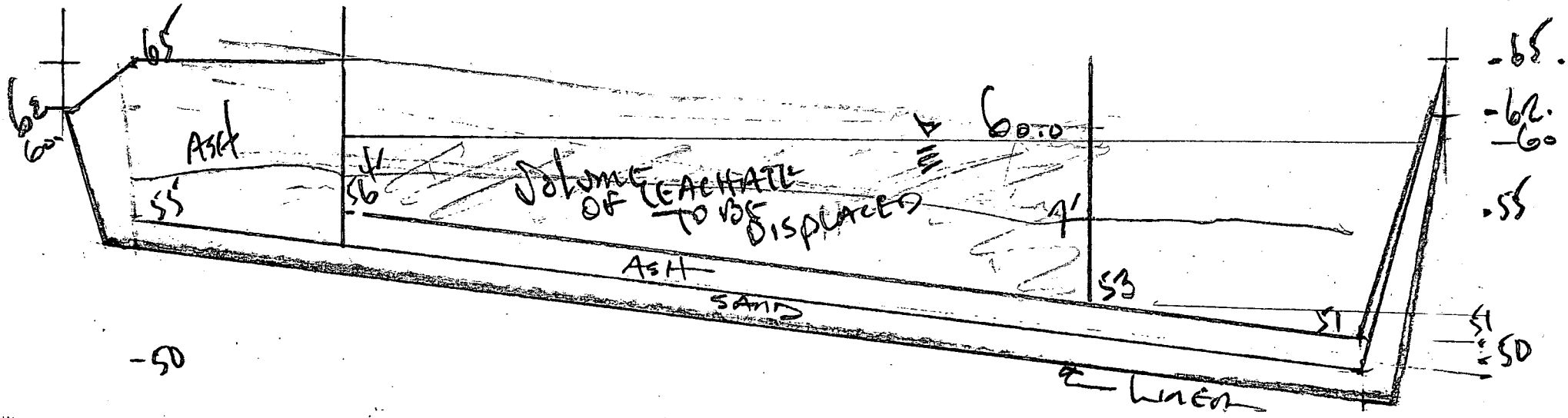
2/2

BASED ON A-1 FILLING IN 6 YR
AND A-2 HAS BEEN
FILLED ALREADY FOR 1.5 YR,

ASSUMPTIONS:

1. ALL ASH DISPOSED INTO A-2
WILL BE PLACED IN LEACHATE
SINCE LEACHATE ELEVATION
DOES NOT SUBSTANTIALLY CHANGE.
2. POROSITY OF ASH IS
.5 .4
3. AREAS 1 THRU 5 TO BE
COVERED WITH GEOMEMBRANE
BY JANUARY 1st, 1999
4. SURFACE AREA OF EXPOSED
TOP OF LEACHATE AT EL 60
35000 + 95000 + 123750 + 8750 + 3500 = 266000 SF
5. AVERAGE DEPTH FOR
EXPOSED TOP OF LEACHATE
(4 + 7) ÷ 2 = 5.5'

⇒ VOLUME OF LEACHATE TO BE DISPLACED
BY DISPOSAL OF ASH IN LEACHATE
5.5' × 266000 SF × 7.5 GALL/CF × .5 = 5,486,250 GALLONS
226250 .6 5,599,687


65
62
60
ASH
55
56
Volume of LEACHATE to be DISPLACED
60.0
4'
ASH
SAND
53
51
LINER
-65
-62
-60
-55
-51
-50
-50

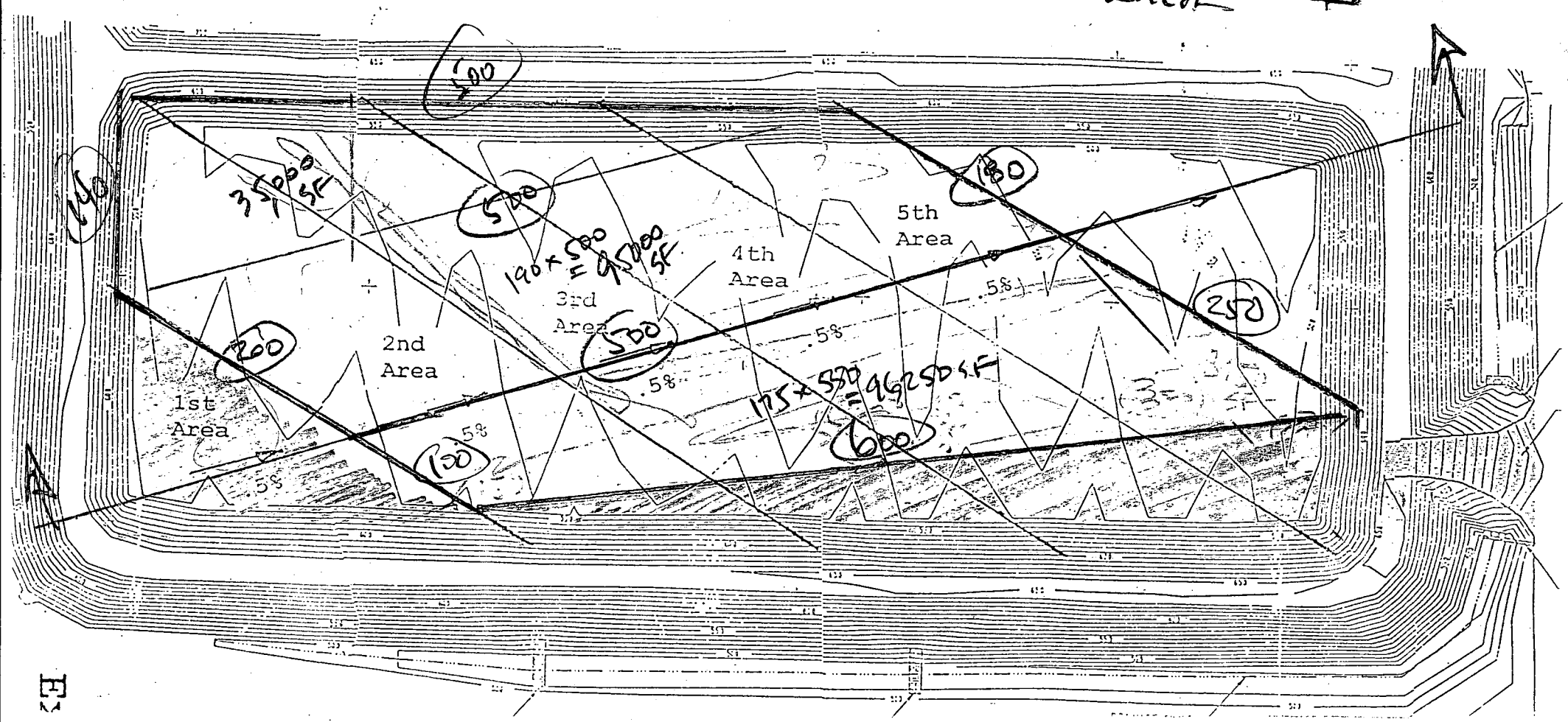

1st Area
2nd Area
3rd Area
4th Area
5th Area
.5%
350000 SF
190 x 500 = 95000 SF
175 x 550 = 96250 SF
100
200
300
500
600
150
250

TABLE 3. 1997 LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF		Leachate Leaving LTRF			Effluent Disposal			Inflow/Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from SELF Pumped to LTRF (gal.)	Total Leach. Hauled From LTRF (gal.)	Leachate Dust Control / Evap. From LTRF (gal.)	Leachate Treated at LTRF (gal.)	Total Eff. Hauled (gal.)	Effluent Dust Control/ Evaporation (gal.)	Effluent Irrigation / Evaporation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Net Change in Storage For Month (gal.)
January	2.43	0	1,892,150	2,006,378	0	0	0	0	10,470	1,892,150	2,006,378	(114,228)
February	1.34	0	1,672,700	1,558,554	0	0	0	0	49,290	1,672,700	1,558,554	114,146
March	2.10	0	1,587,700	1,610,179	196,000	0	0	0	140,080	1,587,700	1,806,179	(218,479)
April	5.46	0	1,647,900	1,534,642	92,000	0	0	0	0	1,647,900	1,626,642	21,258
May	4.23	0	1,931,600	1,794,472	151,000	0	0	0	0	1,931,600	1,945,472	(13,872)
June	7.45	0	2,022,500	1,595,334	77,000	0	0	0	64,000	2,022,500	1,672,334	350,166
July	12.01	0	2,625,400	2,466,447	0	0	0	0	0	2,625,400	2,466,447	158,953
August	4.87	0	2,750,533	2,285,200	15,000	0	0	0	0	2,750,533	2,300,200	450,333
September	13.07	0	2,121,000	1,914,600	35,000	0	0	0	0	2,121,000	1,949,600	171,400
October	5.56	0	2,418,000	2,468,300	35,000	0	0	0	0	2,418,000	2,503,300	(85,300)
November	2.84	0	2,561,000	2,137,200	10,000	0	0	0	0	2,561,000	2,147,200	413,800
December	12.29	0	3,058,850	2,730,800	3,000	0	0	0	0	3,058,850	2,733,800	325,050
YTD Total	73.65	0	26,289,333	24,102,106	614,000	0	0	0	263,840	26,289,333	24,716,106	

f:\project\hillsbor\0995029.23\leachate\97summ.wb2 (Revised, 11/17/97 by BLJ)

Note:

1. If the effluent bypass is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Falukenburg Road Waste Water Treatment Facility until the Leachate Treatment Plant resumes operation.

1997 Year to Date Leachate Tracking Summary
Hernando County Northwest Waste Management Facility

MONTH	RAINFALL INCHES	LEACHATE GALLONS TRANSPORTED
January	2.0	87,000
February	1.7	69,600
March	3.9	87,000
April	5.5	184,500
May	1.7	131,200
June	10.6	207,800
July	7.0	299,700
August	6.1	417,600
September	4.6	87,000
October	11.0	359,600
November	3.4	741,900
December	11.7	570,100
YTD Total	69.2	2,999,400

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

December 19, 1997

Mr. Richard D. Garrity, Ph.D.
Director of District Management
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Subject: **West Pasco Landfill**
Ash Disposal Units A-1 and A-2
Number PA87-23, Pasco County
LAW Project 40141-7-0317

Dear Dr. Garrity:

Law Engineering and Environmental Services, Inc. on behalf of Pasco County is providing the following information as a follow-up to our meeting on December 11, 1997:

Maintenance activities in A-1 - As you recall Pasco County plugged the leachate collection system outfalls from Ash Disposal Unit (A-1) as an emergency measure to avert an overflow from the pump station. The existing valves between the collection system and the manholes will not close completely because they are damaged. The leakage rate is on the order of 110,000 gallons per night and as you know the County has had no place to dispose of this rate of flow. Installing the plug was the only way to stop flows to the manhole and the pump station further downstream. Obviously, the next step was to replace the valves but it could not be done safely without possible spillage of leachate when the valve are removed. It was decided to place the new valves downstream of the manholes and to abandon the damaged ones in an open position. In order to do that it was necessary to raise the manholes to a height sufficient to allow leachate to rise in the manhole to a level equal to the level of leachate in the disposal unit when the new valve was closed. These activities have been completed.

Estimated quantity of leachate in A-1 and A-2 - The quantity of leachate in A-1 is estimated to be 8.6 million gallons based on the geometry of the disposal unit, the elevation of the leachate and a porosity of 0.4 for the drainage sand and the ash. The geometry of the disposal unit was taken from the construction record drawings. The elevation of the leachate was determined by opening an old valve, closing the new valve and allowing the leachate to rise in the raised manhole up to the level in the disposal unit. The elevation of leachate in the unit is 61.25 or approximately two feet below the top of perimeter berm. In regard to the porosity, the ash appears to act as an excessively well drained sand or small gravel so a value of 0.4 for porosity is reasonable.

4919 W. LAUREL STREET • TAMPA, FL 33607
(813) 289-0750 • FAX (813) 289-5474

The quantity of leachate in A-2 is calculated to be 14.3 million gallons. The elevation of leachate in A-2 was estimated by observing the leachate level at the southwest corner of the disposal unit. There is a two feet drainage layer and two feet of ash and the leachate level appeared to be 9 inches deep. Adding these depths to the elevation in this corner from the construction record drawings leads to the estimated elevation of 57.55. Then the area filled with ash above the level of the leachate and the area open or unfilled with ash were estimated. The estimate was 40 % filled and 60 % unfilled. The same porosity was used for the ash and drainage sand as in A-1 and a porosity of 1 was used for the unfilled area.

The total leachate in the two disposal units is approximately 23 million gallons. In addition, the tank at the treatment plant contains approximately 2 million gallons. The calculations are enclosed in a table. The County is constructing a staff gage in A-2 to allow monitoring the leachate level and LAW will provide a calibration to relate level to the estimated quantity in A-2.

Disposal/Pumping Activities - The County hauled 96,000 gallons of leachate to the New Port Richey Wastewater Treatment Plant during the period from December 10 to 18, 1997. The hauling to the Tampa plant is scheduled to begin December 19, 1997. The County is pumping leachate from A-1 to A-2 at a rate of approximately 100,000 gallons per day. The total to date is 320,000 gallons.

Proposed future actions - We believe it is now critical that Florida Department of Environmental Protection allow Pasco County to reinstall the meter and pump at least 30,000 gallons/day to the Shady Hills Wastewater Treatment Plant. We have a potential environmental disaster ready to happen . The cell berms have not been designed or built to withstand ten feet of hydrostatic load. At a hauling/processing rate of 128,000 gallons per day it will take 180 days to lower the leachate level to the one-foot criteria if it does not rain again during that time.

Sincerely,

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

12/19/97 Richard E. Mayer

Richard E. Mayer, P.E.
Principal Engineer

George W. Ellsworth

George W. Ellsworth, P.G.
Senior Hydrogeologist

REM/cjs/40140/LETTER/4014170317.L1

cc: Robert Butera
Kim Ford
Doug Bramlett - Pasco County

WEST PASCO CLASS I LANDFILL

Cell A-1

CELL WIDTH			CELL LENGTH			WATER	CELL BASE ELEVATION					Volume	Filled/	Porosity	Gallons
Base	Top	Avg.	Base	Top	Avg.	LEVEL	NE	SE	SW	NW	Avg.	(cf)	Unfilled		(Millions)
310	370	340	970	1045	1007.5	61.25	50.7	50.3	54.6	55.8	52.85	2877420	1	0.4	8.62

Cell A-2

CELL WIDTH			CELL LENGTH			WATER	CELL BASE ELEVATION					Volume	Filled/	Porosity	Gallons
Base	Top	Avg.	Base	Top	Avg.	LEVEL	NE	SE	SW	NW	Avg.	(cf)	Unfilled		(Millions)
310	355	332.5	955	1050	1002.5	57.55	47	50	52	51	50	2516650.94	0.4	0.4	3.02
													0.6	1	11.31

TOTAL GALLONS (in millions) 22.94

+7 M
ex. 60-57.5 From

= 3 + 11 + 7
= 21,000,000 Gallons

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 24-Apr-1998 01:29pm
From: Allison Amram TPA
AMRAM_A
Dept: Southwest District

Office

Tel No: 813/744-6100, ext. 336

To: Robert Butera TPA (BUTERA_R)
To: William Kutash TPA (KUTASH_W)
To: Kim Ford TPA (FORD_K)
To: Steve Morgan TPA (MORGAN_S)

Subject: W. Pasco leachate

Rick just came down to tell you that Hooker's Point has agreed to take 100,000 gpd of leachate from W. Pasco next week, and 125,000 the following week if all goes well w/ the WWTP's effluent quality. The plant may be able to take as much as 200,000 gpd and meet the effluent limits for salts, but they are currently just below their nickel limit, and will have to see if the leachate affects that.

Rick just wanted me to pass along that news!

Allison

[illegible]

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

Date: 4/24/98

Number of pages including cover sheet: 3

To: Jo Dicken

Times

Phone:

Fax phone: 813 1869 6233

CC:

From: Tom Ford

Phone: (813) 744-6100 x 382

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☑ For your review ☐ Reply ASAP ☐ Please comment

INFO ON W DASCO
AS YOU REQUESTED

CINDY MICK - NORTH PORT
PHONE # 941 - 4269500
FAX # 941 - 4265409

(WE ARE WORKING ON
WATER - BALANCE NUMBERS)

8.2.6 Method and Sequence of Filling Waste

The West Pasco Class I Landfill will be developed using 16 disposal units as shown on Figure 8.1. Each disposal unit is approximately 10 acres. Figure 8.2 depicts the sequencing progression of lifts within a typical disposal unit. As this sheet indicates, the liner and leachate collection system will be constructed one disposal unit at a time with temporary roads and swales for access and surface water management.

Disposal Units SW-1 through SW-8 are currently designated for disposal of solid waste. Disposal Units A-1 through A-6 are currently designated for ash disposal. Depending on future volumes, Disposal Units I-1 and I-2 may be used for either ash or solid waste. The ash and solid waste will not be co-disposed. The ash residue will be monofilled, no mixing of the two materials will be allowed.

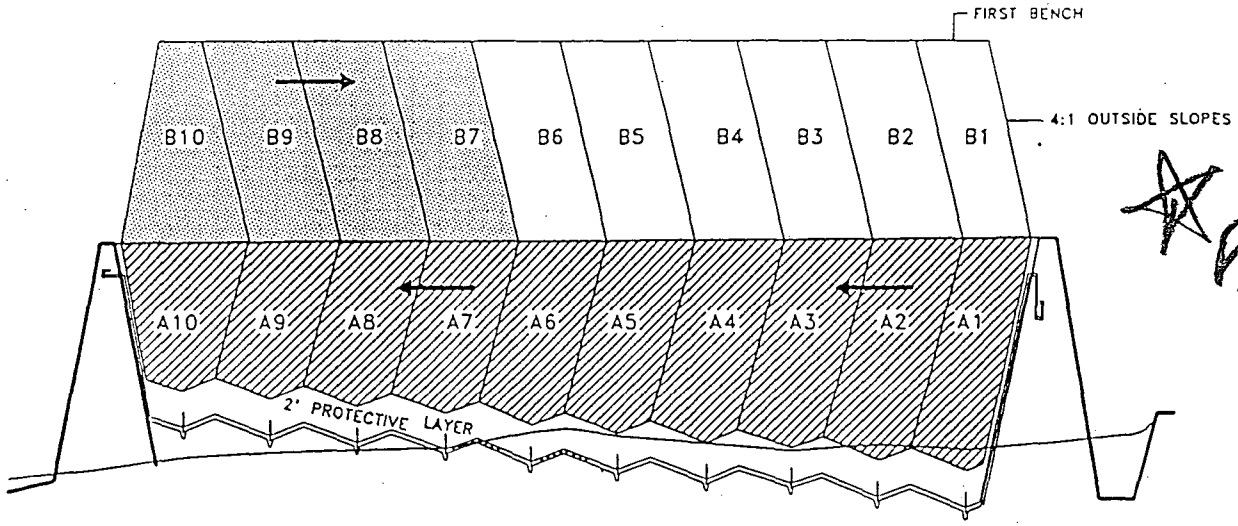
The method of filling wastes in a individual disposal unit is described as follows. The edge of liner at the top of berm will be flagged or marked with traffic cones except at berms common between the new operating disposal unit and the adjacent filled disposal unit. Ash/solid waste will not be placed within ten feet of this flagged or marked line. All incoming ash/solid waste will be directed to the working face. Berms will be maintained around the entire working disposal area to intercept and contain leachates and divert stormwater to the surface water management system. See Figure 8.3. Ash/solid waste will be placed against the side slope of the previous day's refuse. The first row will act as a guide for the placement of refuse for the remaining rows. In each row, disposal units will be constructed having a minimum length working face to control the operation and leachate quantities, yet of sufficient length to provide adequate dumping areas and room for the landfill equipment to operate (Figure 8.3). A slope of 3 to 1 on a 50-foot wide working face will provide for centralization of operations, while providing maneuvering area for large private and commercial vehicles unloaded each day.

The sequence of filling future lined disposal unit areas with installed leachate collection systems is developed to meet the following objectives.

- Complete subsequent lifts over lower lifts frequent enough to minimize infiltration and conserve the field capacity of the lower lift disposal unit.
- Direct the surface runoff from unused portions of disposal units away from ash/solid waste using control valves and berms.
- Design landfill slopes during operation to maximize surface runoff away from the working face and minimize leachate generation.
- Provide bench terraces along side slopes to minimize erosion.

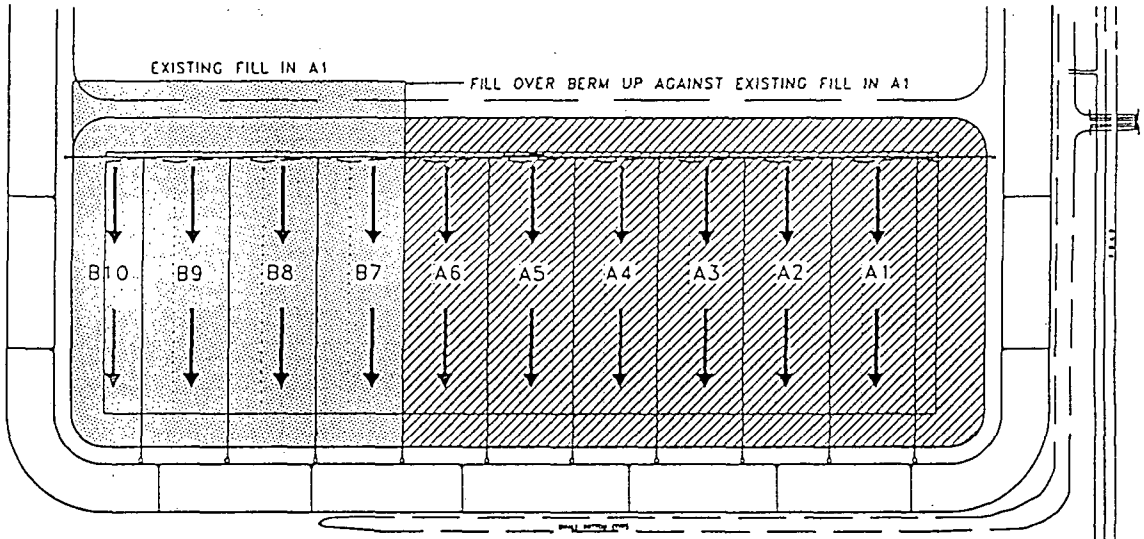
Efficient use of these techniques will reduce the need for intermediate cover, and decrease leachate volumes.

Final cover will be applied over disposal unit lifts within 180 days after the final lift over an area is completed. Final cover will consist of a 18 inches of clayey material covered with 6 inches of native soils. The top six inches will be uncompacted and vegetated with native grasses or other vegetation to promote evapotranspiration. See Figure 8.4.



Fill to top of Berm from East only

CROSS-SECTION CELL A-2



CROSS-SECTION CELL A-2

LEGEND

LIFT A

LIFT B

FILL DIRECTION

N

Not To Scale

Prepared/Date:
Checked/Date:

ACAD=48356582

Pasco County
Board of County Commissioners
Utility Services Branch
Pasco County, Florida

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

Resource Recovery Facility
Pasco County, Florida

Lift Sequence Schematic

Project 464-83565.01

Figure 8.2

Transmit Confirmation Report

No.	:	008
Receiver	:	818138696233
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Apr 24 98 9:49
Time	:	02'00
Mode	:	Norm
Pages	:	03
Result	:	OK

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

Date: 4/23/98

Number of pages including cover sheet: 1

To: Bo Decker
Pasco Times

Phone:

Fax phone: 813-869-6233

CC:

From: Bob Butera

Phone: (813) 744-6100 x451

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

THE OPERATIONAL PLAN REFERENCED DRAWINGS THAT WERE NOT AVAILABLE TO COPY TO REDUCED SIZE FOR FAXING. I WILL HAVE KIM SEND TO YOU AM.

Bob
Butera

Transmit Confirmation Report

No.	:	006
Receiver	:	818138696233
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Apr 24 98 9:38
Time	:	00'36
Mode	:	Norm
Pages	:	01
Result	:	OK

Bob
STEVE
4/22/98

INTEROFFICE MEMORANDUM

Date: 21-Apr-1998 02:53pm
From: Chris McGuire TAL
MCGUIRE_C@A1@DER
Dept: Office General Counsel
Tel No: 850/488-9730

To: Kim Ford TPA (FORD_K@A1@TPA1)
To: James Bottone TAL (BOTTONE_J@A1@DER)
To: Henry Dominick TPA (DOMINICK_H@A1@TPA1)

Subject: Pasco Emergency Order

Larry Morgan says someone e-mailed him a copy of an Emergency Order for Pasco County last week. Is anything happening with this that OGC should know about? If so, Larry asks that he not be involved in this unless it turns into an enforcement action. Jennifer Fitzwater and I will be reviewing any emergency order stuff, if that is how we end up going.

Thanx.

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 16-Apr-1998 10:03am
From: Steve Morgan TPA
MORGAN_S
Dept: Southwest District

Office

Tel No: 813/744-6100 ext.385

To: David Thulman TAL (THULMAN_D @ EPIC6A1 @ EPIC9)
CC: Richard Garrity TPA (GARRITY_R)
CC: William Kutash TPA (KUTASH_W)
CC: Robert Butera TPA (BUTERA_R)
CC: Kim Ford TPA (FORD_K)

Subject: Draft Emergency Final Order - Pasco Co.

David:

Please review and comment on this as soon as possible. We need to get them moving on this before it starts to rain again. We are also getting ready to be questioned by the St. Pete Times on the issue and would like to be able to tell them the direction we are heading.

Note my Comments for 4/14/98

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY FINAL ORDER FOR THE TRANSPORT AND DISCHARGE OF ASH LEACHATE FROM THE PASCO COUNTY RESOURCE RECOVERY FACILITY

CASE NO. 98-

EMERGENCY FINAL ORDER

Under Section 120.569(2)(l) of the Florida statutes, the State of Florida Department of Environmental Protection (Department) enters the following Emergency Final Order, including findings of fact and conclusions of law in response to excessive leachate impoundment in ash disposal units at the Pasco County (Pasco) Resource Recovery Facility(RRF) resulting from improper operation of their ash disposal units, a shutdown of their leachate treatment plant in June 1997 due to design and operational problems, and complications due to extremely high levels of rainfall which occurred in Pasco County during December 1997 through February 1998.

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code(F.A.C.).

FINDINGS OF FACT

1. The Pasco RRF is located on Hays Road, North of S.R. 52 in Spring Hill, Florida. Pasco operates a solid waste incinerator and various solid waste management facilities at the site. The incinerator ash is disposed of on-site in lined disposal units with leachate collection and removal systems. The

ash leachate water is removed to a 2,000,000 gallon on-site leachate storage tank, then sent to an on-site leachate treatment plant, and the resulting treated water used as process water at the resource recovery facility.

2. In violation of site certification conditions, incinerator ash was placed, in early 1997, throughout the entire 10 acre unit referred to as disposal unit A-2, subjecting all stormwater which fell within A-2 to come in contact with ash and thus become leachate. The ash leachate contains high concentrations of chlorides, dissolved salts, metals, and ammonia. In June 1997, design and operational problems caused the shutdown of the on-site leachate treatment plant resulting in the inability to treat and remove generated leachate. Pasco attempted to send the untreated ash leachate to several County wastewater treatment plant, however the high chloride content of the leachate caused temporary upsets of those plants. Pasco continued to accumulated leachate in the storage tank, which with the typical summer rains quickly was filled to capacity, and then ceased removal of leachate from the ash disposal units. With the treatment plant shutdown and no effective alternate method for leachate treatment and removal, the ash disposal units were impounded with several feet of leachate by November 1997.

3. During December 1997 through February 1998, the west central region of Florida was inundated by rainfall which surpassed previous historical records. Pasco County recorded 43.08 total inches of rainfall for the three month period.

4. On December 23, 1997, the United States Small Business Administration declared the west central Florida area a disaster area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

5. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

6. The Department finds that this accumulation of rainfall has created a state of emergency at the Pasco RRF. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. In addition, Pasco, to date has been unable to restore the leachate treatment plant to full operation. As of March 20, 1998, the ash disposal units have become impounded to within 28 inches of the top of the liner and the facility had approximately 35 million gallons of ash leachate impounded in the disposal units. This has created a condition which has the potential to cause an overtopping of the top of the liner and the perimeter berms at the top of the liner of the disposal units or a catastrophic breach in the berms,and thus an uncontrolled release of large amounts of ash leachate water from the ash disposal units if normal rainfall is received in the coming summer rainy season. This accumulation of leachate has also created a condition in

which the integrity of the liners of the ash disposal units are potentially at risk due to increased depth of water on the liner.

7. An overtopping or a catastrophic breach of the containment system could result in an uncontrolled release of untreated ash leachate water to the site stormwater management ponds, which are located in an area of highly permeable soils which recharge the Floridan Aquifer. The effects of such an event would be contamination of the Upper Florida Aquifer System with high concentrations of chlorides and dissolved metal salts, with the potential for degrading the potability of a primary water supply source for the Tampa Bay Region. In addition, in the case of discharge to surface water, the high ammonia concentrations would be toxic to freshwater organisms. A loss in intergrity of the liners of the ash disposal units would resulting in a direct discharge of untreated ash leachate water to the Floridan Aquifer, with the same environmental impacts as noted above.

8. Substantial hauling of leachate to a more appropriate discharge point would allow for a controlled release and appropriate treatment of the excess ash leachate water and would alleviate the emergency situation.

9. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm to the environment exists at this facility and emergency measures to relieve such conditions must be taken to restore the ash disposal units to a safe operating status.

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the combination of design and operational problems and extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

1. Pasco shall conduct all ash leachate transport, discharge, monitoring, and reporting requirements in accordance with the terms and conditions of this order.

2. Pasco shall immediately insure that, at a minimum, at least 72,000 gallons per day of ash leachate water are transported and discharged to the City of Tampa Wastewater Treatment Plant, and within 30 days, arrange for the transport and discharge ash leachate water at the rate of an average of 300,000 gallons per day (a weekly total of at least 2.1 million gallons) to Department approved treatment or discharge sources. This rate of hauling shall commence from the effective date of this Order and continue for until Pasco has reduced the depth of leachate over the primary liner of both disposal units A-1 and A-2 to less than 1 foot.

3. Pasco shall continue to remove leachate from each disposal unit's leak detection system and initially from ash disposal unit A-2 until such time as the elevation of leachate in unit A-2 is maintained at or below 50 feet NGVD. Removal from A-2 shall continue as needed to maintain the leachate level at 50 feet NGVD or below in unit A-2. After this initial goal is met, Pasco shall commence with removal of the impounded leachate in unit A-1 and shall continue removal of impounded leachate from both disposal units until the depth of leachate over the primary liner of both disposal units A-1 and A-2 is reduced to less than 1 foot.

4. Within 60 days of the effective date of this Order, Pasco shall complete corrective actions on the on-site leachate treatment plant such that it has the capacity to treat at least 35,000 GPD, and provide the Department with documentation of a contingency plan for alternate treatment or disposal of at least 35,000 GPD in the case of future on-site leachate treatment plant failure. As an alternative, Pasco may provide the Department with documentation within 60 days of the effective date of this order, of a permanent (for a least 2 years) contract with an alternate, Department approved source for the treatment or discharge of 35,000 GPD of leachate.

Is this 35,000 gpd in addition to the 300,000 gpd?

5. Upon leachate levels in unit A-2 reaching each of the elevations noted in the attached sketch(Exhibit A) and the following schedule:

Grading and Covering Schedule

When leachate is initially at or below	Start regrading and covering of area
Elevation 55 NGVD	1st Area
Elevation 54 NGVD	2nd Area
Elevation 53 NGVD	3rd Area
Elevation 52 NGVD	4th Area
Elevation 51 NGVD	5th Area

Pasco shall commence with regrading, berm construction and covering of each resulting exposed area of unit A-2 and complete the regrading, berm construction, and covering of each area within 10 days of commencement. The regrading of each exposed area shall be accomplished by relocating the existing ash within the exposed area without disturbing the existing sand cover over the bottom liner and can be supplemented with new ash if it is available. As part of regrading, Pasco shall remove metal objects from the ash which may compromise the intergrity of the cover. The covering shall be accomplished by the installation of a geomembrane cover to prevent further stormwater infiltration into the ash, designed to collect stormwater on top of the cover and pump the stormwater into on site retention ponds. Pasco shall notify the Department by facimile as noted in paragraph 7 below, within 24 hours of commencement and completion of regrading and covering of each area.

6. Pasco County shall operate this leachate disposal plan ~~operation~~ in a manner which insures that the leachate discharged shall receive the treatment necessary and be discharged in such a manner as to minimize impacts to the environment. Should any natural resource damage occur, Pasco County shall be liable for damages under Section 376.121, Florida Statutes.

7. Pasco County shall submit a weekly progress report by facsimile as noted below. The report shall also include the daily quantity of leachate removed, transported and discharged, or treated on-site and off-site, and the daily elevation of leachate in units A-1 and A-2. ~~The~~ This report is to be sent to the Department's Southwest District Office at fax number 813/744-6125.

8. The Department issues this Emergency Final Order solely to address the emergency created by design and operational problems and extreme weather conditions previously described. This Order does not authorize any activity other than that which is specifically outlined above. This Order does not settle any enforcement actions the Department has taken or will take in the future relative to the actions of Pasco County prior to the issuance of this Order or subsequent to this Order.

These reporting requirements shall continue for the duration of this order.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental Protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which they party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS ____day of _____,1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

Attachment: Exhibit A

Bob
CHANGES FOR PROBLEM SOLVING summary
4/9/98

Date: 1/22/98 11:25:35 AM
From: Robert Butera TPA
Subject: Topic for Rick's Meeting for the Secretary - Solid Waste

Pasco County Landfill - Substantial lack of compliance at the West Pasco Class I Landfill (Cells A-1, A-2) ~~and SW-1.~~

Pasco County opened 10 acres of landfill area (an area that was segmented in thirds) such that rainfall accumulating on segments, not disposed in, should have been treated as stormwater. The County disposed in all zones thereby subjecting the whole area to leachate prior to requesting approval from the Department. This process was implemented and not approved by the Department. The Department strongly advised against such action, however the county insisted that the new Leachate Treatment Plant could handle all leachate generated.

The new Leachate Treatment Plant permit issued in 1996 required construction completion by March 1, 1997. The Leachate Treatment Plant was shut down in June of 1997 due to significant operational problems and has not been used consistently since then.

Due to the ongoing rainfall and ~~significant~~ 25 noncompliance issues the open ash disposal cell (A-2) has ~~over 20~~,000,000 gallons of leachate. The leachate head on the liner exceeds the maximum one foot depth as required by the Department's Solid Waste Rule (F.S. 62-701). Leakage rates increase exponentially with head over the liner. The current head appears to be 13 feet.

and closed ash disposal cell (A-1) has 10,000,000 gallons of leachate.

Pasco County is currently hauling ~~50~~ 72,000 gallons of leachate per day to ~~two~~ Tampa's WWTP~~s~~. At this rate of hauling the landfill could be out of compliance for years due to additional rainfall and inadequate quantities of leachate being hauled. Pasco County has refused to haul leachate long distances which is routinely practiced at other solid waste facilities in their efforts to be in compliance.

~~This only addresses the most significant violation at the site. There are others including impounded leachate in Cell SW-1.~~

~~I can provide for Rick supporting documentation such as an inspection report, Rick's letter to John Gallagher, etc.~~

SOLID WASTE ROUTING **DATE:** 4-9-98

Allison Amram []
Kim Ford — Kim review. memo to Rly Spon left in file. make a copy and edit/add [] [1] Problem Solving and (2) each Program Manager by the Due date [* i.e. Pasco City leachate would be both for Solid Wast need short # for each
Steve Morgan []
Danielle Nichols []
Susan Pelz []

DEPOSITION AFTER REVIEW

FILE [] **BOB BUTERA** []

As a result of meetings the past few days there are some assignments that I need to make. Each will have its own due date which Sandra will track.

1. Problem Solving issues:

a. Cece will be getting with Mike and Bob S and Mac to follow up on the Problem Solving issue 97-J12, high bacterial counts in the Hills River cause the river to be unavailable for normal beneficial uses. We need a plan of how to approach this by 5/15/98.

b. Cece will also be getting with Mike , Bob , and mac re 97 J13, Sinkholes in Sulfur Springs area. Plan of approach due by 5/15/98.

c. Cece will be writing up the Medfly negotiations and subsequent MOU as a Problem Solving effort and its success to date.

d. In addition to above , each PA will select an environmental issue of importance and run with it as a Problem Solving effort. I want to give final approval of each topic. Topics will follow the 4 tier approach. Use Cece as a consultant of how to do this. Topics due to me on 5/15/98

2. Cece will get with Mollie to privide a list of "Hot Topics" in our District that are of such interest that they can be loaded on the Intranet and be read by DEP staff. Program Administrators will provide Cece with one or more topics and writeups by 5/15/98.

3. Sandra, please send Paul Wagner (Cece has address) a copy of latest Brownfield draft rule.

Thanks all for your cooperation.

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date: 4/9/98

Number of pages including cover sheet: 2

To: Vince Mannella
Pasco County

Phone: 813 856 0119
Fax phone: 813 856 0007
CC:

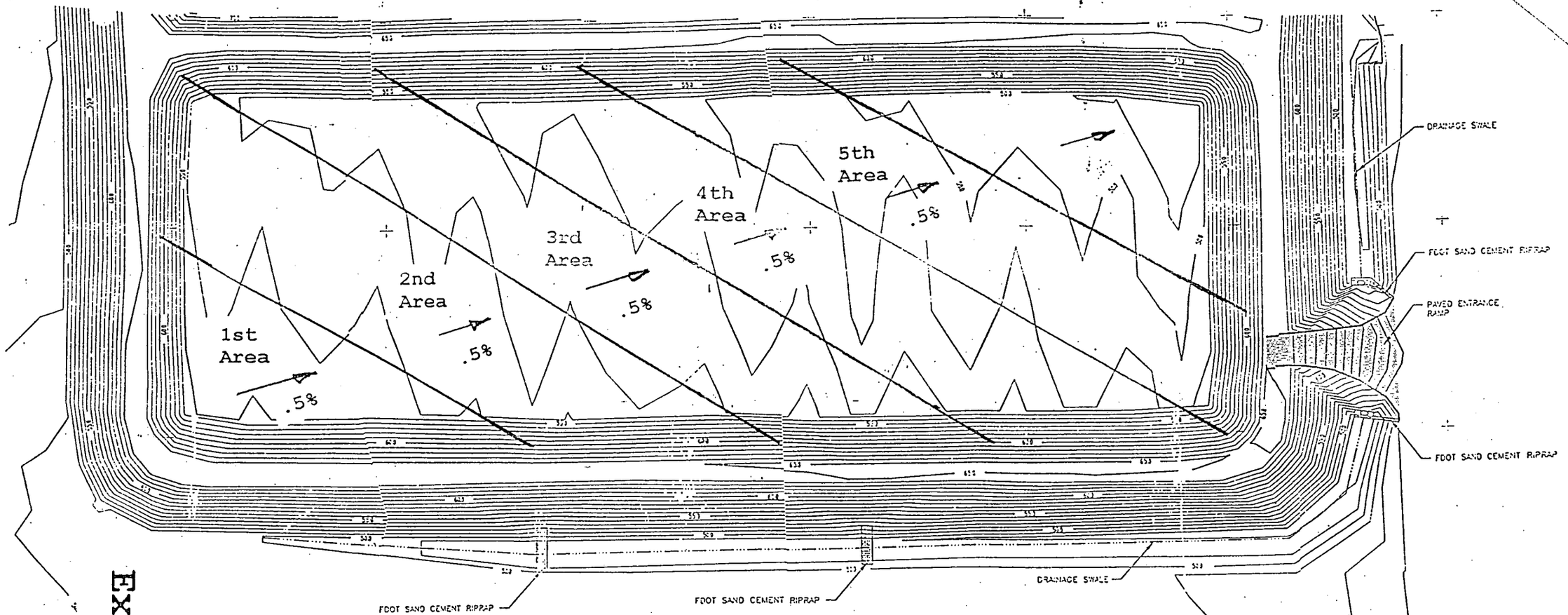
From: Kim Ford

Phone: (813) 744-6100 x 382
Fax phone: (813) 744-6125

REMARKS: ☑ Urgent ☑ For your review ☐ Reply ASAP ☐ Please comment

Vince
In response to your 3/25/98 in which you express your confusion over covering A2, here is our most recent exhibit for clarification. If you still don't understand you may call to set up a meeting at our office with you and your consultant

Kim



Covering Schedule:

Start 1st @ El. 55,		Finish 1st @ El. 54	
"	2nd @ El. 54,	"	2nd @ El. 53
"	3rd @ El. 53,	"	3rd @ El. 52
"	4th @ El. 52,	"	4th @ El. 51
"	5th @ El. 51,	"	5th @ El. 50

"1st thru 5th" are the areas to be covered. "El." is the elevation of leachate in the unit at the time of cover installation.

SCALE
50 0 50 100 FEET

RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY FLORIDA

Exhibit A

Transmit Confirmation Report

No.	:	019
Receiver	:	818138560007
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Apr 08 98 10:24
Time	:	01'37
Mode	:	Norm
Pages	:	02
Result	:	OK

PASCO COUNTY, FLORIDA

DADE CITY (352) 521-4274
LAND O' LAKES (813) 996-7341
NEW PORT RICHEY (813) 856-0119
FAX (813) 856-0007

PASCO COUNTY SOLID WASTE
RESOURCE RECOVERY FACILITY
14230 HAYS ROAD
SPRING HILL, FL 34610

RECEIVED
APR 0 2 1998
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

March 25, 1998

Mr. Kim Ford, P.E. I
Division of Waste Management
Florida Department of
Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

RE: Cover for Ash Disposal Unit A-2

Dear Mr. Ford:

I am writing to request clarification on certain matter of our conference call of March 25, 1998. At the conclusion of our March 12, 1998 meeting I thought I understood the procedure that we agreed on for installing the Cover on A-2.

The conference call has me completely confused, therefore I am once again requesting written instruction on this matter. Until I receive written instruction to the recent changes proposed, Pasco County shall continue to proceed in the covering on A-2 as per our March 12, 1998 meeting agreement.

Very truly yours,

Vincent Mannella, P.E.
Solid Waste Facility Manager

VM/drc

cc: Robert J. Butera, P.E. III, Division of Waste Management, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, FL 33619-8318
Richard D. Garrity, Ph.D., Director of District Management, FDEP, Tampa, FL
Richard E. Mayer, P.E., Principal Environmental Engineer, Law Engineering and Environmental Services, 4919 West Laurel Street, Tampa, FL 33507
John J. Gallagher, County Administator
Douglas S. Bramlett, Assistant County Administrator (Utilities Services)
Ronald J. Walker, Solid Waste Superintendent

INTEROFFICE MEMORANDUM

Date: 01-Apr-1998 08:31pm
From: Richard Garrity TPA
GARRITY_R
Dept: Southwest District Office
Tel No: 813/744-6100 Ext. 352

To: Robert Butera TPA (BUTERA_R)
CC: Joe Squitieri TPA (SQUITIERI_J)
CC: Kim Ford TPA (FORD_K)
CC: William Kutash TPA (KUTASH_W)

Subject: RE: Leachate increase to City of Tampa WWTP from Pasco County

Thanks all for working together on this!!

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 01-Apr-1998 11:40am
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District

Office

Tel No: 813/744-6100

To: Joe Squitieri TPA (SQUITIERI_J)
CC: Richard Garrity TPA (GARRITY_R)
CC: Kim Ford TPA (FORD_K)
CC: William Kutash TPA (KUTASH_W)

Subject: Leachate increase to City of Tampa WWTP from Pasco County

Vince Manella (Pasco County) called to inform me that the city has agreed to increase the leachate accepted from Pasco County from 60,000 gpd to 72,000 gpd. This is a long way from the 300,000 gpd they should haul. The City agreed to review sampling results in a month to evaluate increased acceptance in the future.

I want to thank you Joe for your assistance to date. Hopefully you will be able to assist Solid Waste by contacting the city relating to future increases of the leachate after your approval of their sampling results.

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 01-Apr-1998 10:37am
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District

Office

Tel No: 813/744-6100

To: Kim Ford TPA (FORD_K)

Subject: FWD: Re: FWD: FPC Anclote -- Pasco Leachate

FYI

INTEROFFICE MEMORANDUM

Date: 01-Apr-1998 08:11am
From: William Kutash TPA
KUTASH_W
Dept: Southwest District
Tel No: 813/744-6100 ext 353

Office

Subject: Re: FWD: FPC Anclote -- Pasco Leachate

Lets get together and talk about the leachate groundwater disposal option-- We have several concerns with this proposal that seem to be "fatal flaws" which would eliminate this proposal from further consideration but need to understand how some of these concerns are addressed via Water Fac permitting process. We need to come to a clear internal opinion as to the viability of this option before we ask FPC or Pasco for additional information.

If it's not viable, we need to so indicate to Pasco as quickly as possible so they can move ahead with development of alternate proposals.

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 01-Apr-1998 10:38am
From: Robert Butera TPA
BUTERA_R
Dept: Southwest District

Office

Tel No: 813/744-6100

To: Kim Ford TPA (FORD_K)

Subject: FWD: FPC Anclote -- Pasco Leachate

FYI

INTEROFFICE MEMORANDUM

Date: 31-Mar-1998 05:51pm
From: Henry Dominick TPA
DOMINICK_H
Dept: Southwest District
Tel No: 542-6100 Ext. 404

Office

Subject: FWD: FPC Anclote -- Pasco Leachate

You are aware that Florida Power Corporation has declined to allow disposal of ash leachate to the Anclote Plant cooling water system with subsequent surface water discharge.

As the ground water disposal request remains active, the Water Facilities geologist has evaluated that proposal and prepared the attached comments. There are some concerns involving the potential contamination of surface waters that need to be resolved prior to issuance of an Emergency Order. In your summary letter to the County, please ask them to address these incompleteness items.

Contact us when you need us.

INTEROFFICE MEMORANDUM

Date: 30-Mar-1998 04:33pm
From: Joseph May TPA
MAY_J
Dept: Southwest District
Office
Tel No: 813/744-6100 x 342

Subject: FPC Anclote -- Pasco Leachate

Henry,

Here is my review that you requested -- I'll drop the hard copy off in a bit.

Thanks,

Joe

State of Florida
Department of Environmental Protection – Southwest District Office

Interoffice Memorandum

TO: Henry Dominick, P.E., Program Manager
Industrial Wastewater

FROM: Joseph R. May, P.G., Environmental Supervisor
Technical Services – Ground Water

DATE: March 30, 1998

SUBJECT: **FPC — Anclote River PP**
Facility No. FL0002992
Proposed Discharge of Ash Pond Leachate

GENERAL

The Pasco County Resource Recovery Facility has accumulated ~30 MG of leachate within cells of the landfill. The facility does not have the capability to dispose of this volume since the County has allowed this volume to vastly exceed the facility's ability to dispose of this waste. Waste Management has worked with the County with several ideas to dispose of this leachate off-site—since disposal to the land surrounding the landfill would likely cause ground water violations at the edge of any permissible ZOD. The leachate can generally be characterized by: extremely high TDS (> 50,000 mg/L), metals, high ammonia, and high salinity. Water Facilities was requested to render assistance to Waste Management in order to alleviate the immediate threat to the environment.

An option that has been under review in Water Facilities has been disposal of the leachate *via* trucking to the FPC Anclote Power Plant. A meeting between Technical Services and a consulting firm (*i.e.*, AT&E) was held on 20 February to discuss potential disposal options. Initially, discharge to a rapid rate infiltration basin (RRIB) was discussed since that was the idea brought to the Department. At that time I noted that it was my opinion that we would need reasonable assurances that the RRIB—which directly abuts the Gulf of Mexico near the mouth of the Anclote River (see attachment)—would not provide for a direct discharge of ground water to the adjacent surface water, in violation of F.A.C. Whether disposal of 200,000–300,000 gpd of the extremely high TDS leachate would mound to the surface, directly discharge to the Gulf of Mexico, or travel vertically downwards until within the Floridan Aquifer system was debated. Several points were subsequently discussed—the ground water issues will be discussed in more detail below since the 6 March letter reiterates the AT&E opinions brought to the February meeting. It should be noted that the consultants arrived at the meeting with the understanding that the Department had already indicated that disposal of 200,000 gpd to the RRIB would be approved. The origination of this misunderstanding appears to have manifested itself after several meetings between various staff as potential solutions were discussed.

At the time of the 20 February meeting, Technical Services recommended that surface water discharge be investigated. Since the FPC disposes of 700-2800 MGD of cooling water it was our opinion that the amount of dilution would be exponentially more advantageous than that of ground water disposal—given the < 100,000 gpd permitted ground water discharge to the RRIB. It should be noted that the permit and ground water monitoring plan were written with this small volume as an important criteria. The mouth of the Anclote River, two public beaches, marine life populations, flora, and recreational sports occur in close proximity to this RRIB.

(over)

Any disposal of leachate to this facility will likely entail several tanker truck deliveries on a daily basis for several months. Therefore, attention to leachate quality as well as power plant production will also be required to be closely monitored.

At the time of the 20 February meeting, the Department required the County to dispose of ~200,000 gpd in order to meet a 1 June deadline (*i.e.*, regain stormwater control of the landfill prior to the onset of the wet season). However, it is now my understanding that the disposal figure has been revised upward to ~300,000 gpd due to additional stormwater collection and contamination. It is also my understanding that the Department will assist the FPC in apprising the public of the circumstance and reasonable assurances any resulting emergency solution. Until 27 March—all Water Facilities efforts were directed at surface water discharge with cooling water dilution.

REVIEW & RECOMMENDATIONS

Leachate quality and variability has been more than adequately addressed by Charles Kovach (TS–SW). Essentially, the ammonia toxicity and potential for metals to accumulate in the canal sediments are the primary concerns. For more detailed discussion and recommendation, please refer to the appropriate Surface Water technical documentation.

I have the following incompleteness items with regard to the 6 March letter:

- There has been no documentation provided to either AT&E or the Department as to the application capacity of the RRIB. The RRIB appears to have a substantial footprint and is rectangular—however, a mounding analysis or documentation of previous performance is required for reasonable assurance that the mound will not occur to the surface or the adjacent surface waters.

- AT&E provided a discussion of the potential for a dense fluid (*i.e.*, inferring the potential performance of the leachate). The references provided are accepted for fluid flows or applications in natural systems. It is my opinion that the discharge of 300,000 gpd to a RRIB is not likely to perform similarly to a natural system. A substantial volume of leachate is proposed to be discharged and will be required to move away in a matter of hours—not weeks as the time frames inferred by the references. Additionally, no references were supplied which indicated that that the leachate would behave as a DNAPL. Since the leachate is an aqueous phase liquid, it would appear that a major assumption has not been met in this portion of the analysis. Further analysis should be provided to indicate that the volume and density of the leachate application rate will not exceed the underlying aquifer system's ability to assimilate the load.

- The pond sediments may contain heavy metals *in situ*. The records of application and materials which have been applied to the pond are not clear. The potential for mobilization of contaminants that may be present in the sediments should be addressed.

Should reasonable assurances not be provided that there would be no direct discharge to the adjacent surface waters—or violation of the free from criteria—then the RRIB proposal should be addressed under the surface water rule, 62-302, F.A.C.

Should you have any questions, please contact me at extension 342.

cc: Mike Hickey, WFA
Charles Kovach, TS–SW
Bill Kutash, MA


Gulf
of
Mexico
RRIB
Discharge Canal
Canal
Intake
FPC Anclote PP
FL0002992
N
0 500 1000 Feet
FLORIDA

State of Florida
Department of Environmental Protection – Southwest District Office

Interoffice Memorandum

TO: Henry Dominick, P.E., Program Manager
Industrial Wastewater

FROM: Joseph R. May, P.G., Environmental Supervisor
Technical Services – Ground Water

DATE: March 30, 1998

SUBJECT: **FPC — Anclote River PP**
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Any disposal of leachate to this facility will likely entail several tanker truck deliveries on a daily basis for several months. Therefore, attention to leachate quality as well as power plant production will also be required to be closely monitored.

(over)

At the time of the 20 February meeting, the Department required the County to dispose of ~200,000 gpd in order to meet a 1 June deadline (*i.e.*, regain stormwater control of the landfill prior to the onset of the wet season). However, it is now my understanding that the disposal figure has been revised upward to ~300,000 gpd due to additional stormwater collection and contamination. It is also my understanding that the Department will assist the FPC in apprising the public of the circumstance and reasonable assurances any resulting emergency solution. Until 27 March—all Water Facilities efforts were directed at surface water discharge with cooling water dilution.

REVIEW & RECOMMENDATIONS

Leachate quality and variability has been more than adequately addressed by Charles Kovach (TS–SW). Essentially, the ammonia toxicity and potential for metals to accumulate in the canal sediments are the primary concerns. For more detailed discussion and recommendation, please refer to the appropriate Surface Water technical documentation.

I have the following incompleteness items with regard to the 6 March letter:

- There has been no documentation provided to either AT&E or the Department as to the application capacity of the RRIB. The RRIB appears to have a substantial footprint and is rectangular—however, a mounding analysis or documentation of previous performance is required for reasonable assurance that the mound will not occur to the surface or the adjacent surface waters.

- AT&E provided a discussion of the potential for a dense fluid (*i.e.*, inferring the potential performance of the leachate). The references provided are accepted for fluid flows or applications in natural systems. It is my opinion that the discharge of 300,000 gpd to a RRIB is not likely to perform similarly to a natural system. A substantial volume of leachate is proposed to be discharged and will be required to move away in a matter of hours—not weeks as the time frames inferred by the references. Additionally, no references were supplied which indicated that that the leachate would behave as a DNAPL. Since the leachate is an aqueous phase liquid, it would appear that a major assumption has not been met in this portion of the analysis. Further analysis should be provided to indicate that the volume and density of the leachate application rate will not exceed the underlying aquifer system's ability to assimilate the load.

- The pond sediments may contain heavy metals *in situ*. The records of application and materials which have been applied to the pond are not clear. The potential for mobilization of contaminants that may be present in the sediments should be addressed.

Should reasonable assurances not be provided that there would be no direct discharge to the adjacent surface waters—or violation of the free from criteria—then the RRIB proposal should be addressed under the surface water rule, 62-302, F.A.C.

Should you have any questions, please contact me at extension 342.

cc: Mike Hickey, WFA
Charles Kovach, TS–SW
Bill Kutash, MA

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3-27-98

Subject PASCO LEACHATE —

Time 11:40

Permit No.

County

MR. JOHN DAILY

Telephone No. —

Representing CITY OF TAMPA WWTP.

[X] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

MR. DAILY INFORMED ME THAT ANY INCREASE IN THE QUANTITY OF LEACHATE ACCEPTED FROM PASCO COUNTY WOULD HAVE TO BE APPROVED BY DAVE PRICHARD. JOHN DID NOT WANT TO ADDRESS THIS ISSUE WITH DAVE BUT SUGGESTED THAT PETE BURGHARDT CONTACT DAVE PRICHARD ON THIS ISSUE. JOHN SAID THE PRIMARY CONCERN IS POTENTIAL PROBLEMS/CORROSION OF EQUIPMENT/PIPING @ THAT FACILITY.

(continue on another sheet, if necessary)

Signature Robert J. Sutton

Title P.E. III

PA-01
1/93
hjs

ILP

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3-27-98

Subject Pasco Leachate

Time 9:45 A.M.

Permit No. —

County Pasco

Mr. Sam Nerwe

Telephone No. 247-3451

Representing City of Tampa WWTP

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

Neither John Daley or Dave Pritchard were available to discuss the max. quantity of leachate they could accept from Pasco County. I discussed briefly the potential of additional leachate w/ him. He would brief John & Dave and get back to me this afternoon when they will be available.

(continue on another sheet, if necessary)

Signature Robert J. Arthur

Title P.E. III

PA-01
1/93
hjs

RF

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3-27-98

Subject PASCO LEACHATE

Time 9:30 A.M.

Permit No. —

County PASCO

MR. DOUG BRAMLETT

Telephone No. 813-847-8145

Representing PASCO COUNTY

[ ] Phoned Me [X] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

CALLED TO REQUEST A COPY OF THE CONTRACT (DRAFT) BETWEEN FPC AND PASCO COUNTY AS PROMISED BY DOUG TO FDEP. DOUG INFORMED ME THAT AN ADMINISTRATIVE DECISION FROM FPC THAT THEY DID NOT WANT TO DISCHARGE IT TO SURFACEWATER - DOUG HAS CALLED HENRY DOMINICK FOR POTENTIAL DISCHARGE TO PERC PONDS AT FPC.

(I SUGGESTED A CONFERENCE CALL WI DOUG SOTHG RICK HENRY ETC - BILL K GAVE up to RICK (NE)

(continue on another sheet, if necessary)

Signature Robert J. Dutton

Title P.E. III

PA-01
1/93
hjs

Bob
FYI
3/26/98

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE
I think
the CO 1st
is a mistake
authorization
is needed
now!
3/26/98

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION,

Complainant,

vs.

PASCO COUNTY, FLORIDA

Respondent.

IN THE OFFICE OF THE
SOUTHWEST DISTRICT

OGC FILE NO.

DRAFT

CONSENT ORDER

This Consent Order is made and entered into between the State of Florida Department of Environmental Protection ("Department") and Pasco County, Florida ("Respondent") to reach settlement of certain matters at issue between the Department and Respondent.

The Department finds and the Respondent admits the following:

1. The Department is the administrative agency of the State of Florida having the power and duty to administer and enforce the provisions of Chapter 403, Florida Statutes, and the rules promulgated thereunder, Florida Administrative Code Title 62. The Department has jurisdiction over the matters addressed in this Consent Order.

2. Respondent is a person within the meaning of Section 403.031(5), Florida Statutes.

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Recovery Facility ("RRF"), located on Hays Road, North of S.R. 52 in Spring Hill, Florida ("facility"). The facility is specifically located at Latitude 28°22'05" Longitude 82°33'30", Spring Hill, Pasco County, Florida. Respondent operates a solid waste incinerator and various solid waste management facilities at the facility under Department Site Certification No. PA87-23.

4. The incinerator ash is disposed of on-site in lined disposal units with leachate collection and removal systems. The ash leachate water is removed to a 2,000,000 gallon on-site leachate storage tank, then sent to an on-site leachate treatment plant, and the resulting treated water used as process water at the resource recovery facility.

5. Through mismanagement of the operation in early 1997, incinerator ash was placed throughout the entire 10 acre unit referred to as disposal unit A-2, subjecting all stormwater which fell within A-2 to come in contact with ~~ash and~~ thus become leachate. The ash leachate is contains ~~high~~ concentrations of chlorides, dissolved salts, metals, and ~~ammonia.~~ In June 1997, design and operational problems caused the shutdown of the on-site leachate treatment plant and the inability to treat and remove generated leachate. Respondent attempted to send the ash leachate to several County wastewater treatment plant, however the high chloride content of the leachate caused temporary upsets of those plants. Respondent accumulated leachate in the storage tank, which with the typical summer rains quickly was filled to capacity, and then ceased removal of leachate from the ash disposal units. With the treatment plant shutdown, and no

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effective alternate method for leachate treatment and removal, as of November 1997 the ash disposal units were already impounded with several feet of leachate.

6. During December 1997 through February 1998, the west central region of Florida was inundated by rainfall which surpassed previous historical records. Pasco County recorded 43.08 total inches of rainfall for the three month period.

7. On December 23, 1997, the United States Small Business Administration declared the west central Florida area a disaster area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

8. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

9. This accumulation of rainfall has created a state of emergency at the Pasco County RRF. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. In addition, Respondent to date has been unable to restore the leachate treatment plant to full operation. As of March 20, 1998, the ash disposal units have become impounded to within 28 inches of the top of the liner and the facility has approxiamately 35 million gallons of ash leachate impounded in the disposal units. This has created a condition which has the potential to cause an overtopping or a

DRAFT

breach and thus an uncontrolled release from the ash disposal units which contain large amounts of ash leachate water if normal rainfall is received in the coming months. This has also created a condition in which the integrity of the liners of the ash disposal units are potentially at risk due to increased depth on the liner.

10. An overtopping or a breach of the containment system could result in an uncontrolled and untreated release of the ash leachate water to the site stormwater management ponds, which are located in an area of highly permeable soils connected to the Floridan Aquifer. The effects of such an event would be contamination of the Upper Florida Aquifer System with high concentrations of chlorides and dissolved metal salts with the potential for degrading the potability of a primary water supply source for the Tampa Bay Region. In addition, in the case of discharge to surface water, the high ammonia concentrations would be toxic to freshwater organisms.

11. Substantial hauling of leachate to a more appropriate discharge point, such as the cooling water discharge area at the Florida Power Corporation Anclote Power Plant would allow for a controlled release and appropriate treatment of the excess ash leachate water and would be both feasible to do at once and adequate to alleviate the emergency situation.

12. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm to the environment exists at this facility and emergency measures

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to relieve such conditions must be taken to restore the ash disposal units to a safe operating status.

13. The Department and the Respondent have met on several occasions on this matter. Having reached a resolution of the matter Department and the Respondent mutually agree and it is,

THEREFORE, IT IS ORDERED:

14. Respondent shall conduct all ash leachate transport, discharge, monitoring, and reporting requirements in accordance with the terms and conditions of the agreement between Respondent and FPC (Attachment 1) and in accordance with the the terms anad conditions of this order.

15. Respondent, at a minimum, shall transport and discharge ash leachate water (leachate) at the rate ~~of an average of~~ averaging 300,000 gallons per day (for a weekly total of at least 2.1 million gallons), (not to exceed 0.1% leachate volume:cooling water volume) either to the cooling water discharge canal at Florida Power Corporation Anclote Power Plant (FPC), at a location adjacent to the existing FPC point of discharge of cooling water into the cooling water discharge canal, or other Department approved treatment or discharge sources, or a combination of both. This rate of hauling shall commence from the effective date of this Order and continue for 120 days or until Respondent has reduced the depth of leachate over the primary liner of both disposal units A-1 and A-2 to less than 1 foot, whichever occurs first. In the event that, for any reason, the discharge of leachate to FPC must be reduced or discontinued, Respondent shall

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immediately (within 24 hours) notify the Department, immediately insure that at least 60,000 gallons per day are transported to the City of Tampa Wastewater Treatment Plant, and within ~~30~~ 10 days, arrange for the continued transport of and discharge at the rate of at least 300,000 per day to alternate Department approved treatment or discharge sources.

16. Respondent shall continue to remove leachate from each disposal unit's leak detection system and initially from ash disposal unit A-2 until such time as the elevation of leachate in unit A-2 is maintained at or below 50 feet NGVD. Removal from A-2 shall continue as needed to maintain the leachate level at 50 feet NGVD or below in unit A-2. After this initial goal is met, Respondent shall commence with removal of the impounded leachate in unit A-1.

17. Within 60 days of the effective date of this ~~order~~ agreement, Respondent shall ~~have~~ either completed corrective actions on the on-site leachate treatment plant such ~~that~~ it has the capacity to treat ~~a minimum of~~ at least 35,000 gallons per day and provided the Department with documentation of a contingency plan for alternate treatment or disposal of ~~that quantity~~ at least 35,000 gallons per day of leachate in the ~~case~~ event of future on-site leachate treatment plant failure or ~~shall~~ provide the Department with documentation of a permanent (~~minimum of~~ for at least 2 years) contract with an alternate Department approved source for the treatment or discharge of ~~that quantity~~ at least 35,000 gallons per day of leachate.

missing sentence

elevations noted in the attached sketch(Exhibit A) and the following schedule:

Grading and Covering Schedule

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Start 1st Area at Elevation 55 NGVD
Start 2nd Area at Elevation 54 NGVD
Start 3rd Area at Elevation 53 NGVD
Start 4th Area at Elevation 52 NGVD
Start 5th Area at Elevation 51 NGVD.

("1st thru 5th" are the areas to be capped. "Elevation" is the elevation of leachate in the unit at the time of capping.)

Respondent shall commence with regrading, berm construction and covering of each resulting exposed area of unit A-2 according to the Schedule and shall complete the regrading, berm construction and covering of each area within 10 days. The regrading of each exposed area shall be accomplished by relocating the existing ash within the exposed area without disturbing the existing sand cover over the bottom liner and can be supplemented with new ash if it is available. As part of regrading, Respondent shall remove metal objects from the ash which may compromise the intergrity of the cover. The covering shall be accomplished by the installation of a geomembrane cover to prevent further stormwater infiltration into the ash, designed to collect stormwater on top of the cover and pump the stormwater off the unit and into on site retention ponds.

19. Respondent shall operate this disposal operation in a manner which insures that the leachate discharged shall receive the treatment necessary and be discharged in such a manner as to minimize impacts to the environment. Should any adverse impacts occur (aquatic mortality caused by Respondent's discharge), Respondent shall be liable for damages under Chapter 403 of the Florida Statutes.

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20. A mixing zone within the cooling water discharge canal shall be allowed for all parameters listed in Rule 62-701.510(8)(c) Florida Administrative Code for the discharge of the leachate to comply with Class III marine water quality standards and minimum criteria of the State of Florida. The mixing zone shall measure 500 feet downstream from FPC's existing point of discharge of cooling water to the cooling water discharge canal. Respondent is required to meet all Class III marine water quality standards and minimum criteria at the edge of the above described mixing zone.

CHARGES REVIEWED

21. Respondent shall monitor water quality at the discharge location (composite of 5 randomly selected tanker loads), and at a point 500 feet downstream from the point of discharge **[a 24 hour composite sample as well as a grab sample at slack ebb tide]**, for the full list of all inorganic parameters listed in Rule 62-701.501(8)(c) Florida Administrative Code, and acetone, on a daily basis for the first week after initiation of this discharge activity, and on a weekly basis thereafter. **Respondent is required to meet all Class III marine water quality standards at the above described point of monitoring.**

22. Respondent shall monitor and report the discharge at the locations described in 16. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Gulf of Mexico for any adverse impacts on a daily basis. A report containing the results and conclusions from this monitoring and observation shall be submitted by 9:00 A.M. the following day to the Department's

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Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or by e-mail to Charles Kovach (Kovach_C@tpa1.dep.state.fl.us).

23. Respondent shall conduct benthic macroinvertebrate sampling at locations **(500 feet, 1000 feet, and 1500 feet)** downstream of the discharge location during the first week after initiation of this discharge activity, and on a monthly basis thereafter. The results of these tests shall be submitted to the Department within 21 days following each sampling period.

24. Respondent shall conduct sediment monitoring at the locations described in 7. above, collecting 3 samples across the width of the cooling water discharge canal (one at the center of the canal, and samples at locations mid-way between the center of the canal and the canal sides. This sediment monitoring shall include analyses for aluminum, barium, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, silver, and zinc, and shall be conducted during the first week after initiation of this discharge activity, and on a bi-weekly basis thereafter. The results of these tests shall be submitted to the Department within 10 days following each sampling period.

25. Respondent shall submit a weekly report, by facsimile followed by submission of disc or e-mail as noted below, including the results and interpretation of all monitoring performed. The report shall also include the daily quantity of leachate removed, transported and discharged, or treated on-site and off-site, and the daily elevation of leachate in units A-1

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and A-2. The report is to be sent to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or by e-mail to Charles Kovach. agreement

26. The reporting requirements of paragraphs 21 through 25 shall continue for the duration of this Order. The Department may revise the list of parameters, monitoring locations, and/or frequency of sampling based upon results and interpretations received.

27. Respondent agrees to pay the Department stipulated penalties in the amount of $500 per day for each and every day Respondent fails to timely comply with any of the requirements of paragraphs 11 though 21 of this Consent Order. A separate stipulated penalty shall be assessed for each violation of this Consent Order. Within 30 days of written demand from the Department, Respondent shall make payment of the appropriate stipulated penalties to "The Department of Environmental Protection" by cashier's check or money order and shall include thereon the OGC number assigned to this Consent Order and the notation "Ecosystem Management and Restoration Trust Fund". Payment shall be sent to the Department of Environmental Protection, 304 Coconut Palm Drive, Tampa, Florida 33619. The Department may make demands for payment at any time after violations occur. Nothing in this paragraph shall prevent the Department from filing suit to specifically enforce any of the terms of this Consent Order. If the Department is required to file a lawsuit to recover stipulated penalties under this

paragraph, the Department will not be foreclosed from seeking civil penalties for violations of this Consent Order in an amount greater than the stipulated penalties due under this paragraph.

28. If any event occurs which causes delay or the reasonable likelihood of delay, in complying with the requirements of this Consent Order, Respondent shall have the burden of proving the delay was or will be caused by circumstances beyond the reasonable control of the Respondent and could not have been or cannot be overcome by Respondent's due diligence. Economic circumstances shall not be considered circumstances beyond the control of Respondent, nor shall the failure of a contractor, subcontractor, materialman or other agent (collectively referred to as "contractor") to whom responsibility for performance is delegated to meet contractually imposed deadlines be a cause beyond the control of Respondent, unless the cause of the contractor's late performance was also beyond the contractor's control. Upon occurrence of an event causing delay, or upon becoming aware of a potential for delay, Respondent shall notify the Department orally within 24 hours or by the next working day and shall, within seven calendar days of oral notification to the Department, notify the Department in writing of the anticipated length and cause of the delay, the measures taken or to be taken to prevent or minimize the delay and the timetable by which Respondent intends to implement these measures. If the parties can agree that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of Respondent, the time for performance hereunder shall be extended

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for a period equal to the agreed delay resulting from such circumstances. Such agreement shall adopt all reasonable measures necessary to avoid or minimize delay. Failure of Respondent to comply with the notice requirements of this paragraph in a timely manner shall constitute a waiver of Respondent's right to request an extension of time for compliance with the requirements of this Consent Order.

29. Persons who are not parties to this Consent Order but whose substantial interests are affected by this Consent Order have a right, pursuant to Sections 120.569 and 120.57, Florida Statutes, to petition for an administrative hearing on it. The Petition must contain the information set forth below and must be filed (received) at the Department's Office of General Counsel, 3900 Commonwealth Boulevard, MS-35, Tallahassee, Florida 32399-3000, within 21 days of receipt of this notice. A copy of the Petition must also be mailed at the time of filing to the District Office named above at the address indicated. Failure to file a petition within the 21 days constitutes a waiver of any right such person has to an administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes.

The petition shall contain the following information: (a) The name, address, and telephone number of each petitioner; the Department's Consent Order identification number and the county in which the subject matter or activity is located; (b) A statement of how and when each petitioner received notice of the Consent Order; (c) A statement of how each petitioner's substantial interests are affected by the Consent Order; (d) A

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statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Consent Order; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Consent Order; (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Consent Order.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the subject Consent Order have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Sections 120.569 and 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-106.205, Florida Administrative Code.

A person whose substantial interests are affected by the Consent Order may file a timely petition for an administrative hearing under Sections 120.569 and 120.57, Florida Statutes, or may choose to pursue mediation as an alternative remedy under

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Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth below.

Mediation may only take place if the Department and all the parties to the proceeding agree that mediation is appropriate. A person may pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the Respondent, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Consent Order. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

(a) The names, addresses, and telephone numbers of any persons who may attend the mediation;

(b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;

(c) The agreed allocation of the costs and fees associated with the mediation;

(d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;

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(e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;

(f) The name of each party's representative who shall have authority to settle or recommend settlement; and

(g) Either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.

(h) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within 21 days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative

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hearing processes under Sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

30. Entry of this Consent Order does not relieve Respondent of the need to comply with the applicable federal, state or local laws, regulations or ordinances.

31. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

32. Respondent is fully aware that a violation of the terms of this Consent Order may subject Respondent to judicial imposition of damages, civil penalties up to $10,000.00 per offense and criminal penalties.

33. Respondent shall allow all authorized representatives of the Department access to the property and plant at reasonable times for the purpose of determining compliance with the terms of this Consent Order and the rules of the Department.

34. All plans, applications, penalties, stipulated penalties, costs and expenses, and information required by this Consent Order to be submitted to the Department should be sent to _____ Waste Program Administrator, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619.

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initiate appropriate legal action to prevent or prohibit any violations of applicable statutes, or the rules promulgated thereunder that are not specifically addressed by the terms of this Consent Order.

36. The Department enters into this Consent Order solely to address the emergency created by design and operational problems and extreme weather conditions previously described. This Order does not authorize any activity other than that which is specifically outlined above. This Order does not settle any enforcement actions the Department has taken or will take in the future relative to the actions of Respondent prior to the issuance of this Order or subsequent to this Order.

37. Respondent waives its right to an administrative hearing afforded by Sections 120.569 and 120.57, Florida Statutes, on the terms of this Consent Order. Respondent acknowledges its right to appeal the terms of this Consent Order pursuant to Section 120.68, Florida Statutes, but waives that right upon signing this Consent Order.

38. The provisions of this Consent Order shall apply to and be binding upon the parties, their officers, their directors, agents, servants, employees, successors, and assigns and all persons, firms and corporations acting under, through or for them and upon those persons, firms and corporations in active concert or participation with them.

39. No modifications of the terms of this Consent Order shall be effective until reduced to writing and executed by both Respondent and the Department.

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40. If all of the requirements of this Consent Order have not been fully satisfied, Respondent shall, at least 14 days prior to a sale or conveyance of the property or plant, (1) notify the Department of such sale or conveyance, and (2) provide a copy of this Consent Order with all attachments to the new owner.

41. This Consent Order does not address settlement of any criminal liabilities which may arise from Sections 403.161(3) through (5), 403.413(5), 403.727(3)(b), 376.302(3) and (4), or 376.3071(10), Florida Statutes, nor does it address settlement of any violation which may be prosecuted criminally or civilly under federal law.

42. Respondent shall use all reasonable efforts to obtain any necessary access for work to be performed in the implementation of this Consent Order. If necessary access cannot be obtained, or if obtained, is revoked by owners or entities controlling access to the properties to which access is necessary, Respondent shall notify the Department within (5) business days of such refusal or revocation. The Department may at any time seek to obtain access as is necessary to implement the terms of this Consent Order. The Respondent shall reimburse the Department for any damages, costs, or expenses, including expert and attorneys fees, that the Department is ordered to pay, or that the Department incurs in connection with its efforts to obtain access as is necessary to implement the terms of this Consent Order. Respondent shall pay these sums to the Department

DRAFT

or arrange a payment schedule with the Department within 30 days of written demand by the Department.

43. This Consent Order is a final order of the Department pursuant to Section 120.52(7), Florida Statutes, and it is final and effective on the date filed with the Clerk of the Department unless a Petition for Administrative Hearing is filed in accordance with Chapter 120, Florida Statutes. Upon the timely filing of a petition this Consent Order will not be effective until further order of the Department.

_____
DATE

_____
John J. Gallagher
County Administrator

_____

DONE AND ORDERED this _____ day of _____, 1998, in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
Richard D Garrity, Ph.D.
Director of District Management
Southwest District

Copies furnished to:

Larry Morgan, OGC

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date: 3/26/98

Number of pages including cover sheet: 2

To: Vince Manzella
Pasco County

Phone: 813 8560119
Fax phone: 813 856 0007
CC:

From: Tim Ford

Phone: (813) 744-6100 x 382
Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☑ For your review ☐ Reply ASAP ☐ Please comment

Vince - As you requested
Conversation records w/ Bob yesterday.

I am encouraged to hear you are
not concerned and have no objections
or problems with regrading with
existing ASR

Tim

Date: 3/25/98 04:40:58 PM
From: Robert Butera TPA
Subject: Pasco Update - 3/25/98 - 4:05 P.M.
To: Kim Ford TPA
CC: Richard Garrity TPA
CC: William Kutash TPA
CC: Steve Morgan TPA

Vince called to respond to our questions this AM.

Vince contacted Ron Melton @ FPC who informed him the contract would be in the County attorney's (Barney Telatozich) hand by 4:00 P.M. March 26, 1998. The County attorney informed Vince Mannella he would give it top priority and attempt to get it on the agenda for the BOCC meeting on March 31, 1998. If it does not get on the agenda it will be on the April 7, 1998 agenda. I expressed the Department's concern with any additional delays. Until the BOCC approves the contract the county cannot proceed.

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Transmit Confirmation Report

No.	:	005
Receiver	:	8-1-813-856-0007
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Mar 26 98 10:53
Time	:	01'22
Mode	:	Norm
Pages	:	02
Result	:	OK

Date: 3/25/98 04:40:58 PM
From: Robert Butera TPA
Subject: Pasco Update - 3/25/98 - 4:05 P.M.
To: Kim Ford TPA
CC: Richard Garrity TPA
CC: William Kutash TPA
CC: Steve Morgan TPA

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?

2 yrs

OK — Pasco Responsible for repairs tear punctures 3" seams?

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W. PASCO A-2 3/25/98 by phone 10 am

Vaughn

(1) AGREEMENT REQUIRED W/ EPC — Ron W

A: Vm NOT DONE YET — BOB

BUT WILL check on it — STEVE

(2) Vm SAYS — Kim

1st AREA HULL EXCULIT

2nd AREA NEEDS NEW ASH

KF SAID DONT PLAN on NEW ASH

Vm SAID CONFUSED

(3) BB HOW TO PREVENT PUNCTURES & TEARS

KF ASKED FOR THICKNESS OF LINER

Vm SAID MAYBE 12 mil

KF SAID WHY NOT SAME AS A-2 - 20 mil.

Vm SAID HE WOULD LIKE THE 20 ALSO.

A: Vm will check on THICKNESS OF GEOMEMBRANE.

(4) KF DISCUSSED 5 DAYS TO RE GRADE AND COVER W/ GEOMEMBRANE

Vm HAS NO OBJECTION

A: [illegible]

(5) KF SUGGESTED MEASURING DEPTH TO ASH

Vm SAID HE WOULD PRESENT TO DOUG

KF SAID WHY - ITS FOR YOUR BENEFIT SINCE YOU CLAIM YOU NEED MORE ASH.

(5) BB REQUESTED CONTINGENCY BACKUP
TO ON-SITE LTP.
AND EXTENSION FOR TAMPA WWTP.

(6) UM SAID WILL SEND
ARGUMENT FOR NEW ASH
DEEMED BY 4pm TODAY

PASCO COUNTY, FLORIDA

DADE CITY (352) 521-4274
LAND O' LAKES (813) 996-7341
NEW PORT RICHEY (813) 847-8145
FAX (813) 847-8064

UTILITIES SERVICES BRANCH
PUB. WKS./UTILITIES BLDG., S-213
7530 LITTLE ROAD
NEW PORT RICHEY, FL 34654

March 24, 1998

Post-it® Fax Note 7671	Date 3/24	# of pages ▸ 4
To R. GARRITY	From Doug Bramlett	
Co./Dept. FDEP	Co. PCUSB	
Phone #	Phone # 813-847-8145	
Fax # 813-744-6084	Fax #	

Dr. Richard D. Garrity, Ph.D.
Director of District Management
Florida Department of
Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

RE: Emergency Disposal of Ash Leachate, Pasco County, Florida

Dear Dr. Garrity:

Pasco County entered into Consent Agreement OGC Case No. 96 0953 on July 12, 1996, to eliminate the discharge of ash leachate into the Shady Hills Subregional Wastewater Treatment Plant (WWTP) no later than June 1, 1997. Our requirement was to construct and provide start-up of the Shady Hills Resource Recovery Plant's evaporator/crystallizer unit by April 1, 1997.

Our leachate processing plant was substantially complete on April 1, 1997 and we began full operations of the facility on May 1, 1997, but immediate problems were encountered with our dryer and baghouse units plus additional control and processing failures. We have previously provided you and your staff with updated schedules for needed equipment replacement and our latest schedule (enclosed) provided by the contractor establishes a May 4, 1998 completion date for a total replacement of the baghouse unit and major retrofit of the duct work to the baghouse.

The leachate processing plant was designed to manage and process 35,000 gpd of ash leachate which is adequate capacity for one (1) 10-acre ash cell with normal annual rainfall. Since September 1997, we have experienced abnormally high rainfall and during the period of December 25, 1997 through March 20, 1998, we received 41.6 inches of rainfall at the Resource Recovery Plant site. As you are aware, the El Nino impact on our ash cells A-1 and A-2 have caused our two (2) 10-acre ash disposal cells to collect in excess of 37 million gallons of ash leachate which needs to be disposed of *immediately* to prevent ground water contamination at the Resource Recovery site. I have enclosed a staff memorandum dated

Dr. Richard D. Garrity, Ph.D.
March 24, 1998

March 20, 1998 which documents the quantity of ash leachate in cells A-1 and A-2.

In late September 1997, we began to investigate numerous alternatives to provide co-treatment of ash leachate at large municipal WWTP's and industrial pretreatment plants throughout Florida. We solicited and received telephone quotes from four (4) environmental consultant firms and they proposed numerous alternatives including barging the ash leachate to Alabama and trucking to Jacksonville to an industrial pretreatment facility. These costs ranged from $18.00 per 1,000 gallons to transport ash leachate to County-owned facilities in Pasco County up to .22¢ per gallon to transport to Jacksonville.

We initially, in October 1997, selected J. J. Baker to haul ash leachate to WWTP's in Pasco County including the City of New Port Richey's 7.5 mgd WWPT which is partially owned by Pasco County. As we began to haul ash leachate to four (4) WWTP's in Pasco County, we concurrently began negotiations with the City of Tampa to transport and co-treat ash leachate at Tampa's 90 mgd facility. Hauling to WWTP's throughout Pasco County had to be terminated because the normal average daily flow of wastewater was too low to provide proper co-treatment. I have enclosed a letter from the City of New Port Richey dated February 11, 1998, which noticed Pasco County to stop all discharges of ash leachate into the New Port Richey's WWTP.

In November 1997, we continued to work with City of Tampa staff and on December 10, 1997 we received the enclosed temporary Waste Hauler Discharge Permit (No. 11-21-97-A) to begin hauling of up to 60,000 gpd of ash leachate to Tampa. We solicited emergency bids and thereafter contracted with Coastal Environmental to transport the ash leachate. We began hauling ash leachate to the City of Tampa on or about December 19, 1997 and we are continuing this process until we can provide a better alternative. Our cost for this transport and co-treatment is approximately $1,500.00/day. As a note, we have continually requested that Tampa accept more than 60,000 gpd but they have not to date authorized any additional loads. Our temporary permit with Tampa expires on May 31, 1998, but we believe this permit could be extended if necessary.

Since October, 1997, we have continually interacted with several Environmental Consultants (list enclosed) to keep our lines of communications open for any and all alternatives related to transport and disposal of ash leachate. We received a quote from Quicksilver Environmental, Inc., on February 3, 1998, to transport/treat 10 million gallons of leachate at the International Processing Specialists, Inc.,

Dr. Richard D. Garrity, Ph.D.
March 24, 1998

facility in Jacksonville, Florida for a cost of .19¢ per gallon for 10 million gallons; this equates to $1,900,000.00 which would only reduce approximately 30% of our total quantity stored in A-1 and A-2. We feel this is cost prohibitive since there are other locally available facilities such as co-disposal at the Florida Power Corporation's Anclote Plant in Southwest Pasco County.

The possibility of utilizing the existing hazardous waste injection well at Keiser Aluminum & Chemical Corporation's (KACC's) Mulberry, Florida facility was also investigated. This well injects a dilute hydrochloric acid into a high TDS aquifer (> 100,000 mg/l) which would be compatible with the ash leachate. Discussions with FDEP personnel in the Underground Injection Control Section indicated that a permit modification would have to be obtained before ash leachate could be injected, the timing of which made this alternative infeasible.

We have also solicited alternative solutions from Leonard W. Casson, Ph.D., P.E., who is currently working through the University of Florida on specific research associated with his permanent position as Associate Professor with the Department of Civil and Environmental Engineering, University of Pittsburgh in Pittsburgh, Pennsylvania. Dr. Casson has voluntarily agreed to research our problems with the leachate processing plant and hopefully provide a long-term solution to not only ash leachate processing and disposal but disposal of the dry salt solids.

This letter and summary of events since September 1997, hopefully provides your office with assurances that Pasco County has attempted to solicit and contract with *any and all* available sources for co-treatment and processing of our ash leachate. As you are aware, we have started construction of our synthetic cover for the entire A-1 cell which upon completion, will eliminate all future generation of leachate in cell A-1. Our "free board" in cell A-1 and A-2 is approximately 2.5 feet and we need to remove as much ash leachate as possible at the earliest possible date. This is an *emergency situation* and the transport and disposal of up to 300,000 gpd at the Florida Power Corporation Anclote Plant is the only viable short-term alternative remaining.

?

Again, we solicit your immediate assistance in the form of an Emergency Order or Consent Agreement, which will provide a one-time only discharge of approximately 30,000,000 gallons of ash leachate at the Florida Power Anclote Plant. If we consistently transport 300,000 gpd seven days per week, it will take 100 days to complete the project. As a note, our bids for transport to the Anclote Plant were opened on

AND A-2 GEOMEMBRANE ?

Dr. Richard D. Garrity, Ph.D.
March 24, 1998

Friday, March 20, 1998. The apparent low bid is for $19.67 per 1,000 gallons, which if awarded, the transport cost alone for 30 million gallons will be $590,100.00.

Sincerely,

Douglas S. Bramlett
Assistant County Administrator
(Utilities Services)

DSB/mvv\19\garrity2

Enclosure

cc: Leonard W. Casson, Ph.D., P.E., Associate Professor, Department of Civil and Environmental Engineering, University of Pittsburgh, 944 Benedum Hall, Pittsburgh, PA 15261-2294
Randy Melton, Florida Power Corporation, Post Office Box 14042-H2G, St. Petersburg, FL 33733
John J. Gallagher, County Administrator
Karla Stetter, County Attorney
Vincent Mannella, P. E., Solid Waste Facility Manager

W PASCO LEACHATE
1 pm 3/20/98

John G
Doug B
Vincent
Larry Mason — ATLANTA TESTING
Randy Melton (FPL)

Rick G
Bill K
Henry D
Steve M
James F
Kim F
Charles K

Rick explained
what to discuss:
ED vs CD ER
w/ who
TECHNICAL ISSUES
Reason for any ALTERNATE

JG will supply explanation of
why other alternative didn't work
BK raises question of sediment
& sea grass but feels more comfortable now
CK ammonia, metals
Recommends ongoing monitoring, to
be reduced in time as in DRAFT ED
Background sediment sampling needed

RM DIFFICULTY SAMPLING
SAFETY ISSUES AND ALSO
REGULATORY COALITION IS NOT A
PROBLEM UPSTREAM FROM THE BOOM

CK ASKED FOR JURISDICTIONAL
DETERMINATION
ASKED FOR AGREEMENT BETWEEN
FPC & COUNTY

RG DISCUSSED CO W/ PASCO
WHAT ROLE FPC HAS WITH DEP ?

RM FALLIN & CONVEYANCE PROVIDED.
FPC MAY DO SOME SAMPLING

DB WILL UP BID ON TRUCK 300,000 GPD
AND WILL BRING IN AND GRADE ASH

KF ASKED IF THEY UNDERSTOOD THE
SILERE INDEPENDENT OF MORE ASH

DB & JM SAND ASH MUST BE BROUGHT IN
AND GRADED TO GET PROPER GRADES

BK SAND DETAILS MUST BE DISCUSSED

DEP WILL (1) PROVIDE EXPLANATION
(2) SEND FPC/PASCO AGREEMENT
(3) ASH REGRADING TECHNICAL ISSUES

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3/19/98

Time 1:20

Subject W PASCO LEACHATE

Permit No.

County

M CRAIG DILTZ

Telephone No.

Representing DEP TALLAHASSEE

[✓] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

CD. SAID DID SOLUTION FOR
ON SITE TREATMENT FOR CHLORIDES,
DID PACKAGE PLANT DESIGN
TO TREAT CHLORIDES TO ALLOW
ON SITE LAND APPLICATION

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/96
pap

Date: 3/19/98 12:13:54 PM
From: William Kutash TPA
Subject: FWD: Pasco Landfill teleconference
To: Kim Ford TPA
To: Steve Morgan TPA
To: Allison Amram TPA

Can any or all of you make this meeting? _ its to break the bad news to Pasco that they may need to find a new leachate disposal alternative.

Date: 3/18/98 04:56:24 PM
From: Sandra Lynch TPA
Subject: Pasco Landfill teleconference

Bill, the Pasco County landfill teleconference is scheduled for Friday, 3/20/98 at 1:00 p.m. Please pass this information on to any staff you want to attend. The meeting will be in the Admin conference room.

Date: 3/18/98 03:34:14 PM
From: Chris McGuire TAL
Subject: Re: DISPOSAL ALTERNATIVES FOR PASCO LEACHATE
To: Kim Ford TPA

Thanx Kim. I have no hesitation in suggesting that Pasco should pay big bucks to haul this leachate, but it all seems pointless if IWS has no treatment for chlorides and sends its effluent to a POTW. For all the bad feelings that this issue raises, we appreciate how much work you have put into this and the difficult position you are in.

Date: 3/18/98 03:04:08 PM
From: Allison Amram TPA
Subject: Re: DISPOSAL ALTERNATIVES FOR PASCO LEACHATE
To: Kim Ford TPA

Kim-

I wasn't thinking about this earlier, but the difference between Tampa and Jax WWTPs may be the salinity of the surface water body that they discharge to. Is there a problem w/ the leachate going to FPC?

Hope all went well at Coniglio.

Allison

Date: 3/18/98 13:20
From: Kim Ford TPA
Subject: DISPOSAL ALTERNATIVES FOR PASCO LEACHATE
To: See Below

I spoke with the IWS people in Jacksonville about acceptance of the leachate in their facility. They said yes so I sent them the analysis and asked them to consider the level of chlorides and TDS and a volume of 300,000 gpd. They said yes at $00.05 (5 cents per gallon). They also said it would be almost impossible to get enough trucks to haul that amount (since it is so much farther away, it would take about 25 tankers rather than 10 to haul to Anclote.

IWS discharges to the City if Jacksonville WWTP. Since the City of Tampa WWTP currently only accepts 60,000 gpd to prevent plant upsets and it is a 60 mgd facility, can we expect the city of Jacksonville WWTP to accept 300,000 gpd since it is only a 52 mgd facility? IWS has no treatment for chlorides.

Based on previous estimates to haul from Pasco to Sarasota (a previous alternative considered $325/6000 gallons roundtrip 120 miles each way), the cost to haul to IWS in Jacksonville is $3,250,000 for 30,000,000 gallons plus disposal cost of $1,500,000, for a total of $4,750,000.

kbf

To: James Bottone TAL
To: Jennifer Fitzwater TAL
To: David Thulman TAL
To: Craig Diltz TAL
To: Mary Jean Yon TAL
To: Richard Tedder TAL
To: Chris McGuire TAL
To: Henry Dominick TPA
To: Joseph May TPA
To: Charles Kovach TPA
To: Richard Garrity TPA
To: John Ruddell TAL
To: Mimi Drew TAL
CC: Michael Hickey TPA
CC: Judy Richtar TPA
CC: Robert Butera TPA
CC: Steve Morgan TPA
CC: Allison Amram TPA
CC: William Kutash TPA

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date: 3/18/98

Number of pages including cover sheet: 2

To: DALE

IWS

Phone:

Fax phone: 904 3534033

CC:

From: Jim FORD

Phone: (813) 744-6100 x382

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☑ For your review ☑ Reply ASAP ☐ Please comment

W PASCO
ASH LEACHATE
AS REQUESTED BY
RICHARD GRAMS (#904 3540372)

JIM

300000/DAY & 30,000,000 TOTAL
HIGH CHLORIDES !! TDS

BUCKMAN
$2,000,000
CAPACITY

COST TO ALLEVIAT
$.05/GALLON

Table 1
Leachate Quality
Cell A-2 Sump

Parameter	9/8/97	9/15/97	9/22/97	9/30/97	10/7/97	10/21/97	12/24/97	12/31/97	1/7/98	1/14/98	1/21/98	1/28/98
Alkalinity as CaCO3	231	162	305	389	338	172						
Total Organic Carbon	41.2	59	56.7	35.9	38.5	14.4						
Chloride	22,419	17,216	29,110	23,120	28,072	18,737	20,558	49,991	45,435	35,259	33,485	36,557
Fluoride	0.12	0.13	0.14	0.24	0.14	0.13						
Ammonia N	22.4	13.2	28.9	27.2	23.7	13.3						
Kjeldahl N	22.6	13.4	28.6	26.0	24.6	13.6	10.2	48.4	15.1	40.8	41.2	34.4
Nitrite	0.03	0.02	0.06	<0.01	<0.01	<0.01						
Nitrate	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11						
pH, Lab	7.33	7.07	7.05		7.47	7.14	7.52	8.70	6.74	7.38	7.44	7.40
Total Phosphorus	0.30	0.11	0.17	0.09	0.18	0.21						
Total Dissolved Solids	82,500	69,400	98,500	58,900	64,100	45,400			129,000	111,600	156,200	87,600
Total Suspended Solids	22	23	3	32	302	23	34	17	506	486	592	408
Specific Conductivity	56,700	44,100	67,400	60,700	57,200	47,900			111,200	90,100	77,000	81,700
Sulfate	454	472	546	449	429	378			560	603	632	573
Aluminum	0.200	0.138	0.269	0.201	0.218	0.114						
Arsenic	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04
Barium	3.05	2.73	3.16	3.05	2.16	2.04						
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.15	0.12	0.17	0.13	0.13	0.13
Calcium	9,900	6,390	8,790	8,180	7,460	5,950						
Chromium	<0.01	0.012	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
Copper	0.15	0.12	0.16	0.16	0.17	0.15	0.28	0.26	0.30	0.30	0.34	0.25
Iron	0.77	0.48	0.59	1.52	0.88	0.6						
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.30	1.82	1.58	1.69
Magnesium	4.33	5.06	3.44	3.87	4.10	4.87						
Manganese	0.52	0.56	0.38	0.58	0.57	0.52						
Nickel	0.61	0.40	0.59	0.52	0.57	0.46	1.19	1.03	1.19	0.92	1.04	1.11
Potassium	3,170	2,470	3,680	3,370	3,300	2,390						
Selenium	<0.01	<0.07	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.31	0.25	0.34	0.25	0.25	0.26
Sodium	4,360	3,990	5,640	5,210	5,120	3,900						
Zinc	0.08	0.07	0.09	0.07	0.12	0.06	0.15	0.13	0.26	0.17	0.32	0.15
BOD							436	294	288	143	169	251

All concentrations in milligrams per liter (mg/l), except pH (in units) and specific conductivity (in micromhos per centimeter).

Transmit Confirmation Report

No.	:	004
Receiver	:	8-1-904-353-4033
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Mar 18 98 12:41
Time	:	01'30
Mode	:	Norm
Pages	:	02
Result	:	OK

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 3/18/98

Time 8:50

Subject W PASCO

Permit No.

County PASCO

M CRAIG DILTZ

Telephone No. SC 2919385

Representing DEP

[ ] Phoned Me [✓] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

DISCUSSED POSSIBLE TREATMENT OF ASH LEACHATE W/ LIME.
CD SAYS HE WILL TALK TO OTHERS TODAY AND HAS GIVEN IT SOME THOUGHT.
IN EXPLAINING WE HAD DISCUSSED A PADDLE BOAT AND DUMPING BAGS OF LIME INTO THE LEACHATE
CD INTERESTED IN BARGING TO JACKSONVILLE
I EXPLAINED BARGING CONSIDERED TO LOUISIANA BUT NO TANK TO STAGE LEACHATE IN TO FILL BARGES QUICKLY
CD. ASKED ABOUT DISCHARGE TO GW. I EXPLAINED WW TP NEXT DOOR TOOK THE LEACHATE FOR 2 YEARS AND CHLORIDES SHOWED UP IN WELLS

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/96
pap

Date: 3/17/98 08:36:56 AM
From: Judy Richtar TPA
Subject: Emergency Final Order-W.Pasco
To: Kim Ford TPA
To: Anna Black TPA
To: Diana Booth TPA
To: Charles Kovach TPA

Draft okay except Charles' email address should not include a colon, replace with a period.

Date: 3/17/98 08:30:45 AM
From: Anna Black TPA
Subject: DRAFT Emergency Final Order - West Pasco
To: See Below

As discussed with Mike Hickey on Friday, March 13th, this document is sent to you for any specific changes. Please send your changes to Booth_D, Kovach_C, Black_A, and Ford_K. Thank you in advance.

Kim Ford

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY AUTHORIZATION FOR THE TRANSPORT AND DISCHARGE OF ASH LEACHATE FROM THE PASCO COUNTY RESOURCE RECOVERY FACILITY AT FLORIDA POWER CORPORATION ANCLOTE POWER PLANT MADE NECESSARY BY RECENT CHRONIC RAINFALL

CASE NO. 98-

/

EMERGENCY FINAL ORDER

Under Section 120.569(2)(l) of the Florida statutes, the State of Florid Department of Environmental Protection (Department) enters the following Emergency Final Order, including findings of fact and conclusions of law in response to excessive leachate impoundment in ash disposal units at the Pasco County (Pasco) Resource Recovery Facility(RRF) resulting from improper operat of their ash disposal units, a shutdown of their leachate treatment plant in 1997 due to design and operational problems, and complications due to extreme high levels of rainfall which occurred in Pasco County during December 1997 through February 1998.

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of t Florida Administrative Code(F.A.C.).

FINDINGS OF FACT

1. The Pasco RRF is located on Hays Road, North of S.R. 52 in Spring Hil Florida. Pasco operates a solid waste incinerator and various solid waste management facilities at the site. The incinerator ash is disposed of on-sit lined disposal units with leachate collection and removal systems. The ash leachate water is removed to a 2,000,000 gallon on-site leachate storage tank then sent to an on-site leachate treatment plant, and the resulting treated w used as process water at the resource recovery facility.

2. Through mismanagement of the operation in early 1997, incinerator ash was placed throughout the entire 10 acre unit referred to as disposal unit A- subjecting all stormwater which fell within A-2 to come in contact with ash a thus become leachate. In June 1997, design and operational problems caused t shutdown of the on-site leachate treatment plant and the inability to treat a remove generated leachate. Pasco accumulated leachate in the storage tank, w with the typical summer rains quickly was filled to capacity, and then ceased removal of leachate from the ash disposal units. With the treatment plant shutdown, and no effective alternate method for leachate treatment and remova as of November 1997 the ash disposal units were already impounded with severa feet of leachate.

3. During December 1997 through February 1998, the west central region Florida was inundated by rainfall which surpassed previous historical records Pasco County recorded 43.08 total inches of rainfall for the three month peri

4. On December 23, 1998, the United States Small Business Administratio declared the west central Florida area a disaster area based on damages to ho and businesses caused by severe storms and flooding which occurred on the 12t through the 14th of December, 1997.

5. The Office of the President of the United States, on January 6, 1998

issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginn December 23, 1997 and continuing.

6. The Department finds that this accumulation of rainfall has created state of emergency at the Pasco RRF. The excessive rainfall has accumulated rate which far exceeds the safe storage and management capabilities of the facility. In addition, Pasco, to date has been unable to restore the leachat treatment plant to full operation. As of March 11, 1998, the ash disposal un have become impounded to within 30 inches of the top of the liner. This has created a condition which has the potential to cause an overtopping or a brea and thus an uncontrolled release from the ash disposal units which contain la amounts of ash leachate water if normal rainfall is received in the coming months. This has also created a condition in which the integrity of the line of the ash disposal units are potentially at risk due to increased depth on t liner.

7. An overtopping or a breach of the containment system could result in an uncontrolled and untreated release of the ash leachate water to the site stormwater management ponds, which are located in an area of highly permeable soils connected to the Floridan Aquifer. The effects of such an event would contamination of the Upper Florida Aquifer System, a primary water supply sou for the Tampa Bay Region.

8. Substantial hauling of leachate to a more appropriate discharge poin such as the cooling water discharge area at the Florida Power Corporation Anc Power Plant would allow for a controlled release and appropriate treatment of excess ash leachate water and would be both feasible to do at once and adequa to alleviate the emergency situation.

9. Based on the conditions described above, the Department has determin that the potential for disaster and imminent harm to the environment exists a this facility and emergency measures to relieve such conditions must be taken restore the ash disposal units to a safe operating status.

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department t authority to issue an Emergency Final Order if, as agency head, I find that a immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the combination of design and operational problems and extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

1. Pasco, at a minimum, shall transport and discharge ash leachate water (leachate) at the rate of not less than 300,000 gallons per day (not to excee 0.1% leachate volume:cooling water volume) to the cooling water discharge can at Florida Power Corporation Anclote Power Plant (FPC), at a location adjacen the existing FPC point of discharge of cooling water into the cooling water discharge canal. This rate of hauling shall commence from the effective date this Order and continue for 120 days or until Pasco has reduced the depth of leachate over the primary liner of both disposal units A-1 and A-2 to less th foot, whichever occurs first. In the event that, for any reason, the dischar of leachate to FPC must be reduced or discontinued, Pasco shall immediately (within 24 hours) notify the Department, immediately insure that at least 60, gallons per day are transported to the City of Tampa Wastewater Treatment Pla and arrange for the continued transport of and discharge at the rate of at le 300,000 per day to alternate Department approved treatment sources.

2. Pasco shall remove leachate exclusively from each disposal unit's lea detection system and from ash disposal unit A-2 until such time as the elevat of leachate in unit A-2 is maintained at or below 50 feet NGVD. Removal shal continue to maintain the leachate level at 50 feet NGVD or below in unit A-2, while commencing with removal of the impounded leachate in unit A-1.

3. Upon leachate levels in unit A-2 reaching an elevation of 55 feet NGV Pasco shall commence with regrading and covering unit A-2 by the installation a geomembrane cover to prevent further stormwater infiltration, designed to collect stormwater on top of the cover and pump the stormwater off the unit. Pasco shall complete installation of such according to the attached sketch (Exhibit A) and the following schedule:

Covering Schedule:

Start	1st @ El. 55,	Finish	1st @ El. 54
"	2nd @ El. 54,	"	2nd @ El. 53
"	3rd @ El. 53,	"	3rd @ El. 52
"	4th @ El. 52,	"	4th @ El. 51
"	5th @ El. 51,	"	5th @ El. 50

"1st thru 5th" are the areas to be covered. "El." is the elevation of leacha in the unit at the time of cover installation.

4. Pasco County shall operate this disposal operation in a manner which insures that the leachate discharged shall receive the treatment necessary an discharged in such a manner as to minimize impacts to the environment. Shoul any adverse impacts occur (aquatic mortality caused by Pasco County's dischar Pasco County shall be liable for damages under Chapter 403 of the Florida Statutes.

5. A mixing zone within the cooling water discharge canal shall be allowed for all parameters listed in Rule 62-701.510(8)(c) Florida Administra Code for the discharge of the leachate to comply with Class III marine water quality standards and minimum criteria of the State of Florida. The mixing z shall measure 500 feet downstream from FPC's existing point of discharge of cooling water to the cooling water discharge canal. Pasco County is required meet all Class III marine water quality standards and minimum criteria at the edge of the above described mixing zone.

6. Pasco County shall monitor water quality at the discharge location (composite of 5 randomly selected tanker loads), and at a point 500 feet downstream from the point of discharge **[a 24 hour composite sample as well as**

grab sample at slack ebb tide], for the full list of all inorganic parameters listed in Rule 62-701.501(8)(c) Florida Administrative Code, and acetone, on daily basis for the first week after initiation of this discharge activity, a on a weekly basis thereafter. **Pasco County is required to meet all Class III marine water quality standards at the above described point of monitoring.**

7. Pasco County shall monitor and report the discharge at the location described in 5. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Gulf of Mexico for any adverse impacts on a daily basis. A report containing the res and conclusions from this monitoring and observation shall be submitted by 9: A.M. the following day to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted the Department's Southwest District Office on disc or by e-mail to Charles Ko (Kovach_C@tpa1:dep.state.fl.us).

8. Pasco County shall conduct benthic macroinvertebrate sampling at locations **(500 feet, 1000 feet, and 1500 feet)** downstream of the discharge location during the first week after initiation of this discharge activity, a on a monthly basis thereafter. The results of these tests shall be submitted the Department within 21 days following each sampling period.

9. Pasco County shall conduct sediment monitoring at the locations described in 7. above, collecting 3 samples across the width of the cooling w discharge canal (one at the center of the canal, and samples at locations mid between the center of the canal and the canal sides. This sediment monitorin shall include analyses for aluminum, barium, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, silver, and zinc, and shall be conduct during the first week after initiation of this discharge activity, and on a bi-weekly basis thereafter. The results of these tests shall be submitted to Department within 10 days following each sampling period.

10. Pasco County shall submit a weekly report, by facsimile (as well a on disc or by e-mail), including the results and interpretation of all monito performed. The report shall also include the daily quantity of leachate remo transported and discharged, or treated on-site and off-site, and the daily elevation of leachate in units A-1 and A-2. The report is to be sent to the Department's Southwest District Office at fax number 813/744-6125. An electr copy of this data shall also be submitted to the Department's Southwest Distr Office on disc or by e-mail to Charles Kovach.

11. The reporting requirements of paragraphs 6, 7, 8, and 9 shall continue for the duration of this Order. The Department may revise the list parameters, monitoring locations, and/or frequency of sampling based upon res and interpretations received.

12. The Department issues this Emergency Final Order solely to address the emergency created by design and operational problems and extreme weather conditions previously described. This Order does not authorize any activity other than that which is specifically outlined above. This Order does not se any enforcement actions the Department has taken or will take in the future relative to the actions of Pasco County prior to the issuance of this Order o subsequent to this Order.

13. This Emergency Final Order shall take effect immediately and shall expire within 120 days from the date of execution set forth below.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled t judicial review under section 120.68 of the Florida Statutes. The Florida Ru of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of t

Department of Environmental protection and a second copy, accompanied by fili fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which they party reside The notice of appeal must be filed within thirty days of rendition of the Ord to be reviewed.

DONE AND ORDERED ON THIS ____day of _____,1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

(DRAFT)

_____
VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

To:	James Bottone TAL
To:	Jennifer Fitzwater TAL
To:	David Thulman TAL
To:	Craig Diltz TAL
To:	Mary Jean Yon TAL
To:	Richard Tedder TAL
To:	Chris McGuire TAL
To:	Henry Dominick TPA
To:	Joseph May TPA
To:	Charles Kovach TPA
CC:	Michael Hickey TPA
CC:	Judy Richtar TPA
CC:	Robert Butera TPA
CC:	Steve Morgan TPA
CC:	Allison Amram TPA
CC:	William Kutash TPA
CC:	Diana Booth TPA
CC:	Kim Ford TPA

Date: 3/16/98 05:32:41 PM
From: Chris McGuire TAL
Subject: Pasco County Emergency Order
To: See Below

Kim, your fax to David Thulman with the partial draft of the Pasco County Emergency Order ended up on my desk. I have some comments, but I would prefer to see a draft of the entire order and just edit it once. Actually, Jennifer Fitzwater (our water facilities attorney) and I will tag-team edit the document (unless Perry or David would prefer someone else). I do have two quick questions. First, will Pasco be trucking 300,000 gpd of treated leachate? I thought their leachate treatment plant wasn't working. Second, do state water quality standards apply in the FPC discharge canal?

Thanx. Please call if you have any questions.

To: Kim Ford TPA
CC: Robert Butera TPA
CC: Richard Garrity TPA
CC: Jennifer Fitzwater TAL
CC: Mary Jean Yon TAL
CC: James Bottone TAL
CC: David Thulman TAL
CC: Perry Odom TAL

Allison
FYI
Tom

atlanta testing & engineering
1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

RECEIVED
MAR 16 1998
D E P

FACSIMILE TRANSMISSION COVER SHEET

DATE: 3/12/98 PROJECT NO: 27-2440M

TO: Kim Ford

OF: FDEP - Tampa

FAX NO.: 813 - 744 - 6084

FROM: Larry Maron

OF: ATLANTA TESTING & ENGINEERING, INC.

PHONE: ~~(813) 623-6646~~ 941-648-4571 FAX NO.: (813) 623-3795

SUBJECT: Pasco County Leachate Disposal
FL. Power Corp Anclote Plant

COMMENTS: Attached is copy of priority pollutant analysis performed on leachate - including dioxin. Charles Kovach suggested the DEP may require this. Please disseminate as appropriate. Hard copy in mail.

NO. OF PAGES TO FOLLOW: 7

IF THERE IS ANY PROBLEM WITH THIS TRANSMISSION, PLEASE CALL THE SENDER AT (813) 623-6646.

☺THANK YOU.
HAVE A NICE DAY

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-0008G
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Cyanide	mg/L	.00500			<.0050
Phenols	mg/L	.00500			.00737
Silver	mg/L	.00005	78.7	.000	.00530
Arsenic	mg/L	.00005	105.	1.12	0.595
Beryllium	mg/L	.00010	104.	.360	<.0001
Cadmium	mg/L	.00005	84.1	.410	.00728
Chromium	mg/L	.00020	83.0	1.03	.00429
Copper	mg/L	.00020	94.2	1.22	0.0227
Mercury	mg/L	.00020	82.7	20.3	<.0002
Nickel	mg/L	.00020	94.5	2.35	0.260
Lead	mg/L	.00010	86.6	2.88	.00722
Antimony	mg/L	.00020	101.	.330	0.0247
Selenium	mg/L	.00030	102.	.610	2.22
Thallium	mg/L	.00010	89.6	2.36	.00817
Zinc	mg/L	.00070	96.1	.310	0.0783
Dilution_Factor		-	-	-	1.00
1,1,1-trichloroethan	ug/L	1.00	113.	2.84	<1.00
1,1,2,2-tetrachloroe	ug/L	1.00	114.	3.58	<1.00
1,1,2-trichloroethan	ug/L	1.00	114.	.780	<1.00
1,1-dichloroethane	ug/L	1.00	108.	4.34	<1.00
1,1-dichloroethene	ug/L	1.00	106.	2.18	<1.00
1,2-dichloroethane	ug/L	0.300	108.	3.71	<0.300
1,2-dichloropropane	ug/L	0.250	124.	.570	<0.250
2-chloroethylvinylet	ug/L	1.00			<1.00
Bromodichloromethane	ug/L	1.00	108.	.200	<1.00
Bromoform	ug/L	1.00	122.	4.00	<1.00

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology. This Report may not be reproduced in part, results relate only to items tested.

Jefferson S. Flowers, Ph.d.
President/Technical Director

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For: Full PP w/ Mo
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
cis-1,3-dichloroprop	ug/L	1.00	106.	1.16	<1.00
Carbon tetrachloride	ug/L	1.00	112.	3.40	<1.00
Chloroform	ug/L	0.300	98.9	3.06	<0.300
Dibromochloromethane	ug/L	1.00	113.	3.62	<1.00
Methylene chloride	ug/L	1.00	101.	4.29	<1.00
trans-1,3,-dichlorop	ug/L	1.00	107.	1.20	<1.00
Trichlorofluorometha	ug/L	2.00	102.	12.7	<2.00
t-1,2-dichloroethene	ug/L	1.00	105.	1.74	<1.00
Trichloroethene	ug/L	1.00	110.	.640	<1.00
Tetrachloroethene	ug/L	1.00	118.	3.31	<1.00
1,2-dibromo-3-chloro	ug/L	1.00	112.	5.23	<1.00
Bromomethane	ug/L	5.00			<5.00
Chlorobenzene	ug/L	0.500	116.	1.11	<0.500
Chloroethane	ug/L	3.00	107.	2.41	<3.00
Chloromethane	ug/L	5.00			<5.00
Dichlorodifluorometh	ug/L	2.00			<2.00
Vinyl chloride	ug/L	0.500			<0.500
o-dichlorobenzene	ug/L	0.500	104.	.700	<0.500
m-dichlorobenzene	ug/L	0.500	106.	1.91	<0.500
Para-dichlorobenzene	ug/L	0.500	115.	.550	<0.500
Hall_Spike	ug/L	0.500	124.	1.53	122.
- -		-	-	-	-
Dilution_Factor		-	-	-	1.00
o-dichlorobenzene	ug/L	0.500	104.	.700	<0.500
m-dichlorobenzene	ug/L	0.500	106.	1.91	<0.500
Para-dichlorobenzene	ug/L	0.500	115.	.550	<0.500

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SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled: Nov 6 1997 Date Received: Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Benzene	ug/L	0.200	98.8	.150	<0.200
Chlorobenzene	ug/L	0.500	116.	1.11	<0.500
Ethylbenzene	ug/L	0.500	97.3	1.71	<0.500
Toluene	ug/L	0.500	98.4	.100	<0.500
Xylene	ug/L	0.500	92.4	.910	<0.500
Methyl-tert-butyleth	ug/L	0.500	96.1	.980	24.4
Total_BTEX	ug/L	0.500	95.3	.740	<0.500
PID_Spike	ug/L	0.500	92.1	.010	87.0
- -		-	-	-	-
Dilution_Factor		-	-	-	1.00
Acrolein	ug/L	0.500			<0.500
Acrylonitrile	ug/L	0.500			<0.500
- -		-	-	-	-
Surr_Spike(AE)	ug/L	1.00	73.9	1.86	74.0
2-Nitrophenol	ug/L	1.00	77.7	3.42	<1.00
4-Chloro-3-methylphe	ug/L	1.00	68.5	1.78	<1.00
2,4,6-trichloropheno	ug/L	1.00	73.1	.960	<1.00
2,4-Dichlorophenol	ug/L	1.00	67.7	3.31	<1.00
2,4-Dimethylphenol	ug/L	1.00	58.4	3.51	<1.00
2,4-Dinitrophenol	ug/L	1.00	87.7	3.74	<1.00
2-chlorophenol	ug/L	0.200	56.1	.580	<0.200
2-methyl-4,6-dinitop	ug/L	1.00	94.0	.210	<1.00
4-Nitrophenol	ug/L	1.00	85.6	3.87	<1.00
Pentachlorophenol	ug/L	1.00	97.1	.110	<1.00
Phenol	ug/L	1.00	60.2	2.11	119.
3,3'-Dichlrbenzidene	ug/L	1.00			<1.00

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New Port Richey, FL 34654

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NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Benzidene	ug/L	1.00			<1.00
1,2-Diphenlhydrazine	ug/L	1.00			<1.00
Bis(2-ethylhexyl)pht	ug/L	1.00	70.8	1.89	<1.00
Butyl benzyl phthala	ug/L	1.00	70.0	2.64	<1.00
Di-n-butylphthalate	ug/L	1.00	72.3	.510	<1.00
Diethylphthalate	ug/L	1.00	67.5	.020	<1.00
Dimethylphthalate	ug/L	1.00	69.0	2.67	<1.00
Dioctylphthalate	ug/L	1.00	76.5	1.04	<1.00
N-Nitrsdimethylamine	ug/L	1.00	57.4	1.68	<1.00
N-Nitrsdiphenylamine	ug/L	1.00	60.7	.750	<1.00
N-Ntrsdi-n-prpylmine	ug/L	1.00	66.4	1.61	<1.00
2,4-dinitrotoluene	ug/L	1.00	94.0	4.72	<1.00
2,6-Dinitrotoluene	ug/L	1.00	84.9	4.71	<1.00
Isophorone	ug/L	1.00	69.4	3.86	<1.00
Nitrobenzene	ug/L	1.00	73.7	4.80	<1.00
Acenaphthylene	ug/L	1.00	58.4	1.68	<1.00
Acenaphthene	ug/L	1.00	62.5	.440	<1.00
Anthracene	ug/L	1.00	69.7	.940	<1.00
Benzo(a)anthracene	ug/L	1.00	83.5	3.02	<1.00
Benzo(a)pyrene	ug/L	1.00	77.0	1.65	<1.00
Benzo(b)fluoranthene	ug/L	1.00	84.4	6.98	<1.00
Benzo(g,h,i)perylene	ug/L	1.00	78.4	1.16	<1.00
Benzo(k)fluoranthene	ug/L	1.00	76.0	6.98	<1.00
Chrysene	ug/L	1.00	75.0	3.40	<1.00
Dibnz(a,h)anthracene	ug/L	1.00			<1.00
Fluoranthene	ug/L	1.00	76.0	1.59	<1.00

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NYSDOH Number : 11595
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SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Fluorene	ug/L	1.00	66.7	1.88	<1.00
Indn(1,2,3-cd)pyrene	ug/L	1.00	75.5	5.44	<1.00
Naphthalene	ug/L	1.00	59.8	3.13	<1.00
1-methyl-Naphthalene	ug/L	1.00	60.5	.180	<1.00
2-methyl-Naphthalene	ug/L	1.00	66.0	.370	<1.00
Phenanthrene	ug/L	1.00	69.5	3.46	<1.00
Pyrene	ug/L	1.00	69.1	4.26	<1.00
Intl_QA_Spike(2FBP)	ug/L	1.00			31.6
4-Brmphnl_phnylether	ug/L	1.00	73.7	3.49	<1.00
4-Chlrphnlphnylether	ug/L	1.00	71.7	2.72	<1.00
B(2-chlrethox)methan	ug/L	1.00	63.7	3.05	<1.00
B(2-chlrisprop)ether	ug/L	1.00	65.6	2.83	<1.00
b(2-chlorethyl)ether	ug/L	1.00	56.1	.990	<1.00
1,2,4-trichlorobenze	ug/L	1.00	60.6	4.98	<1.00
o-dichlorobenzene	ug/L	1.00	54.2	.700	<1.00
m-dichlorobenzene	ug/L	1.00	51.2	.130	<1.00
Para-dichlorobenzene	ug/L	1.00			<1.00
2-Chloronapthalene	ug/L	1.00	67.2	3.28	<1.00
Hexachlorobenzene	ug/L	1.00	63.3	4.39	<1.00
Hexachlorobutadiene	ug/L	1.00	64.0	3.16	<1.00
Hexachloroethane	ug/L	1.00			<1.00
Hexachlorocyclopenta	ug/L	1.00			<1.00
Surr_Spike(DBBP)	ug/L	1.00			38.6
Acid_Base_Extraction	ml	-			1000
Dioxin	ug/L	0.0100			<.0100
Dioxin_Extraction	ml	-			-

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology. This Report may not be reproduced in part, results relate only to items tested.

Jefferson S. Flowers, Ph.d.
President/Technical Director

Jefferson L. Flowers, Ph.D
Jefferson S. Flowers, Ph.D
481 NEWBURYPORT Av.
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

Serving Your Analytical and Environmental Needs Since 1957

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Fasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-0008G
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled:Nov 5 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
4,4'-DDD	ug/L	0.0100	94.7	4.67	<.0100
4,4'-DDE	ug/L	.00600	94.6	5.55	<.0060
4,4'-DDT	ug/L	0.0160	101.	1.98	<.0160
a-BHC	ug/L	.00200	101.	7.48	<.0020
Aldrin	ug/L	.00300	103.	8.36	<.0030
b-BHC	ug/L	.00400	95.7	3.23	<.0040
Chlordane	ug/L	0.0400	96.4	6.86	<.0400
d-BHC	ug/L	.00400	93.0	9.54	<.0040
Dieldrin	ug/L	.00600	92.4	5.95	<.0060
Endosulfan_I	ug/L	.00400	94.6	5.78	<.0040
Endosulfan_II	ug/L	.00400	85.9	.060	<.0040
Endosulfan_sulfate	ug/L	.00400	88.5	1.45	<.0040
Endrin	ug/L	.00100	95.4	9.00	<.0010
Endrin_Aldehyde	ug/L	.00100	88.5	1.45	<.0010
g-BHC	ug/L	.00050	99.0	3.25	<.0005
Heptachlor	ug/L	.00200	97.2	8.84	<.0020
Heptachlor_Epoxide	ug/L	.00400	95.3	5.60	<.0040
Kelthane(Dicofal)	ug/L	0.0500			<.0500
Methoxychlor	ug/L	0.0100	93.1	1.23	<.0100
Toxaphene	ug/L	0.100			<0.100
Chlor_Pest_Extractio	ml	-			1000
PCB_1016	ug/L	0.0500			<.0500
PCB_1221	ug/L	0.0500			<.0500
PCB_1232	ug/L	0.0500			<.0500
PCB_1242	ug/L	0.0500			<.0500
PCB_1248	ug/L	0.0500			<.0500

Data Release Authorization

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President/Technical Director

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FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-0008G
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
PCB_1254	ug/L	0.0500			<.0500
PCB_1260	ug/L	0.0500			<.0500
Intl_QA_Spike(DBC)	ug/L	.00010	86.0	1.29	<.0001
Molybdenum	mg/L	.00010	92.0	.800	0.0722

Data Release Authorization

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President/Technical Director

Serving Your Analytical and Environmental Needs Since 1957

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Jefferson S. Flowers, Ph.D
481 NEWBURYPORT Av.
ALTAMONTE SPRINGS
FLORIDA 32715-0597
BUS: (407) 339-5984
FAX: (407) 260-6110

Date: 3/18/98 11:25:24 AM
From: Robert Butera TPA
Subject: FWD: Pasco CO Landfill leachate
To: Kim Ford TPA

Date: 3/9/98 06:03:20 PM
From: Mary Jean Yon TAL
Subject: FWD: Pasco CO Landfill leachate

Bob or Susan:
You'll see from the attached note that Mimi Drew is now in on the Pasco County leachate issue. What's the very latest that I should pass on to John Ruddell? Thanks!

M.J.

Date: 3/9/98 05:30:45 PM
From: John Ruddell TAL
Subject: FWD: Pasco CO Landfill leachate

FYI -- Anybody know anything about this and care to fill me in?

John

Date: 3/9/98 04:06:22 PM
From: Mimi Drew TAL
Subject: Pasco CO Landfill leachate

Rick, my folks are quite concerned about the potential to allow Pasco Co to discharge their landfill leachate via the Anclote power plant. As I understand it, you are entertaining the possibility of an emergency order to allow this discharge of 300,000 gpd for 6 months, or potentially longer. It has metals and unionized ammonia, among other things.

This plant (Anclote) was on the PEER hit list a couple of months ago for operating without a current permit, the suggestion being that this made them out of compliance with water quality standards and potentially causing a water quality problem.

At the very least, I think you, John and I and staff need to telecon on this issue. We need to discuss alternatives, as well as possibly requiring some type of additional treatment before discharge.

Please let me know if and when we can get together. My week, as is John's probably, is crazy with the session, but I can squeeze something in. Thanks.

Date: 3/17/98 04:37:03 PM
From: Allison Amram TPA
Subject: FWD: Re: W. Pasco Emer. Order
To: Kim Ford TPA

Kim-

Charles prefers to change the E/O sampling - sample for all parameters first, if no organics detected, then we can drop them. Let me know when the next opportunity is to revise the draft; I saw that you sent it up to Tallhassee.

Thanks.

Allison

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMITTING APPLICATION PROJECT-EVENT REPORT (PA)

17-MAR-98

Permitting Office: SOUTHWEST DISTRICT (SWD)

Proj Name: LOSKILL, JAMES & DOREEN Rec Date: 21-AUG-97 Rmn: 48
Site Name: ID: 127708
Perm Type: Water - Dredge and Fill P (DF)
Processor: PETERSON_M

Permitting Event: Receive Request
Begin Date: 21-AUG-97 Period: 1 End Date: 21-AUG-97
Status: Done

Permitting Event: Fee Verification
Begin Date: 21-AUG-97 Period: 2 End Date: 21-AUG-97
Status: Exempt

Permitting Event: Completeness Review
Begin Date: 21-AUG-97 Period: 30 End Date: 21-SEP-97
Status: Default

Permitting Event: Determine Agency Action
Begin Date: 21-AUG-97 Period: 90 End Date: 03-OCT-97
Status: Exempt

Permitting Event: STOP CLOCK
Begin Date: 03-OCT-97 Period: 1 End Date: 03-OCT-97
Status: Done

Date: 3/17/98 09:41:06 AM
From: Charles Kovach TPA
Subject: Re: W. Pasco Emer. Order

sounds good to me; let's test first then drop

charles

Charles-

I know you're in Tallhassee all week, but maybe you'll get a chance to check your e-mail.

I looked over the sampling part of the E/O for W. Pasco at Kim's request, and I have a change that I'd like your input on.

You have a condition that the leachate will be tested daily for the first week, and weekly thereafter, for parameters listed in the solid waste rule. These parameters include lots of organics that are generally not detected in the ash leachate. In the past 2 years (they sample 2x/yr), acetone has been detected twice in the ash cell leachates, but no other organics have been detected. I suggest that we change the condition to sampling for all the inorganic parameters listed in Ch. 62-701.510(8)(c), and acetone. Would this be ok for your concerns? It would save them a bit on analyticals. Or we could ask for all the Appendix 1 organics at first, and drop if nothing is detected.

Please let me know. Hope you have a good and productive trip to Tallahassee!

Allison

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMITTING APPLICATION PROJECT-EVENT REPORT (PA)

17-MAR-98

Permitting Office: SOUTHWEST DISTRICT (SWD)

Proj Name: DUDA, DAVID & LYNDA Rec Date: 26-AUG-97 Rmn: 112
Site Name: ID: 127916
Perm Type: Water - Dredge and Fill P (DF)
Processor: HERRON_L

Permitting Event: Receive Request
Begin Date: 26-AUG-97 Period: 1 End Date: 26-AUG-97
Status: Done

Permitting Event: Fee Verification
Begin Date: 26-AUG-97 Period: 2 End Date: 28-AUG-97
Status: Exempt

Permitting Event: Completeness Review
Begin Date: 26-AUG-97 Period: 30 End Date: 26-SEP-97
Status: Default

Permitting Event: Determine Agency Action
Begin Date: 26-AUG-97 Period: 90 End Date:
Status: Pending

W. Pasco Landfill
3/17/98

Rick G
Henry D
Steve M.
James Fine
Kim F

John Rodell
Charles Kovach
Mimi Drew
Chris M
Craig Dilts
Richard Tendel

MD USE OF EO & TECHICAL QUESTION
RG GENERAL DESCRIPTION
CK DESCRIBED WHAT'S IN THE LEACHATE
MD SUGGESTED CO RATHER THAN EO

ASK PASCO TO HAUL TO JACKSONVILLE - STEVE
HENRY TO CHECK ON IMPACT TO SEDIMENT
- RICK'S DECISION

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAXED

FAX

Date: Mar 17, 1998

Number of pages including cover sheet: 2

To: John Ruddell

To: Mary Jean Yon
SWL

Chris McGuire
DSL

Phone:

Fax phone:

CC:

From: Kim Ford

Phone: (813) 744-6100

Fax phone: (813) 744-6125

REMARKS: ☒ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

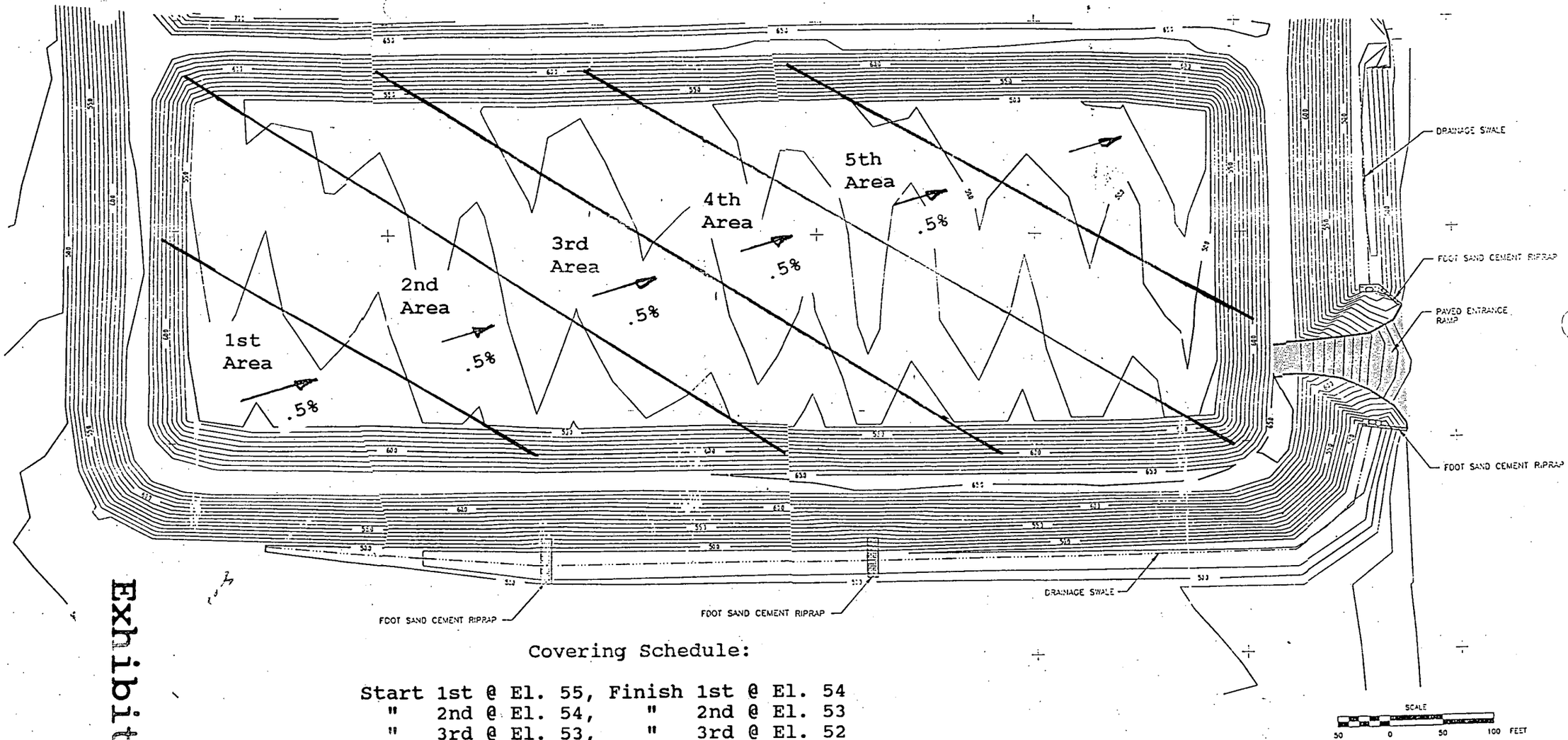


Exhibit A

Covering Schedule:

Start	1st @ El. 55,	Finish	1st @ El. 54
"	2nd @ El. 54,	"	2nd @ El. 53
"	3rd @ El. 53,	"	3rd @ El. 52
"	4th @ El. 52,	"	4th @ El. 51
"	5th @ El. 51,	"	5th @ El. 50

"1st thru 5th" are the areas to be covered. "El." is the elevation of leachate in the unit at the time of cover installation.

RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY, FLORIDA

Transmit Confirmation Report

No.	:	010
Receiver	:	TALWASTE-ADM
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Mar 17 98 12:57
Time	:	01'25
Mode	:	Norm
Pages	:	02
Result	:	OK

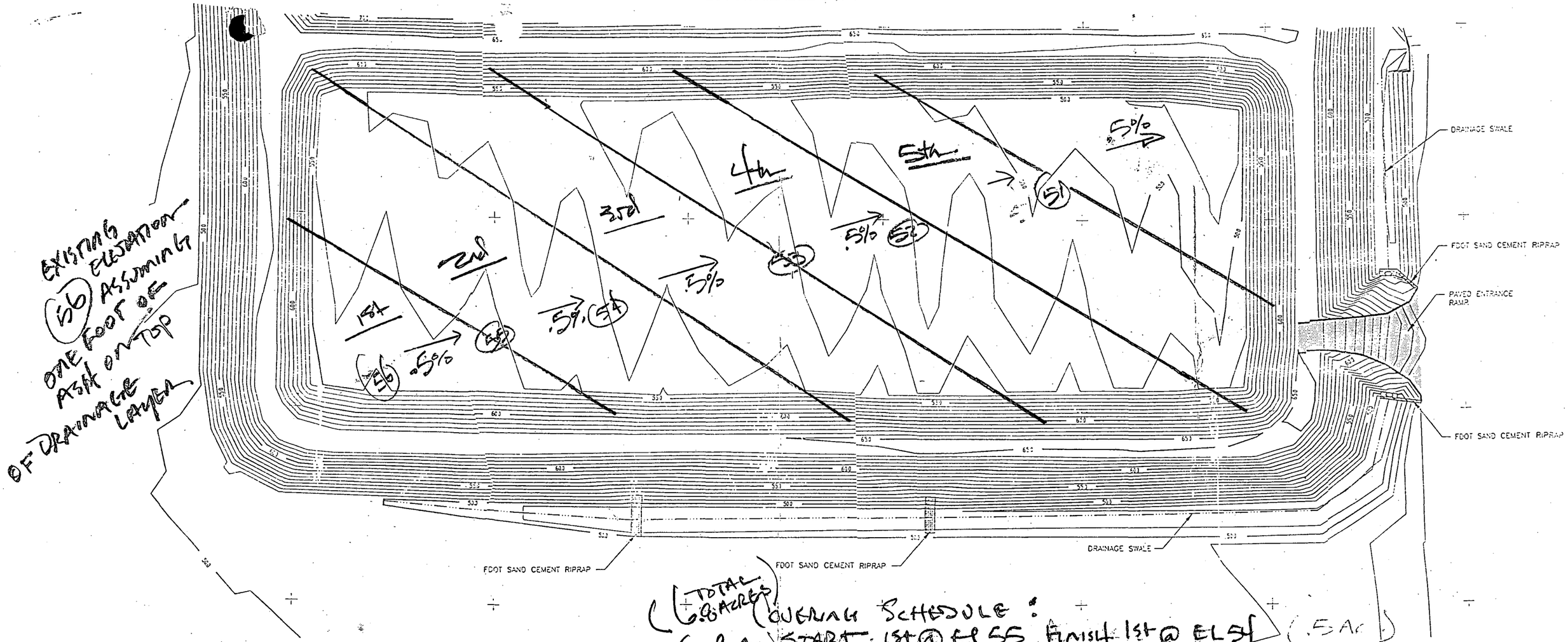
Transmit Confirmation Report

No.	:	009
Receiver	:	SOLID-WST-TA
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Mar 17 98 12:54
Time	:	01'29
Mode	:	Norm
Pages	:	02
Result	:	OK

Transmit Confirmation Report

No.	:	008
Receiver	:	OGC-ENFORCEM
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Mar 17 98 12:51
Time	:	01'24
Mode	:	Norm
Pages	:	02
Result	:	OK

BEST AVAILABLE COPY



(TOTAL 6.8 ACRES)

OVERLAY SCHEDULE:

(.8 Ac)	START 1st @ EL 55,	Finish 1st @ EL 54	
(1.6 Ac)	" 2nd @ EL 54,	" 2nd @ EL 53	
(1.5 Ac)	" 3rd @ EL 53,	" 3rd @ EL 52	
(1.6 Ac)	" 4th @ EL 52,	" 4th @ EL 51	
(1.3 Ac)	" 5th @ EL 51,	" 5th @ EL 50	

Assume No Ash in A-2 (Leachate stored in A-2)

BELOW EL 55

$330 \times 980 \times \left(\frac{2+8}{2}\right) \times 7.5 = 12{,}127{,}500$ Gallons

$\div 300{,}000 = 40$ Days (May 15 - June 25)

FROM EL 60 TO EL 55

$350 \times 1010 \times 5 \times 7.5 = 13{,}256{,}250$ Gallons

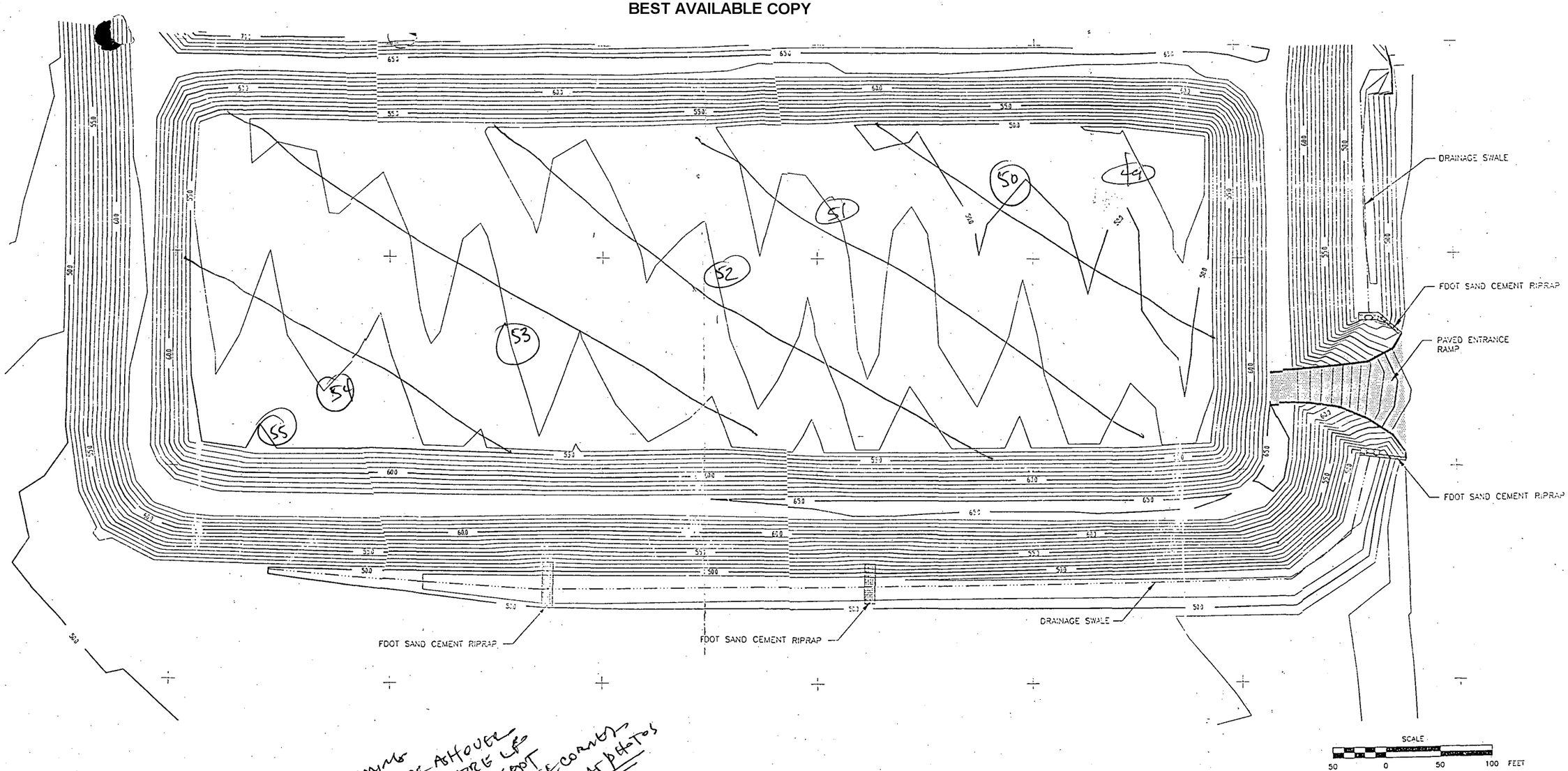
$\div 300{,}000 = 44$ Days (April 1 to May 14)

SCALE

50 0 50 100 FEET

RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY FLORIDA

BEST AVAILABLE COPY



ASSUMING 1' OF ASH OVER ENTIRE LF EXCEPT NE CORNER
LOOK AT PHOTOS

20 min to LOAD 1 TANKER
3 ASH
ROUND TRIP to ANCLOTE

10 TRUCKS @ 4 HR cycle time
6000 cycles EACH TRUCK
360000 x 10 TRUCKS
3600000 GALLONS/DAY

STAGE LINER AT EL55
~~COULD~~ KEEP HAULING UNTIL EL50 AND LINER ON 8 ACRES

RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY FLORIDA

Department of Environmental Protection

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

INFORMATION REQUEST

TO: MARY JEAN YON
SOLID WASTE MANAGEMENT
TALLAHASSEE

We are pleased to send the enclosed information you requested.

If we can be of further service, please contact:

Kim B. Ford, P.E.
Solid Waste Section
Waste Management Division
3804 Coconut Palm Drive
Tampa, FL 33619-8318
(813) 744-6100, ext. 382

COMMENTS: W. PASCO PHOTOS TO HELP EXPLAIN THE EMERGENCY ORDER

Kim 3/17/98

Date: 16.3.1998 10:04
From: Allison Amram TPA
Subject: W. Pasco Emer. Order
To: Charles Kovach TPA
CC: Kim Ford TPA
CC: Robert Butera TPA
CC: William Kutash TPA

Charles-

I know you're in Tallhassee all week, but maybe you'll get a chance to check your e-mail.

I looked over the sampling part of the E/O for W. Pasco at Kim's request, and I have a change that I'd like your input on.

You have a condition that the leachate will be tested daily for the first week, and weekly thereafter, for parameters listed in the solid waste rule. These parameters include lots of organics that are generally not detected in the ash leachate. In the past 2 years, acetone has been detected twice in the ash cell leachates, but no other organics have been detected. I suggest that we change the condition to sampling for all the inorganic parameters listed in Ch. 62-701.510(8)(c), and acetone. Would this be ok for your concerns? It would save them a bit on analyticals. Or we could ask for all the Appendix 1 organics at first, and drop if nothing is detected.

Please let me know. Hope you have a good and productive trip to Tallahassee!

Allison

Date: 3/13/98 12:49:17 PM
From: Henry Dominick TPA
Subject: ASH LEACHATE DISPOSAL REQUEST
To: See Below

The extra copies that I requested from AT&E have arrived. They turned out not to be extra copies, however, since new information is included. Namely, Table 3 has been revised to include the total and dissolved metals concentrations in the County's ash pond leachate.

I am now routing copies to each of you. Jim, I am sending one copy overnight express. If you need more copies in order to expedite the review, let me know.

Henry

To: James Bottone TAL
To: Robert Butera TPA
To: Kim Ford TPA
To: Joseph May TPA
To: Charles Kovach TPA
CC: Michael Hickey TPA

Kim:
minor comments
Judy

MIKE H
JUDY R

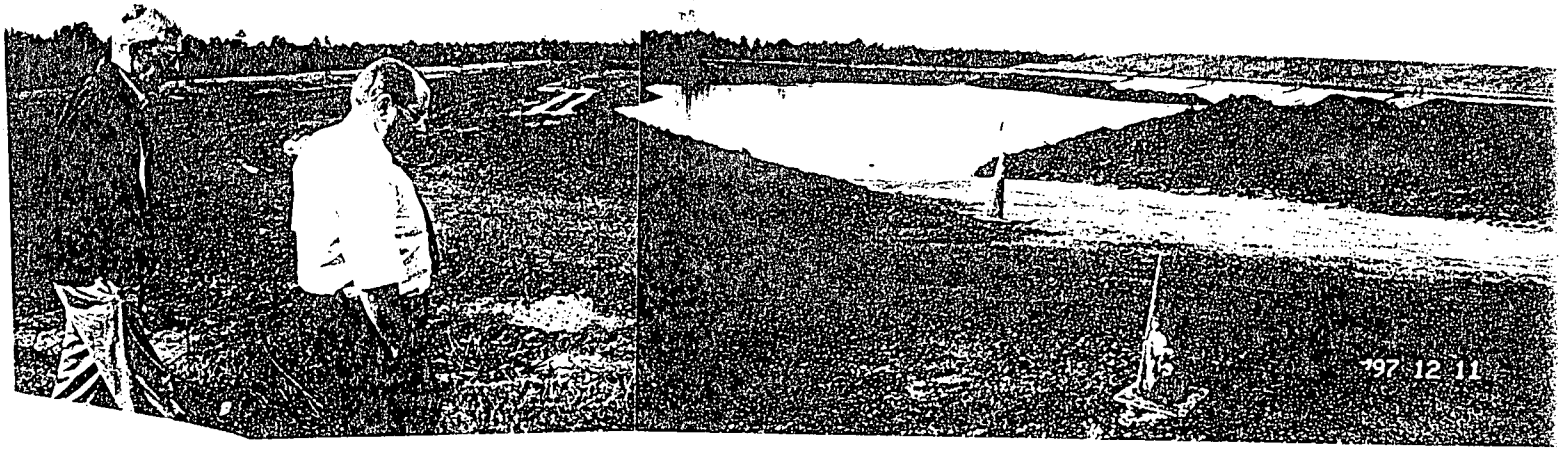
ATTACHED YOU WILL FIND THE
ROUGH DRAFT
EO FOR W PASCO THAT
INCLUDES CHARLES' PART
AND SOLID WASTES PART

ALSO ATTACHED SAMPLING
RESULTS AS CHARLES DISCUSSED
W/ LARRY MARON
WHICH INCLUDE A SCAN
W/ DIOXIN

I HOPE WE CAN SIMPLIFY
CHARLES' PART AND
BRING THIS TO CONCLUSION

THANKS FOR YOUR HELP

Kim 3/13/98


'97 12 11

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY AUTHORIZATION FOR THE TRANSPORT AND DISCHARGE OF ASH LEACHATE FROM THE PASCO COUNTY RESOURCE RECOVERY FACILITY AT FLORIDA POWER CORPORATION ANCLOTE POWER PLANT MADE NECESSARY BY RECENT CHRONIC RAINFALL

CASE NO. 98-

_____/

DRAFT

EMERGENCY FINAL ORDER

Under Section 120.569(2)(l) of the Florida statutes, the State of Florida Department of Environmental Protection (Department)enters the following Emergency Final Order, including findings of fact and conclusions of law in response to excessive leachate impoundment in ash disposal units at the Pasco County (Pasco) Resource Recovery Facility(RRF) resulting from improper operation of their ash disposal cells, a shutdown of their leachate treatment plant in June 1997 due to operational problems, and complicated by extremely high levels of rainfall which occurred in Pasco County during December 1997 through February 1998 and which are expected to continue in the future.

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code(F.A.C.).

FINDINGS OF FACT

1. The Pasco RRF is located on Hays Road, North of S.R. 52 in Spring Hill, Florida. Pasco operates a solid waste

incinerator and various solid waste management facilities at the site. The incinerator ash is disposed of on-site in lined disposal units with leachate collection and removal systems. The ash leachate water is removed to a 2,000,000 gallon on-site leachate storage tank, then sent to an on-site leachate treatment plant, and the resulting treated water used as process water at the resource recovery facility.

2. Through mismanagement of the operation of the disposal units in March 1997, incinerator ash was placed throughout the entire 10 acre unit referred to as disposal unit A-2, subjecting all stormwater which fell within A-2 to come in contact with ash and thus become leachate. In June 1997, design problems caused the shutdown of the on-site leachate treatment plant and the inability to treat and remove generated leachate. Pasco accumulated leachate in the storage tank, which with the typical summer rains quickly was filled to capacity, and then ceased removal of leachate from the ash disposal units. With the treatment plant shutdown, and no effective alternate method for leachate treatment and removal, as of November 1997 the ash disposal units were already impounded with several feet of leachate.

3. During December 1997 through February 1998, the West central region of Florida was inundated by rainfall which surpassed previous historical records. Pasco County recorded 43.08 total inches of rainfall for the three month period.

4. On December 23, 1998, the United States Small Business Administration declared the west central Florida area a disaster

DRAFT

area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

5. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

6. The Department finds that this accumulation of rainfall has created a state of emergency at the Pasco RRF. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. In addition, Pasco, to date has been unable to restore the leachate treatment plant to full operation. As of March 11, 1998, the ash disposal units have impounds to within 30 inches of the top of the liner. This has created a condition which has the potential to cause an overtopping or a breach and thus an uncontrolled release from the ash disposal units which contain large amounts of ash leachate water if normal rainfall is received in the coming months.

DRAFT

verify w/ Allison

7. An overtopping or a breach of the containment system could result in an uncontrolled and untreated release of the ash leachate water to the site stormwater management ponds, which are located in an area of highly permeable soils connected to the Floridan Aquifer and then to Bishop's Harbor. The effects of such an event would be ? Contamination of the Upper Floridan aquifer system, a primary water supply source for the Tampa Bay Region.

DRAFT

8. Substantial hauling of leachate to a more appropriate discharge point, such as the cooling water discharge area at the Florida Power Corporation Anclote Power Plant would allow for a controlled release and appropriate treatment of the excess ash leachate water and would be both feasible to do at once and adequate to alleviate the emergency situation.

9. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm to the environment exists at this facility and emergency measures to relieve such conditions must be taken to restore the ash disposal cell to a safe operating status.

DRAFT

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the combination of site operational problems and extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

DRAFT

THEREFORE, IT IS ORDERED:

1. Pasco, at a minimum, shall transport and discharge ash leachate at the rate of not less than 300,000 gallons per day (not to exceed 0.1% leachate volume:cooling water volume) to the cooling water discharge canal at Florida Power Corporation Anclote Power Plant (FPC), at a location adjacent to the existing FPC point of discharge of cooling water into the cooling water discharge canal. This rate of hauling shall ~~continue~~ commence from the effective date of this Order and continue for 120 days or until Pasco has reduced the depth of leachate over the bottom liners of both disposal units A-1 and A-2 to less than 1 foot, whichever occurs first. In the event that, for any reason, the discharge of ash leachate to FPC must be reduced or discontinued, Pasco shall notify the Department immediately (within 24 hours) and within 7 days arrange for resumption of the rate of hauling to alternate Department approved treatment sources.

2. Pasco shall remove leachate exclusively from each disposal unit's leak detection system and from ash disposal unit A-2 until such time as the elevation of leachate in ash disposal cell A-2 is maintained at or below 50 feet NGVD. Removal shall continue to maintain leachate level at 50 feet NGVD or below in A-2, while commencing with removal of the impounded leachate in ash disposal unit A-1.

3. Upon leachate levels in Cell A-2 reaching an elevation of 55 feet NGVD, Pasco shall commence with regrading and covering A-2 by the installation of a geomembrane cover to prevent further stormwater infiltration, designed to either collect stormwater on top of the cover and pump it off or by sloping the top of the

cover such that stormwater drains off the unit. Pasco shall complete installation of such according to the attached sketch (Exhibit I) and the following schedule:

Covering Schedule:

Start	1st	@ El. 55,	Finish	1st	@ El. 54
"	2nd	@ El. 54,	"	2nd	@ El. 53
"	3rd	@ El. 53,	"	3rd	@ El. 52
"	4th	@ El. 52,	"	4th	@ El. 51
"	5th	@ El. 51,	"	5th	@ El. 50

DRAFT

4. Pasco County shall operate this disposal operation in a manner which insures that the leachate discharged shall **receive the treatment necessary** ~~be discharged in such a manner as~~ and to minimize impacts to the environment. Should any adverse impacts occur (*e.g.*, mortality caused by Pasco COUNTY's discharge), Pasco County shall be liable for damages under chapter 403 of the Florida Statutes.

4. A mixing zone within the cooling water discharge canal shall be allowed *for all parameters listed in permit No. FL_____ (62-701(8)(c) Florida Administrative Code)* **for the discharge of the** treated **leachate to comply with Class III marine water quality standards of the State of Florida. The mixing zone shall measure 500 feet downstream from FPC's existing point of discharge of cooling water to the cooling water discharge canal. Pasco County is required to meet all Class III marine water quality standards at the edge of the above described mixing zone.**

5. Pasco County shall monitor water quality at the discharge location (from a **composite of 5 randomly selected tanker loads**), and at a point ~~immediately~~ **500 feet** downstream from the

not bold

DRAFT

point of discharge **[a 24 hour composite sample as well as a grab sample at slack ebb tide]**, for the **full list of permit parameters (parameters listed in 62-701(8)(c) Florida Administrative Code)** on a daily basis for the first week after initiation of this discharge activity, and on a weekly basis thereafter. *Pasco County is required to meet all Class III marine water quality standards at the above described point of monitoring.*

6. Pasco County shall monitor and report the discharge at the locations described in 5. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Gulf of Mexico for any adverse impacts on a daily basis. A report containing the results and conclusions from this monitoring and observation shall be submitted by 9:00 A.M. the following day to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or my e-mail.

7. Pasco County shall conduct benthic macroinvertebrate sampling at locations **(500 feet, 1000 feet, and 1500 feet)** downstream of the discharge location during the first week after initiation of this discharge activity, and on a monthly basis thereafter. The results of these tests shall be submitted to the Department within 21 days following each sampling period.

8. Pasco County shall conduct sediment monitoring at the locations described in 7. above, collecting 3 samples across the width of the cooling water discharge canal (one at the center of the canal, and samples at locations mid-way between the center of

DRAFT

the canal and the canal sides. This sediment monitoring shall include analyses for aluminum, barium, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, silver, and zinc, and shall be conducted during the first week after initiation of this discharge activity, and on a bi-weekly basis thereafter. The results of these tests shall be submitted to the Department within 10 days following each sampling period.

9. Pasco County shall submit a weekly report, by facsimile (as well as on disc or by e-mail), including the results and interpretation of all monitoring performed. **The report shall also include the operating levels, available freeboard and volume of leachate in Cell A-2.** The report is to be sent to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or ~~by~~ e-mailed to Charles Kovach.

10. The reporting requirements of paragraphs 6, 7, 8, and 9 shall continue for the duration of this Order. The Department may revise the list of parameters, monitoring locations, and/or frequency of sampling based upon results and interpretations received.

11. The Department issues this Emergency Final Order solely to address the emergency created by **the rainfall accumulations as previously described.** This Order does not authorize any activity other than that which is specifically outlined above. This Order does not settle any enforcement actions the Department has taken or will take in the future relative to the actions of Pasco

DRAFT

County prior to the issuance of this Order or subsequent to this Order.

12. This Emergency Final Order shall take effect immediately and shall expire **within** 120 days from the date of execution set forth below.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which they party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS ____day of _____,1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

DRAFT

_____
VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Telephone: (850) 488-1554

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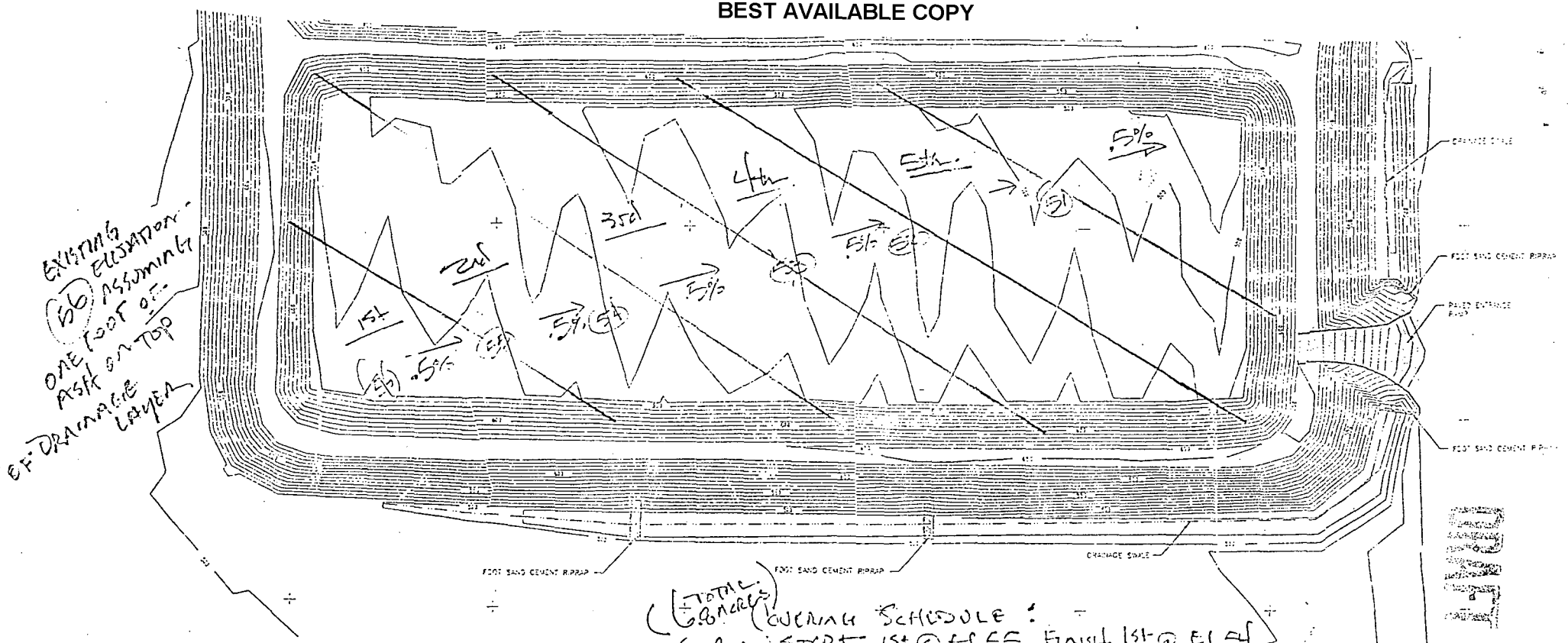

(TOTAL 6.8 ACRES)

OVERLAY SCHEDULE:

(.8 AC)	START 1st @ EL 55,	Finish 1st @ EL 54
(1.6 AC)	" 2nd @ EL 54,	" 2nd @ EL 53
(1.5 AC)	" 3rd @ EL 53,	" 3rd @ EL 52
(1.6 AC)	" 4th @ EL 52,	" 4th @ EL 51
(1.3 AC)	" 5th @ EL 51,	" 5th @ EL 50

RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY, FLORIDA

ASSUMING NO ASH IN A-2 (EACH AIR STACK IN A-2)

BELOW EL 55

$330 \times 980 \times \left(\frac{2+8}{2}\right) \times 7.5 = 12,127,500$ GALLONS

$\div 300,000 = 40$ DAYS (MAY 15 - JUNE 25)

FROM EL 60 TO EL 55

$350 \times 1010 \times 5 \times 7.5 = 13,256,250$ GALLONS

$\div 300,000 = 44$ DAYS (APRIL 1 - to MAY 14)

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1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

Judy R
mylech

FACSIMILE TRANSMISSION COVER SHEET

DATE: 3/12/98 PROJECT NO: 27-2440M

TO: Kim Ford

OF: FDEP - Tampa

FAX NO.: 813 - 744 - 6084

FROM: Larry Mason

OF: ATLANTA TESTING & ENGINEERING, INC.

PHONE: ~~(813) 623-6646~~ FAX NO.: (813) 623-3795

941 - 648 - 4571

SUBJECT: Pasco County Leachate Disposal
FL Power Corp Anclote Plant

COMMENTS: Attached is copy of priority pollutant analysis performed on leachate - including dioxin. Charles Kovach suggested the DEP may require this. Please disseminate as appropriate. Hard copy in mail.

NO. OF PAGES TO FOLLOW: 7

IF THERE IS ANY PROBLEM WITH THIS TRANSMISSION, PLEASE CALL THE SENDER AT (813) 623-6646.

☺THANK YOU.
HAVE A NICE DAY

FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-0008C
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Cyanide	mg/L	.00500			<.0050
Phenols	mg/L	.00500			.00737
Silver	mg/L	.00005	78.7	.000	.00530
Arsenic	mg/L	.00005	105.	1.12	0.595
Beryllium	mg/L	.00010	104.	.360	<.0001
Cadmium	mg/L	.00005	84.1	.410	.00728
Chromium	mg/L	.00020	83.0	1.03	.00429
Copper	mg/L	.00020	94.2	1.22	0.0227
Mercury	mg/L	.00020	82.7	20.3	<.0002
Nickel	mg/L	.00020	94.5	2.35	0.260
Lead	mg/L	.00010	86.6	2.88	.00722
Antimony	mg/L	.00020	101.	.330	0.0247
Selenium	mg/L	.00030	102.	.610	2.22
Thallium	mg/L	.00010	89.6	2.36	.00817
Zinc	mg/L	.00070	96.1	.310	0.0783
Dilution_Factor		-	-	-	1.00
1,1,1-trichloroethan	ug/L	1.00	113.	2.84	<1.00
1,1,2,2-tetrachloroe	ug/L	1.00	114.	3.58	<1.00
1,1,2-trichloroethan	ug/L	1.00	114.	.780	<1.00
1,1 dichloroethane	ug/L	1.00	108.	4.34	<1.00
1,1-dichloroethene	ug/L	1.00	106.	2.18	<1.00
1,2-dichloroethane	ug/L	0.300	108.	3.71	<0.300
1,2 dichloropropane	ug/L	0.250	124.	.570	<0.250
2-chloroethylvinylet	ug/L	1.00			<1.00
Bromodichloromethane	ug/L	1.00	108.	.200	<1.00
Bromoform	ug/L	1.00	122.	4.00	<1.00

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology. This Report may not be reproduced in part, results relate only to items tested.

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FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8664 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-00080
LDEH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled: Nov 6 1997 Date Received: Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
cis-1,3-dichloroprop	ug/L	1.00	106.	1.16	<1.00
Carbon tetrachloride	ug/L	1.00	112.	3.40	<1.00
Chloroform	ug/L	0.300	98.9	3.06	<0.300
Dibromochloromethane	ug/L	1.00	113.	3.62	<1.00
Methylene chloride	ug/L	1.00	101.	4.29	<1.00
trans-1,3,-dichlorop	ug/L	1.00	107.	1.20	<1.00
Trichlorofluorometha	ug/L	2.00	102.	12.7	<2.00
t-1,2-dichloroethene	ug/L	1.00	105.	1.74	<1.00
Trichloroethene	ug/L	1.00	110.	.640	<1.00
Tetrachloroethene	ug/L	1.00	118.	3.31	<1.00
1,2-dibromo-3-chloro	ug/L	1.00	112.	5.23	<1.00
Bromomethane	ug/L	5.00			<5.00
Chlorobenzene	ug/L	0.500	116.	1.11	<0.500
Chloroethane	ug/L	3.00	107.	2.41	<3.00
Chloromethane	ug/L	5.00			<5.00
Dichlorodifluorometh	ug/L	2.00			<2.00
Vinyl chloride	ug/L	0.500			<0.500
o-dichlorobenzene	ug/L	0.500	104.	.700	<0.500
m-dichlorobenzene	ug/L	0.500	106.	1.91	<0.500
Para-dichlorobenzene	ug/L	0.500	115.	.550	<0.500
Hall_Spike	ug/L	0.500	124.	1.53	122.
- -		-		-	-
Dilution_Factor		-	-	-	1.00
o-dichlorobenzene	ug/L	0.500	104.	.700	<0.500
m-dichlorobenzene	ug/L	0.500	106.	1.91	<0.500
Para-dichlorobenzene	ug/L	0.500	115.	.550	<0.500

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FLOWERS CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-0008G
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ No
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Benzene	ug/L	0.200	98.8	.150	<0.200
Chlorobenzene	ug/L	0.500	116.	1.11	<0.500
Ethylbenzene	ug/L	0.500	97.3	1.71	<0.500
Toluene	ug/L	0.500	98.4	.100	<0.500
Xylene	ug/L	0.500	92.4	.910	<0.500
Methyl tert butyleth	ug/L	0.500	96.1	.980	24.4
Total_BTEX	ug/L	0.500	95.3	.740	<0.500
PID_Spike	ug/L	0.500	92.1	.010	87.0
-	-	-	-	-	-
Dilution_Factor		-	-	-	1.00
Acrolein	ug/L	0.500			<0.500
Acrylonitrile	ug/L	0.500			<0.500
-	-	-	-	-	-
Surr_Spike(AE)	ug/L	1.00	73.9	1.86	74.0
2-Nitrophenol	ug/L	1.00	77.7	3.42	<1.00
4-Chloro-3-methylphe	ug/L	1.00	68.5	1.78	<1.00
2,4,6-trichlorophenol	ug/L	1.00	73.1	.960	<1.00
2,4-Dichlorophenol	ug/L	1.00	67.7	3.31	<1.00
2,4-Dimethylphenol	ug/L	1.00	58.4	3.51	<1.00
2,4-Dinitrophenol	ug/L	1.00	87.7	3.74	<1.00
2-chlorophenol	ug/L	0.200	56.1	.580	<0.200
2-methyl-4,6-dinitop	ug/L	1.00	94.0	.210	<1.00
4-Nitrophenol	ug/L	1.00	85.6	3.87	<1.00
Pentachlorophenol	ug/L	1.00	97.1	.110	<1.00
Phenol	ug/L	1.00	60.2	2.11	119.
3,3' Dichlibenzidene	ug/L	1.00			<1.00

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FLOWERS CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 85-0008G
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ No
Date Sampled:Nov 6 1997 Date Received:Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Benzidene	ug/L	1.00			<1.00
1,2-Diphenlhydrazine	ug/L	1.00			<1.00
Bis(2-ethylhexyl)pht	ug/L	1.00	70.8	1.89	<1.00
Butyl benzyl phthala	ug/L	1.00	70.0	2.54	<1.00
Di-n-butylphthalate	ug/L	1.00	72.3	.510	<1.00
Diethylphthalate	ug/L	1.00	67.5	.020	<1.00
Dimethylphthalate	ug/L	1.00	69.0	2.67	<1.00
Dioctylphthalate	ug/L	1.00	76.5	1.04	<1.00
N-Nitrsdimethylamine	ug/L	1.00	57.4	1.68	<1.00
N-Nitrsdiphenylamine	ug/L	1.00	60.7	.750	<1.00
N-Nitrsdi-n-prpylmine	ug/L	1.00	65.4	1.61	<1.00
2,4-dinitrotoluene	ug/L	1.00	94.0	4.72	<1.00
2,6-Dinitrotoluene	ug/L	1.00	84.9	4.71	<1.00
Isophorone	ug/L	1.00	69.4	3.86	<1.00
Nitrobenzene	ug/L	1.00	73.7	4.80	<1.00
Acenaphthylene	ug/L	1.00	58.4	1.68	<1.00
Acenaphthene	ug/L	1.00	62.5	.440	<1.00
Anthracene	ug/L	1.00	69.7	.940	<1.00
Benzo(a)anthracene	ug/L	1.00	83.5	3.02	<1.00
Benzo(a)pyrene	ug/L	1.00	77.0	1.65	<1.00
Benzo(b)fluoranthene	ug/L	1.00	86.4	6.98	<1.00
Benzo(g,h,i)perylene	ug/L	1.00	78.4	1.16	<1.00
Benzo(k)fluoranthene	ug/L	1.00	76.0	6.98	<1.00
Chrysene	ug/L	1.00	75.0	3.40	<1.00
Dibnz(a,h)anthracene	ug/L	1.00			<1.00
Fluoranthene	ug/L	1.00	76.0	1.59	<1.00

Date Release Authorization

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President/Technical Director

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FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-00080
LDHH Number : 94-23
NCDENNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled: Nov 6 1997 Date Received: Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
Fluorene	ug/L	1.00	66.7	1.88	<1.00
Indn(1,2,3-cd)pyrene	ug/L	1.00	75.5	5.44	<1.00
Naphthalene	ug/L	1.00	59.8	3.13	<1.00
1-methyl-Naphthalene	ug/L	1.00	60.5	.180	<1.00
2-methyl-Naphthalene	ug/L	1.00	66.0	.370	<1.00
Phenanthrene	ug/L	1.00	69.5	3.46	<1.00
Pyrene	ug/L	1.00	69.1	4.26	<1.00
Intl_QA_Spike(2FBP)	ug/L	1.00			31.6
4-Bromphnl_phnylether	ug/L	1.00	73.7	3.49	<1.00
4-Chlrphnlphnylether	ug/L	1.00	71.7	2.72	<1.00
B(2-chlrethox)methan	ug/L	1.00	63.7	3.05	<1.00
B(2-chlrisprop)ether	ug/L	1.00	65.6	2.83	<1.00
b(2-chlorethyl)ether	ug/L	1.00	56.1	.990	<1.00
1,2,4-trichlorobenze	ug/L	1.00	60.6	4.98	<1.00
o-dichlorobenzene	ug/L	1.00	54.2	.700	<1.00
m-dichlorobenzene	ug/L	1.00	51.2	.130	<1.00
Para-dichlorobenzene	ug/L	1.00			<1.00
2-Chloronapthalene	ug/L	1.00	57.2	3.28	<1.00
Hexachlorobenzene	ug/L	1.00	63.3	4.39	<1.00
Hexachlorobutadiene	ug/L	1.00	64.0	3.16	<1.00
Hexachloroethane	ug/L	1.00			<1.00
Hexachlorocyclopenta	ug/L	1.00			<1.00
Surr_Spike(DBBP)	ug/L	1.00			38.6
Acid_Base_Extraction	ml	-			1000
Dioxin	ug/L	0.0100			<.0100
Dioxin_Extraction	ml	-			-

Data Release Authorization

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Methods of analysis in accordance with FCL QA and EPA approved methodology.
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FLOWERS

CHEMICAL LABORATORIES INCORPORATED

Received From:
Pasco Co. Utilities Env. Lab
8864 Government Dr.
New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-00086
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled: Nov 5 1997 Date Received: Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%RC	11124 LEACHATE
4,4'-DDD	ug/L	0.0100	94.7	4.67	<.0100
4,4'-DDE	ug/L	.00600	94.6	5.55	<.0060
4,4'-DDT	ug/L	0.0160	101.	1.99	<.0160
a-BHC	ug/L	.00200	101.	7.48	<.0020
Aldrin	ug/L	.00300	103.	9.36	<.0030
b-BHC	ug/L	.00400	95.7	3.23	<.0040
Chlordane	ug/L	0.0400	96.4	6.86	<.0400
d-BHC	ug/L	.00400	93.0	9.54	<.0060
Dieldrin	ug/L	.00600	92.4	5.95	<.0060
Endosulfan_I	ug/L	.00400	94.6	5.70	<.0040
Endosulfan_II	ug/L	.00400	85.9	.060	<.0040
Endosulfan_sulfate	ug/L	.00400	88.5	1.45	<.0040
Endrin	ug/L	.00100	95.4	9.00	<.0010
Endrin_Aldehyde	ug/L	.00100	88.5	1.45	<.0010
g-BHC	ug/L	.00050	99.0	3.25	<.0005
Heptachlor	ug/L	.00200	97.2	8.84	<.0020
Heptachlor_Epoxide	ug/L	.00400	95.3	5.60	<.0040
Kelthane(Dicofal)	ug/L	0.0500			<.0500
Methoxychlor	ug/L	0.0100	93.1	1.23	<.0100
Toxaphene	ug/L	0.100			<0.100
Chlor_Pest_Extractio	ml	-			1000
PCB_1016	ug/L	0.0500			<.0500
PCB_1221	ug/L	0.0500			<.0500
PCB_1232	ug/L	0.0500			<.0500
PCB_1242	ug/L	0.0500			<.0500
PCB_1248	ug/L	0.0500			<.0500

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Received From:
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New Port Richey, FL 34654

Date Reported : Nov17 1997
Project Number : LMF
PO Number : N/A
FDHRSDW Number : 83139
NYSDOH Number : 11595
FDER COMQAPNum : 86-0008G
LDHH Number : 94-23
NCDEHNR Number : 296
SCDHEC Number : 96019

For: Full PP w/ Mo
Date Sampled: Nov 6 1997 Date Received: Nov 7 1997 Lab Number : 11124

REPORT OF ANALYSIS

Parameter	Unit	Method Detection Limit	%ACC	%PRC	11124 LEACHATE
PCB_1254	ug/L	0.0500			<.0500
PCB_1260	ug/L	0.0500			< 0500
Intl_QA_Spike(DRC)	ug/L	.00010	86.0	1.29	<.0001
Molybdenum	mg/L	.00010	92.0	.800	0.0722

Data Release Authorization

Sample integrity and reliability certified by Lab personnel prior to analysis. Methods of analysis in accordance with FCL QA and EPA approved methodology. This Report may not be reproduced in part, results relate only to items tested.

Jefferson S. Flowers, Ph.d.
President/Technical Director

Section 1 of 5 Page 7 of 7

Serving Your Analytical and Environmental Needs Since 1957

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BOB & STEVE COMMENTS

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY AUTHORIZATION FOR THE TRANSPORT AND DISCHARGE OF ASH LEACHATE FROM THE PASCO COUNTY RESOURCE RECOVERY FACILITY AT FLORIDA POWER CORPORATION ANCLOTE POWER PLANT MADE NECESSARY BY RECENT CHRONIC RAINFALL

CASE NO. 98-

/

EMERGENCY FINAL ORDER

Under Section 120.569(2)(l) of the Florida statutes, the State of Florida Department of Environmental Protection (Department) enters the following Emergency Final Order, including findings of fact and conclusions of law in response to excessive leachate impoundment in ash disposal units at the Pasco County (Pasco) Resource Recovery Facility(RRF) resulting from improper operation of their ash disposal ~~cells~~ units, a shutdown of their leachate treatment plant in June 1997 due to design and operational problems, and complicat~~ed by~~ions due to extremely high levels of rainfall which occurred in Pasco County during December 1997 through February 1998~~and which are expected to continue in the future.~~

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code(F.A.C.).

FINDINGS OF FACT

1. The Pasco RRF is located on Hays Road, North of S.R. 52 in Spring Hill, Florida. Pasco operates a solid waste

incinerator and various solid waste management facilities at the site. The incinerator ash is disposed of on-site in lined disposal units with leachate collection and removal systems. The ash leachate water is removed to a 2,000,000 gallon on-site leachate storage tank, then sent to an on-site leachate treatment plant, and the resulting treated water used as process water at the resource recovery facility.

2. Through mismanagement of the operation of the disposal units in ~~March~~ early 1997, incinerator ash was placed throughout the entire 10 acre unit referred to as disposal unit A-2, subjecting all stormwater which fell within A-2 to come in contact with ash and thus become leachate. In June 1997, design and operational problems caused the shutdown of the on-site leachate treatment plant and the inability to treat and remove generated leachate. Pasco accumulated leachate in the storage tank, which with the typical summer rains quickly was filled to capacity, and then ceased removal of leachate from the ash disposal units. With the treatment plant shutdown, and no effective alternate method for leachate treatment and removal, as of November 1997 the ash disposal units were already impounded with several feet of leachate.

3. During December 1997 through February 1998, the West central region of Florida was inundated by rainfall which surpassed previous historical records. Pasco County recorded 43.08 total inches of rainfall for the three month period.

4. On December 23, 1998, the United States Small Business Administration declared the west central Florida area a disaster

area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

5. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

6. The Department finds that this accumulation of rainfall has created a state of emergency at the Pasco RRF. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. In addition, Pasco, to date has been unable to restore the leachate treatment plant to full operation. As of March 11, 1998, the ash disposal units have ~~impounds~~ become IMPOUNDED to within 30 inches of the top of the liner. This has created a condition which has the potential to cause an overtopping or a breach and thus an uncontrolled release from the ash disposal units which contain large amounts of ash leachate water if normal rainfall is received in the coming months. THIS HAS ALSO CREATED A CONDITION IN WHICH THE INTEGRITY OF THE LINERS OF THE ASH DISPOSAL UNITS ~~[illegible]~~ ARE POTENTIALLY AT RISK DUE TO INCREASED ~~[illegible]~~ DEPTH ON THE LINER

7. An overtopping or a breach of the containment system could result in an uncontrolled and untreated release of the ash leachate water to the site stormwater management ponds, which are located in an area of highly permeable soils connected to the Floridan Aquifer. ~~and then to Bishop's Harbor~~ The effects of such an event would be THE POTENTIAL DEGREDATION OF GROUNDWATER QUALITY IN THE AREA AFFECTING THE DRINKING WATER SUPPLY. ~~[illegible]~~

8. Substantial hauling of leachate to a more appropriate discharge point, such as the cooling water discharge area at the Florida Power Corporation Anclote Power Plant would allow for a controlled release and appropriate treatment of the excess ash leachate water and would be both feasible to do at once and adequate to alleviate the emergency situation.

9. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm to the environment exists at this facility and emergency measures to relieve such conditions must be taken to restore the ash disposal cell to a safe operating status.

units

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the combination of design and operational problems and extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

1. Pasco, at a minimum, shall transport and discharge ash leachate (water & leachate) at the rate of not less than 300,000 gallons per day (not to exceed 0.1% leachate volume:cooling water volume) to the cooling water discharge canal at Florida Power Corporation Anclote Power Plant (FPC), at a location adjacent to the existing FPC point of discharge of cooling water into the cooling water discharge canal. This rate of hauling shall continue for 120 days or until Pasco has reduced the depth of leachate over the ~~bottom~~ PRIMARY liner~~s~~ of both disposal units A-1 and A-2 to less than 1 foot, whichever occurs first. In the event that, for any reason, the discharge of ~~ash~~ leachate to FPC must be reduced or discontinued, Pasco shall immediately notify the Department immediately and ~~within 7 days~~ arrange for ~~resumption of the rate of hauling~~ the continued transport and discharge at the rate of at least 300,000 per day to alternate Department approved treatment sources.

INSURE THAT AT LEAST 60,000 GALLONS PER DAY ARE TRANSPORTED TO THE CITY OF TAMPA WASTEWATER TREATMENT PLANT.

2. Pasco shall remove leachate exclusively from each disposal unit's leak detection system and from ash disposal unit A-2 until such time as the elevation of leachate in ~~ash disposal~~ unit ~~cell~~ A-2 is maintained at or below 50 feet NGVD. Removal shall continue to maintain leachate level at 50 feet NGVD or below in unit A-2, while commencing with removal of the impounded leachate in ~~ash disposal~~ unit A-1.

3. Upon leachate levels in ~~Cell~~ Unit A-2 reaching an elevation of 55 feet NGVD, Pasco shall commence with regrading and covering unit A-2 by the installation of a geomembrane cover to prevent further stormwater infiltration, designed to ~~either~~ collect stormwater on top of the cover and pump ~~it off or by sloping the top of the~~

~~Devel such that~~ the stormwater ~~drains~~ off the unit. Pasco shall complete installation of such according to the attached sketch (Exhibit ~~B~~ A) and the following schedule:

Covering Schedule:

Start	1st	@ El. 55,	Finish	1st	@ El. 54
"	2nd	@ El. 54,	"	2nd	@ El. 53
"	3rd	@ El. 53,	"	3rd	@ El. 52
"	4th	@ El. 52,	"	4th	@ El. 51
"	5th	@ El. 51,	"	5th	@ El. 50

"1st thru 5th" are the areas to be covered. "El." is the elevation of leachate in the unit at the time of cover installation.

4. Pasco County shall operate this disposal operation in a manner which insures that the leachate discharged shall **receive the treatment necessary (be discharged in such a manner as)** to minimize impacts to the environment. Should any adverse impacts occur (*e.g.*, mortality caused by Pasco ~~COUNTY's~~ County's discharge), Pasco County shall be liable for damages under chapter 403 of the Florida Statutes.

4. A mixing zone within the cooling water discharge canal shall be allowed *for all parameters listed in permit No. FL_____ (62-701(8)(c) Florida Administrative Code)* **for the discharge of the** treated **leachate to comply with Class III marine water quality standards of the State of Florida. The mixing zone shall measure 500 feet downstream from FPC's existing point of discharge of cooling water to the cooling water discharge canal. Pasco County is required to meet all Class III marine water quality standards at the edge of the above described mixing zone.**

5. Pasco County shall monitor water quality at the discharge location **[composite of 5 randomly selected tanker loads]**, and at a point **immediately (500 feet)** downstream from the point of discharge **[a 24 hour composite sample as well as a grab**

sample at slack ebb tide], for the **full list of permit parameters (parameters listed in 62-701(8)(c) Florida Administrative Code)** on a daily basis for the first week after initiation of this discharge activity, and on a weekly basis thereafter. *Pasco County is required to meet all Class III marine water quality standards at the above described point of monitoring.*

6. Pasco County shall monitor and report the discharge at the locations described in 5. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Gulf of Mexico for any adverse impacts on a daily basis. A report containing the results and conclusions from this monitoring and observation shall be submitted by 9:00 A.M. the following day to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or ~~my~~ b e-mail.

7. Pasco County shall conduct benthic macroinvertebrate sampling at locations **(500 feet, 1000 feet, and 1500 feet)** downstream of the discharge location during the first week after initiation of this discharge activity, and on a monthly basis thereafter. The results of these tests shall be submitted to the Department within 21 days following each sampling period.

8. Pasco County shall conduct sediment monitoring at the locations described in 7. above, collecting 3 samples across the width of the cooling water discharge canal (one at the center of the canal, and samples at locations mid-way between the center of the canal and the canal sides. This sediment monitoring shall

include analyses for aluminum, barium, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, silver, and zinc, and shall be conducted during the first week after initiation of this discharge activity, and on a bi-weekly basis thereafter. The results of these tests shall be submitted to the Department within 10 days following each sampling period.

9. Pasco County shall submit a weekly report, by facsimile (as well as on disc or by e-mail), including the results and interpretation of all monitoring performed. **The report shall also include the ~~operating levels, available freeboard and volumes of leachate in Cell A-2.~~** The report is to be sent to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or my e-mail.

10. The reporting requirements of paragraphs 6, 7, 8, and 9 shall continue for the duration of this order. The Department may revise the list of parameters, monitoring locations, and/or frequency of sampling based upon results and interpretations received.

11. The Department issues this Emergency Final Order solely to address the emergency created by **~~the rainfall accumulations as~~ previously described.** This Order does not authorize any activity other than that which is specifically outlined above. This Order does not settle any enforcement actions the Department has taken or will take in the future relative to the actions of Pasco County prior to the issuance of this Order or subsequent to this Order.

12. This Emergency Final Order shall take effect immediately and shall expire **within** 120 days from the date of execution set forth below.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which they party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS ____day of _____,1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Allisons Comments

In re:
EMERGENCY AUTHORIZATION FOR THE TRANSPORT AND DISCHARGE OF ASH LEACHATE FROM THE PASCO COUNTY RESOURCE RECOVERY FACILITY AT FLORIDA POWER CORPORATION ANCLOTE POWER PLANT MADE NECESSARY BY RECENT CHRONIC RAINFALL

CASE NO. 98-

_____/

EMERGENCY FINAL ORDER

Under Section 120.569(2)(l) of the Florida statutes, the State of Florida Department of Environmental Protection (Department) enters the following Emergency Final Order, including findings of fact and conclusions of law in response to excessive leachate impoundment in ash disposal units at the Pasco County (Pasco) Resource Recovery Facility(RRF) resulting from improper operation of their ash disposal ~~cells~~ units, a shutdown of their leachate treatment plant in June 1997 due to design and operational problems, and complicated ~~by~~ ions due to extremely high levels of rainfall which occurred in Pasco County during December 1997 through February 1998. ~~and which are expected to continue in the future.~~

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code(F.A.C.).

FINDINGS OF FACT

1. The Pasco RRF is located on Hays Road, North of S.R. 52 in Spring Hill, Florida. Pasco operates a solid waste

incinerator and various solid waste management facilities at the site. The incinerator ash is disposed of on-site in lined disposal units with leachate collection and removal systems. The ash leachate water is removed to a 2,000,000 gallon on-site leachate storage tank, then sent to an on-site leachate treatment plant, and the resulting treated water used as process water at the resource recovery facility.

2. Through mismanagement of the operation of the disposal units in ~~March~~ early 1997, incinerator ash was placed throughout the entire 10 acre unit referred to as disposal unit A-2, subjecting all stormwater which fell within A-2 to come in contact with ash and thus become leachate. In June 1997, design and operational problems caused the shutdown of the on-site leachate treatment plant and the inability to treat and remove generated leachate. Pasco accumulated leachate in the storage tank, which with the typical summer rains quickly was filled to capacity, and then ceased removal of leachate from the ash disposal units. With the treatment plant shutdown, and no effective alternate method for leachate treatment and removal, as of November 1997 the ash disposal units were already impounded with several feet of leachate.

3. During December 1997 through February 1998, the West central region of Florida was inundated by rainfall which surpassed previous historical records. Pasco County recorded 43.08 total inches of rainfall for the three month period.

4. On December 23, 1998, the United States Small Business Administration declared the west central Florida area a disaster

area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

5. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

6. The Department finds that this accumulation of rainfall has created a state of emergency at the Pasco RRF. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. In addition, Pasco, to date has been unable to restore the leachate treatment plant to full operation. As of March 11, 1998, the ash disposal units have become ~~impounds~~ IMPOUNDED to within 30 inches of the top of the liner. This has created a condition which has the potential to cause an overtopping or a breach and thus an uncontrolled release from the ash disposal units which contain large amounts of ash leachate water if normal rainfall is received in the coming months. THIS HAS ALSO CREATED A CONDITION IN WHICH THE INTEGRITY OF THE LINERS OF THE ASH DISPOSAL UNITS ~~[illegible]~~ ARE POTENTIALLY AT RISK DUE TO INCREASED

7. An overtopping or a breach of the containment system ~~[illegible]~~ LINER could result in an uncontrolled and untreated release of the ash leachate water to the site stormwater management ponds, which are located in an area of highly permeable soils connected to the Floridan Aquifer~~, and then to Bishop's Harbor~~. The effects of such an event would be THE POTENTIAL DEGRADATION OF GROUNDWATER QUALITY IN THE AREA AFFECTING THE ~~[illegible]~~ drinking water supply ~~[illegible]~~.

8. Substantial hauling of leachate to a more appropriate discharge point, such as the cooling water discharge area at the Florida Power Corporation Anclote Power Plant would allow for a controlled release and appropriate treatment of the excess ash leachate water and would be both feasible to do at once and adequate to alleviate the emergency situation.

9. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm to the environment exists at this facility and emergency measures to relieve such conditions must be taken to restore the ash disposal ~~cell~~ units to a safe operating status.

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the combination of ~~safe~~ design and operational problems and extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

1. Pasco, at a minimum, shall transport and discharge ash leachate at the rate of not less than 300,000 gallons per day (not to exceed 0.1% leachate volume:cooling water volume) to the cooling water discharge canal at Florida Power Corporation Anclote Power Plant (FPC), at a location adjacent to the existing FPC point of discharge of cooling water into the cooling water discharge canal. This rate of hauling shall continue for 120 days or until Pasco has reduced the depth of leachate over the bottom liners of both disposal units A-1 and A-2 to less than 1 foot, whichever occurs first. In the event that, for any reason, the discharge of ash leachate to FPC must be reduced or discontinued, Pasco shall notify the Department immediately and within 7 days arrange for resumption of the rate of hauling to alternate Department approved treatment sources.

2. Pasco shall remove leachate exclusively from each disposal unit's leak detection system and from ash disposal unit A-2 until such time as the elevation of leachate in ash disposal cell A-2 is maintained at or below 50 feet NGVD. Removal shall continue to maintain leachate level at 50 feet NGVD or below in A-2, while commencing with removal of the impounded leachate in ash disposal unit A-1.

3. Upon leachate levels in Cell A-2 reaching an elevation of 55 feet NGVD, Pasco shall commence with regrading and covering A-2 by the installation of a geomembrane cover to prevent further stormwater infiltration, designed to allow collect stormwater on top of the cover and pump it off or by sloping the top of the

~~cover such that~~ the stormwater ~~drains~~ off the unit. Pasco shall complete installation of such according to the attached sketch (Exhibit ~~XI~~ A) and the following schedule:

Covering Schedule:

Start	1st @ El. 55,	Finish	1st @ El. 54
"	2nd @ El. 54,	"	2nd @ El. 53
"	3rd @ El. 53,	"	3rd @ El. 52
"	4th @ El. 52,	"	4th @ El. 51
"	5th @ El. 51,	"	5th @ El. 50

"1st thru 5th" are the areas to be covered. "El." is the elevation of leachate in the unit at the time of covering in feet

4. Pasco County shall operate this disposal operation in a manner which insures that the leachate discharged shall **receive the treatment necessary (be discharged in such a manner as)** to minimize impacts to the environment. ~~Should any~~ adverse impacts occur (e.g., aquatic mortality caused by Pasco ~~COUNTY's~~ County's discharge), Pasco County shall be liable for damages under chapter 403 of the Florida Statutes.

4. A mixing zone within the cooling water discharge canal shall be allowed *for all parameters listed in* ~~*permit No.*~~ Rule ~~FL~~ *62-701.510(8)(c) Florida Administrative Code* **for the discharge of the treated leachate to comply with Class III marine water quality standards** + minimum criteria **of the State of Florida. The mixing zone shall measure 500 feet downstream from FPC's existing point of discharge of cooling water to the cooling water discharge canal. Pasco County is required to meet all Class III marine water quality standards** + minimum criteria **at the edge of the above described mixing zone.**

5. Pasco County shall monitor water quality at the discharge location **[composite of 5 randomly selected tanker loads]**, and at a point **immediately (500 feet)** downstream from the point of discharge **[a 24 hour composite sample as well as a grab**

Betty New stuff in blue Thanks, Allison

sample at slack ebb tide], for the full list of ~~permit~~ parameters all inorganic ~~parameters~~ listed in Rule 62-701.510(8)(c) Florida Administrative Code, and acetone on a daily basis for the first week after initiation of this discharge activity, and on a weekly basis thereafter. *Pasco County is required to meet all Class III marine water quality standards at the above described point of monitoring.*

6. Pasco County shall monitor and report the discharge at the locations described in 5. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Gulf of Mexico for any adverse impacts on a daily basis. A report containing the results and conclusions from this monitoring and observation shall be submitted by 9:00 A.M. the following day to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or ~~my~~ b e-mail.

7. Pasco County shall conduct benthic macroinvertebrate sampling at locations **(500 feet, 1000 feet, and 1500 feet)** downstream of the discharge location during the first week after initiation of this discharge activity, and on a monthly basis thereafter. The results of these tests shall be submitted to the Department within 21 days following each sampling period.

8. Pasco County shall conduct sediment monitoring at the locations described in 7. above, collecting 3 samples across the width of the cooling water discharge canal (one at the center of the canal, and samples at locations mid-way between the center of the canal and the canal sides. This sediment monitoring shall

include analyses for aluminum, barium, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, silver, and zinc, and shall be conducted during the first week after initiation of this discharge activity, and on a bi-weekly basis thereafter. The results of these tests shall be submitted to the Department within 10 days following each sampling period.

9. Pasco County shall submit a weekly report, by facsimile (as well as on disc or by e-mail), including the results and interpretation of all monitoring performed. **The report shall also include the ~~operating levels, available freeboard and volume of leachate in Cell A-8.~~** The report is to be sent to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or my e-mail.

10. The reporting requirements of paragraphs 6, 7, 8, and 9 shall continue for the duration of this order. The Department may revise the list of parameters, monitoring locations, and/or frequency of sampling based upon results and interpretations received.

11. The Department issues this Emergency Final Order solely to address the emergency created by **~~the rainfall accumulations as~~ previously described.** This Order does not authorize any activity other than that which is specifically outlined above. This Order does not settle any enforcement actions the Department has taken or will take in the future relative to the actions of Pasco County prior to the issuance of this Order or subsequent to this Order.

12. This Emergency Final Order shall take effect immediately and shall expire within 120 days from the date of execution set forth below.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which they party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS ____day of _____,1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____
VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

TO DIANA and CHARLES AND ANNA BOOTH KIMBROUGH

and Mr Hickey request

PER TUES AM 3/

Jim Bottone Tallahassee

Jenifer Fitzwater OGC

David Thulman OGC

Henry Dominic

Joe May Bob Boton

Allison Amram Steve Morgan

Charles Kovac

Craig Diltz Tallahassee

may Sean Richard Christian

TYPE DRAFT AT SIGNATURE FOR VIRGINIA

Ask FOR ANY SPECIFIC CHANGES

DEP ~~ROUTING AND~~ TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION)

1. Kim Ford
2.
3.
4.
5.

PLEASE PREPARE REPLY FOR:

____ SECRETARY'S SIGNATURE

____ DIV/DIST DIR SIGNATURE

____ MY SIGNATURE

____ YOUR SIGNATURE

____ DUE DATE _____

ACTION/DISPOSITION

____ DISCUSS WITH ME

____ COMMENTS/ADVISE

____ REVIEW AND RETURN

____ SET UP MEETING

✓ FOR YOUR INFORMATION

____ HANDLE APPROPRIATELY

____ INITIAL AND FORWARD

____ SHARE WITH STAFF

____ FOR YOUR FILES

COMMENTS:

FROM: Henry Cornwick DATE: 3/13/98 PHONE: 404

DEP 15-026 (12/93)

atlanta testing & engineering • atlanta testing & engineering • atlanta testing & engineering

1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

Prepared by:

ATLANTA TESTING & ENGINEERING
Tampa, Florida

March 6, 1998
AT&E Project No. 2440M

DEP ROUTING AND TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION)

1. Bob Butera
2.
3.
4.
5.

PLEASE PREPARE REPLY FOR:

____ SECRETARY'S SIGNATURE

____ DIV/DIST DIR SIGNATURE

____ MY SIGNATURE

____ YOUR SIGNATURE

____ DUE DATE _____

ACTION/DISPOSITION

____ DISCUSS WITH ME

____ COMMENTS/ADVISE

____ REVIEW AND RETURN

____ SET UP MEETING

____ FOR YOUR INFORMATION

✓ HANDLE APPROPRIATELY

____ INITIAL AND FORWARD

____ SHARE WITH STAFF

____ FOR YOUR FILES

COMMENTS:

FYI –

AA AA (not reviewed - disposal @ FPC reviewed by Tech Services)

KF

FROM: Henry Cominick DATE: 3/13/98 PHONE: 404

DEP 15-026 (12/93)

atlanta testing & engineering • atlanta testing & engineering • atlanta testing & engineering

1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

Prepared by:

ATLANTA TESTING & ENGINEERING
Tampa, Florida

March 6, 1998
AT&E Project No. 2440M

atlanta testing & engineering

Dept. SOUTH
BY

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

Bill we are returning your copy. Pls. let us know of any other inconsistencies such as the 200,000 gal/day so we can better assist you. Alan 3-9-98

atlanta testing
& engineering
1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

Prepared by:

ATLANTA TESTING & ENGINEERING
Tampa, Florida

March 6, 1998
AT&E Project No. 2440M

FDEP	3804 Coconut Palm Drive, Tampa, FL 33619-8318

FAX

FAXED

Date: 3-12-98

Number of pages including cover sheet: 11

To: David Thulman

Phone:

Fax phone:

CC:

From: Jim Ford

Phone: (813) 744-6100

Fax phone: (813) 744-6125

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please comment

atlanta testing
& engineering

Larry Maron

1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

or 941 648 4571

RECEIVED
MAR 0 6 1998
Department ... Protection
SOUTHWEST DISTRICT
BY

FROM CHARLES W
6pm
3/11/98
LCSW

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

Prepared by:

ATLANTA TESTING & ENGINEERING
Tampa, Florida

March 6, 1998
AT&E Project No. 2440M

DRAFT

THEREFORE, IT IS ORDERED:

3. That the Pasco County Leachate Management Facility (Pasco County), at a minimum, shall **treat and** discharge leachate at the rate of not less than 300,000 gallons per day (not to exceed 0.1% leachate volume:cooling water volume) to the cooling water discharge canal at Florida Power Corporation Anclote Power Plant (FPC), at a location adjacent to the existing FPC point of discharge of cooling water into the cooling water discharge canal.

4. Pasco County shall operate this disposal operation in a manner which insures that the leachate discharged shall **receive the treatment necessary (be discharged in such a manner as)** to minimize impacts to the environment. Should any adverse impacts occur (*e.g.*, mortality caused by Pasco County's discharge), Pasco County shall be liable for damages under chapter 403 of the Florida Statutes.

4. A mixing zone within the cooling water discharge canal shall be allowed ***for all parameters listed in*** *permit No. FL_____ (62-701(8)(c) Florida Administrative Code)* **for the discharge of the** treated **leachate to comply with Class III marine water quality standards of the State of Florida. The mixing zone shall measure 500 feet downstream from FPC's existing point of discharge of cooling water to the cooling water discharge canal. Pasco County is required to meet all Class III marine water quality standards at the edge of the above described mixing zone.**

5.. Pasco County shall monitor water quality at the discharge location **[composite of 5 randomly selected tanker loads]**, and at a point **immediately (500 feet)** downstream from the point of discharge **[a 24 hour composite sample as well as a grab sample at slack ebb tide]**, for the **full list of permit parameters (parameters listed in 62-701(8)(c) Florida Administrative Code)** on a daily basis for the first week after initiation of this discharge activity, and on a weekly basis thereafter. ***Pasco County is required to meet all Class III marine water quality standards at the above described point of monitoring.***

6. Pasco County shall monitor and report the discharge at the locations described in 5. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Gulf of Mexico for any adverse impacts on a daily basis. A report containing the results and

conclusions from this monitoring and observation shall be submitted by 9:00 A.M. the following day to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or my e-mail.

7. Pasco County shall conduct benthic macroinvertebrate sampling at locations **(500 feet, 1000 feet, and 1500 feet)** downstream of the discharge location during the first week after initiation of this discharge activity, and on a monthly basis thereafter. The results of these tests shall be submitted to the Department within 21 days following each sampling period.

8. Pasco County shall conduct sediment monitoring at the locations described in 7. above, collecting 3 samples across the width of the cooling water discharge canal (one at the center of the canal, and samples at locations mid-way between the center of the canal and the canal sides. This sediment monitoring shall include analyses for aluminum, barium, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, silver, and zinc, and shall be conducted during the first week after initiation of this discharge activity, and on a bi-weekly basis thereafter. The results of these tests shall be submitted to the Department within 10 days following each sampling period.

9. Pasco County shall submit a weekly report, by facsimile (as well as on disc or by e-mail), including the results and interpretation of all monitoring performed. **The report shall also include the operating levels, available freeboard and volume of leachate in Cell A-2.** The report is to be sent to the Department's Southwest District Office at fax number 813/744-6125. An electronic copy of this data shall also be submitted to the Department's Southwest District Office on disc or my e-mail.

10. The reporting requirements of paragraphs 6, 7, 8, and 9 shall continue for the duration of this order. The Department may revise the list of parameters, monitoring locations, and/or frequency of sampling based upon results and interpretations received.

11. The Department issues this Emergency Final Order solely to address the emergency created by **the rainfall accumulations as previously described**. This Order does not authorize any activity other than that which is specifically outlined above.

12. This Emergency Final Order shall take effect immediately and shall expire **within** 120 days from the date of execution set forth below.

Parameter	4/22/97	9/8/97	9/15/97	9/22/97	9/30/97	10/7/97	10/21/97	12/24/97	12/31/97	1/7/98	1/14/98	1/21/98	1/28/98	2/4/98	2/11/98	2/17/98	2/18/98	2/25/98	MAX	SW-STANDARD CLASS III MARINE	MULTIPLIER (MAX/STND)	% STND
Alkalinity as CaCO3	91	231	162	305	389	338	172												389	.		
Total Organic Carbon	19.8	41.2	59	56.7	35.9	38.5	14.4												59.0	.		
Chloride	4.6	22,419	17,216	29,110	23,120	28,072	18,737	20,558	49,991	45,435	35,259	33,485	36,557	42,095	29,985	36,298			49,991	*	3	263%
Fluoride	0.1	0.12	0.13	0.14	0.24	0.14	0.13												0.24	< 5.0		
Ammonia N	<0.07	22.4	13.2	28.9	27.2	23.7	13.3											32	32	0.08*****	400	
Ammonia (unionized)																		1.3	1.3	0.035*****	37	
Kjeldahl N	<0.07	22.6	13.4	28.6	26	24.6	13.6	10.2	48.4	15.1	40.8	41.2	34.4	41.0	28.2		30.2	37.1	48.4	.		
Nitrite	<0.01	0.03	0.02	0.06	<0.01	<0.01	<0.01												0.06	.		
Nitrate	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11												<0.11	.		
pH, Lab	7.9	7.33	7.07	7.05		7.47	7.14	7.52	8.7	6.74	7.38	7.44	7.4	7.46	7.18		7.66	8.58	8.70	6.5-8.5	1.02	
Total Phosphorus	0	0.3	0.11	0.17	0.09	0.18	0.21												0.30	.		
Total Dissolved Solids	103	82,500	69,400	98,500	58,900	64,100	45,400			129,000	111,600	156,200	87,600	93,200	79,400		64,800		156,200	.		
Total Suspended Solids		22	23	3	32	302	23	34	17	506	486	592	408	444	84		54	46	592	.		
Specific Conductivity	238	56,700	44,100	67,400	60,700	57,200	47,900			111,200	90,100	77,000	81,700	81,500	73,400	77,100	64,200	67,600	111,200	.		
Sulfate	11.6	454	472	546	449	429	378			560	603	632	573	557	474		747	618	747.0	.		
Aluminum	0	0.2	0.138	0.269	0.201	0.218	0.114									<0.20			0.269	< 1.5		
Arsenic	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.01		<0.01	<0.04	<0.04	< 0.036**	1.1	
Barium	0	3.05	2.73	3.16	3.05	2.16	2.04									2.0			3.16	.		
Cadmium	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.15	0.12	0.17	0.13	0.13	0.13	<0.002	<0.002	<0.005	<0.002	<0.002	0.170	< 0.0093	18	
Calcium	45.5	9,900	6,390	8,790	8,180	7,460	5,950												9,900	.		
Chromium	<0.001	<0.01	0.012	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01		0.011	<0.01	0.016	< 0.050***		
Copper	0	0.15	0.12	0.16	0.16	0.17	0.15	0.28	0.26	0.3	0.3	0.34	0.25	0.19	0.19	0.11	0.52	0.28	0.52	< 0.0029	179	
Iron	0	0.77	0.48	0.59	1.52	0.88	0.6									11			11.00	< 0.3	37	
Lead	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.3	1.82	1.58	1.69	<0.01	<0.01	0.031	0.012	<0.01	2.300	< 0.0056	411	
Magnesium	1.3	4.33	5.06	3.44	3.87	4.1	4.87									3.0			5.06	.		
Manganese	0	0.52	0.56	0.38	0.58	0.57	0.52									0.58			0.58	.		
Nickel	<0.07	0.61	0.4	0.59	0.52	0.57	0.46	1.19	1.03	1.19	0.92	1.04	1.11	0.36	0.65	<0.040	0.32	0.48	1.19	< 0.0083	143	
Potassium	2.1	3,170	2,470	3,680	3,370	3,300	2,390												3680.0	.		
Selenium	<0.001	<0.01	<0.07	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.04		<0.01	<0.04	0.012	< 0.071		
Silver	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.31	0.25	0.34	0.25	0.25	0.26	<0.002	<0.002	<0.010	<0.002	<0.002	0.3400	< 0.0023	148	
Sodium	4.6	4,360	3,990	5,640	5,210	5,120	3,900												5640.0	.		
Zinc	0.2	0.08	0.07	0.09	0.07	0.12	0.06	0.15	0.13	0.26	0.17	0.32	0.15	0.14	0.23	0.28	0.64	0.15	0.64	< 0.086	7	
BOD								436	294	288	143	169	251	213	153		198	222	436	****		

All concentrations in mg/l, except pH and specific conductivity (micromhos/cm)

*Not more than 10% above background; maintain daily and seasonal fluctuations background =19,000 mg/l

** trivalent (measured as total recoverable)

*** hexavalent

**** not increased to exceed values which would cause DO to be depressed below 4.0; not create nuisance conditions

*****EPA criteria @ 30 degrees C, pH 8.8

mgd cooling	mg/d leachate	dilution factor	% leachate: cooling	
0	0.3	0		
1986	0.2	9930	0.010%	example
1986	0.3	6620	0.015%	
123	0.3	2977	0.034%	
300	0.3	1000	0.100%	
123	0.3	411	0.243%	
0.3	0.3	1	100.000%	

Parameter	MAX	LOAD (lbs) 4 months	mg/kg 100 acres @ 6"	TEL mg/kg	PEL mg/kg	# ACRES @ WHICH EXCEEDS TEL	# ACRES @ WHICH EXCEEDS PEL
Alkalinity as CaCO3	389	79200.40	227.27				
Total Organic Carbon	59.0	12012.40	34.47				
Chloride	49,991	10178167.60	29207.32				
Fluoride	0.24	48.86	0.14				
Ammonia N	28.90	5884.04	16.88				
Kjeldahl N	48.4	9854.24	28.28				
Nitrite	0.06	12.22	0.04				
Nitrate	<0.11	20.36	0.06				
pH, Lab	8.70						
Total Phosphorus	0.30	61.08	0.18				
Total Dissolved Solids	156,200	31802320.00	91260.10				
Total Suspended Solids	592	120531.20	345.88				
Specific Conductivity	111,200						
Sulfate	747.0	152089.20	436.44				
Aluminum	0.269	54.77	0.16				
Arsenic	<0.04	7.94	0.02	7.24	41.6	0.3	0.1
Barium	3.16	643.38	1.85				
Cadmium	0.170	34.61	0.10	0.676	4.21	15	2
Calcium	9,900	2015640.00	5784.09				
Chromium	0.016	3.26	0.01	52.3	160	0.02	0.01
Copper	0.52	105.87	0.30	18.7	108	2	0.3
Iron	11.00	2239.60	6.43				
Lead	2.300	468.28	1.34	30.2	112	4	1
Magnesium	5.06	1030.22	2.96				
Manganese	0.58	118.09	0.34				
Nickel	1.19	242.28	0.70	15.9	42.8	4	2
Potassium	3680.0	749248.00	2150.05				
Selenium	0.012	2.44	0.01				
Silver	0.3400	69.22	0.20	0.733	1.77	27	11
Sodium	5640.0	1148304.00	3295.18				
Zinc	0.64	130.30	0.37	124	271	0.3	0.1
BOD	436	88769.60	254.73				
example	0.15	30.54	0.09				

	17-Feb-98	17-Feb-98			3-Mar-98	3-Mar-98			max	
Parameter	Total	Dissolved	Particulate	% Particulate	Total	Dissolved	Particulate	% Particulate	% particulate	Parameter
Al	<0.20	<0.20	0.19	100	0.024	0.017	0.007	29	100	Al
Ba	2.0	2.1	0.09	5	0.78	0.74	0.04	5	5	Ba
Cd	<0.0050	<0.0050	0.0049	100					100	Cd
Cu	0.11	<0.025	0.11	100					100	Cu
Fe	11	11	0.9	8					8	Fe
Pb	0.031	<0.0050	0.0261	84	<0.01	<0.01	0.009	100	100	Pb
Mg	3.0	3.1	0.09	3					3	Mg
Mn	0.58	0.58	0.009	2					2	Mn
Ni	<0.040	<0.040	0.039	100					100	Ni
Ag	<0.010	<0.010	0.009	100					100	Ag
Zn	0.28	0.066	0.214	76					76	Zn

A-2 SURFACE

	17-Feb-98	17-Feb-98			3-Mar-98	3-Mar-98			max	
Parameter	Total	Dissolved	Particulate	% Particulate	Total	Dissolved	Particulate	% Particulate	% particulate	Parameter
Al	0.99	<0.20	0.99	100	0.191	0.182	0.009	5	100	Al
Ba	0.79	0.76	0.03	4	0.98	1.09	0.009	1	4	Ba
Cd	0.026	0.022	0.004	15					15	Cd
Cu	0.095	0.072	0.023	24					24	Cu
Fe	0.24	<0.050	0.24	100					100	Fe
Pb	0.042	<0.0050	0.042	100	<0.01	<0.01	0.009	100	100	Pb
Mg	3.1	3.0	0.1	3					3	Mg
Mn	0.20	0.18	0.02	10					10	Mn
Ni	<0.040	<0.040	0.039	100					100	Ni
Ag	<0.010	<0.010	0.009	100					100	Ag
Zn	0.34	0.13	0.21	62					62	Zn

	max		
Parameter	% particulate		
Al	100	SUMP	SURFACE
Ba	5	SUMP	
Cd	100	SUMP	
Cu	100	SUMP	
Fe	100		SURFACE
Pb	100	SUMP	SURFACE
Mg	3	SUMP	SURFACE
Mn	10		SURFACE
Ni	100	SUMP	SURFACE
Ag	100	SUMP	SURFACE
Zn	76	SUMP	

Al	sediment		water	**Ammonia N**	0.08*****
Ba	sediment		water	**Ammonia (unionized)**	0.035*****
Cd	sediment		water	**Cadmium**	≤ 0.0093
Cu	sediment		water	**Copper**	≤ 0.0029
Fe	sediment		water	**Iron**	≤ 0.3
Pb	sediment		water	**Lead**	≤ 0.0056
Mg	sediment		water	**Nickel**	≤ 0.0083
Mn	sediment		water	**Silver**	≤ 0.0023
Ni	sediment		water	**Zinc**	≤ 0.086
Ag	sediment				
Zn	sediment			**Mercury**	?
				Dioxin	?
Hg	sediment	?			
Dioxin	sediment	?			

Transmit Confirmation Report

No.	:	001
Receiver	:	OGC-ENFORCEM
Transmitter	:	WASTE MGT TAMPA SWDIST
Date	:	Mar 12 98 9:25
Time	:	05'13
Mode	:	Norm
Pages	:	11
Result	:	OK

atlanta testing
& engineering

Larry Maron

1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

or 941 648 4571

From Charles K 6pm 3/11/98 KCK

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

Prepared by:

ATLANTA TESTING & ENGINEERING
Tampa, Florida

March 6, 1998
AT&E Project No. 2440M

DRAFT

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Ammonia (unionized)																		1.3	1.3	0.035*****	37	
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Nitrite	<0.01	0.03	0.02	0.06	<0.01	<0.01	<0.01												0.06	.		
Nitrate	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11												<0.11	.		
pH, Lab	7.9	7.33	7.07	7.05		7.47	7.14	7.52	8.7	6.74	7.38	7.44	7.4	7.46	7.18		7.66	8.58	8.70	6.5-8.5	1.02	
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Specific Conductivity	238	56,700	44,100	67,400	60,700	57,200	47,900			111,200	90,100	77,000	81,700	81,500	73,400	77,100	64,200	67,600	111,200	.		
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Barium	0	3.05	2.73	3.16	3.05	2.16	2.04									2.0			3.16	.		
Cadmium	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.15	0.12	0.17	0.13	0.13	0.13	<0.002	<0.002	<0.005	<0.002	<0.002	0.170	< 0.0093	18	
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Copper	0	0.15	0.12	0.16	0.16	0.17	0.15	0.28	0.26	0.3	0.3	0.34	0.25	0.19	0.19	0.11	0.52	0.28	0.52	< 0.0029	179	
Iron	0	0.77	0.48	0.59	1.52	0.88	0.6									11			11.00	< 0.3	37	
Lead	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.3	1.82	1.58	1.69	<0.01	<0.01	0.031	0.012	<0.01	2.300	< 0.0056	411	
Magnesium	1.3	4.33	5.06	3.44	3.87	4.1	4.87									3.0			5.06	.		
Manganese	0	0.52	0.56	0.38	0.58	0.57	0.52									0.58			0.58	.		
Nickel	<0.07	0.61	0.4	0.59	0.52	0.57	0.46	1.19	1.03	1.19	0.92	1.04	1.11	0.36	0.65	<0.040	0.32	0.48	1.19	< 0.0083	143	
Potassium	2.1	3,170	2,470	3,680	3,370	3,300	2,390												3680.0	.		
Selenium	<0.001	<0.01	<0.07	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.04	<0.04	<0.04	<0.04	<0.01	<0.04		<0.01	<0.04	0.012	< 0.071		
Silver	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.31	0.25	0.34	0.25	0.25	0.26	<0.002	<0.002	<0.010	<0.002	<0.002	0.3400	< 0.0023	148	
Sodium	4.6	4,360	3,990	5,640	5,210	5,120	3,900												5640.0	.		
Zinc	0.2	0.08	0.07	0.09	0.07	0.12	0.06	0.15	0.13	0.26	0.17	0.32	0.15	0.14	0.23	0.28	0.64	0.15	0.64	< 0.086	7	
BOD								436	294	288	143	169	251	213	153		198	222	436	****		

All concentrations in mg/l, except pH and specific conductivity (micromhos/cm)

*Not more than 10% above background; maintain daily and seasonal fluctuations background =19,000 mg/l

** trivalent (measured as total recoverable)

*** hexavalent

**** not increased to exceed values which would cause DO to be depressed below 4.0; not create nuisance conditions

*****EPA criteria @ 30 degrees C, pH 8.8

mgd cooling	mg/d leachate	dilution factor	% leachate: cooling	
0	0.3	0		
1986	0.2	9930	0.010%	example
1986	0.3	6620	0.015%	
123	0.3	2977	0.034%	
300	0.3	1000	0.100%	
123	0.3	411	0.243%	
0.3	0.3	1	100.000%	

Parameter	MAX	LOAD (lbs) 4 months	mg/kg 100 acres @ 6"	TEL mg/kg	PEL mg/kg	# ACRES @ WHICH EXCEEDS TEL	# ACRES @ WHICH EXCEEDS PEL
Alkalinity as CaCO3	389	79200.40	227.27				
Total Organic Carbon	59.0	12012.40	34.47				
Chloride	49,991	10178167.60	29207.32				
Fluoride	0.24	48.86	0.14				
Ammonia N	28.90	5884.04	16.88				
Kjeldahl N	48.4	9854.24	28.28				
Nitrite	0.06	12.22	0.04				
Nitrate	<0.11	20.36	0.06				
pH, Lab	8.70						
Total Phosphorus	0.30	61.08	0.18				
Total Dissolved Solids	156,200	31802320.00	91260.10				
Total Suspended Solids	592	120531.20	345.88				
Specific Conductivity	111,200						
Sulfate	747.0	152089.20	436.44				
Aluminum	0.269	54.77	0.16				
Arsenic	<0.04	7.94	0.02	7.24	41.6	0.3	0.1
Barium	3.16	643.38	1.85				
Cadmium	0.170	34.61	0.10	0.676	4.21	15	2
Calcium	9,900	2015640.00	5784.09				
Chromium	0.016	3.26	0.01	52.3	160	0.02	0.01
Copper	0.52	105.87	0.30	18.7	108	2	0.3
Iron	11.00	2239.60	6.43				
Lead	2.300	468.28	1.34	30.2	112	4	1
Magnesium	5.06	1030.22	2.96				
Manganese	0.58	118.09	0.34				
Nickel	1.19	242.28	0.70	15.9	42.8	4	2
Potassium	3680.0	749248.00	2150.05				
Selenium	0.012	2.44	0.01				
Silver	0.3400	69.22	0.20	0.733	1.77	27	11
Sodium	5640.0	1148304.00	3295.18				
Zinc	0.64	130.30	0.37	124	271	0.3	0.1
BOD	436	88769.60	254.73				
example	0.15	30.54	0.09				

	17-Feb-98	17-Feb-98			3-Mar-98	3-Mar-98			max	
Parameter	Total	Dissolved	Particulate	% Particulate	Total	Dissolved	Particulate	% Particulate	% particulate	Parameter
Al	<0.20	<0.20	0.19	100	0.024	0.017	0.007	29	100	Al
Ba	2.0	2.1	0.09	5	0.78	0.74	0.04	5	5	Ba
Cd	<0.0050	<0.0050	0.0049	100					100	Cd
Cu	0.11	<0.025	0.11	100					100	Cu
Fe	11	11	0.9	8					8	Fe
Pb	0.031	<0.0050	0.0261	84	<0.01	<0.01	0.009	100	100	Pb
Mg	3.0	3.1	0.09	3					3	Mg
Mn	0.58	0.58	0.009	2					2	Mn
Ni	<0.040	<0.040	0.039	100					100	Ni
Ag	<0.010	<0.010	0.009	100					100	Ag
Zn	0.28	0.066	0.214	76					76	Zn

	17-Feb-98	17-Feb-98			3-Mar-98	3-Mar-98			max	
Parameter	Total	Dissolved	Particulate	% Particulate	Total	Dissolved	Particulate	% Particulate	% particulate	Parameter
Al	0.99	<0.20	0.99	100	0.191	0.182	0.009	5	100	Al
Ba	0.79	0.76	0.03	4	0.98	1.09	0.009	1	4	Ba
Cd	0.026	0.022	0.004	15					15	Cd
Cu	0.095	0.072	0.023	24					24	Cu
Fe	0.24	<0.050	0.24	100					100	Fe
Pb	0.042	<0.0050	0.042	100	<0.01	<0.01	0.009	100	100	Pb
Mg	3.1	3.0	0.1	3					3	Mg
Mn	0.20	0.18	0.02	10					10	Mn
Ni	<0.040	<0.040	0.039	100					100	Ni
Ag	<0.010	<0.010	0.009	100					100	Ag
Zn	0.34	0.13	0.21	62					62	Zn

	max		
Parameter	% particulate		
Al	100	SUMP	SURFACE
Ba	5	SUMP	
Cd	100	SUMP	
Cu	100	SUMP	
Fe	100		SURFACE
Pb	100	SUMP	SURFACE
Mg	3	SUMP	SURFACE
Mn	10		SURFACE
Ni	100	SUMP	SURFACE
Ag	100	SUMP	SURFACE
Zn	76	SUMP	

Al	sediment		water	**Ammonia N**	0.08*****
Ba	sediment		water	**Ammonia (unionized)**	0.035*****
Cd	sediment		water	**Cadmium**	≤ 0.0093
Cu	sediment		water	**Copper**	≤ 0.0029
Fe	sediment		water	**Iron**	≤ 0.3
Pb	sediment		water	**Lead**	≤ 0.0056
Mg	sediment		water	**Nickel**	≤ 0.0083
Mn	sediment		water	**Silver**	≤ 0.0023
Ni	sediment		water	**Zinc**	≤ 0.086
Ag	sediment				
Zn	sediment			**Mercury**	?
				Dioxin	?
Hg	sediment	?			
Dioxin	sediment	?			

atlanta testing & engineering ∘ atlanta testing & engineering ∘ atlanta testing & en
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1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

KF
AA AA

March 10, 1998
AT&E Project No. 2440M

RECEIVED
MAR 10 1998
DEP

Attention: Henry Dominick, P.E.

Re: Addendum - Total & Dissolved Metals
Proposed Discharge of Ash Pond Leachate
Florida Power Corporation Anclote Power Plant
For Pasco County Utilities

Gentlemen:

On behalf of Pasco County (the County), Atlanta Testing & Engineering, Inc. (AT&E) is pleased to submit this addendum to AT&E's letter dated March 6, 1998 which provided information pertaining to the above-referenced subject. This letter transmits a revised Table 3 which contains updated information pertaining to the total and dissolved metals concentrations in the County's ash pond leachate. This information was not complete at the time of the March 6, 1998 submittal.

Based on the attached table, it appears that most of the metals are in a dissolved state the majority of the time. Aluminum, copper, lead and zinc concentrations declined varying amounts in the filtered samples indicating that some of these metal concentrations are in a particulate state. A copy of the laboratory's report is also attached.

Please utilize the enclosed material in your evaluation of the County's proposal as contained in AT&E's March 6, 1998 letter. We do not believe that this updated information materially affects the information previously provided to the DEP. If you have any questions, please do not hesitate to contact us.

Yours Very Truly,
ATLANTA TESTING & ENGINEERING

Lawrence J Maron

Lawrence J. Maron, P.E.
Principal

6 copies submitted

Attachments
Table 3
Laboratory report

cc: Robert Butera - DEP
Kim Ford - DEP
Doug Bramlett - Pasco County
Randy Melton - Florida Power Corporation

georgia • florida • carolinas
geotechnical and materials engineering, geology and hydrogeology, materials testing, nondestructive and specialty testing, exploratory drilling.
MEMBER ACEC

Table 3 (revised 3/9/98)
Total vs Dissolved Metals
County Ash Leachate

	A-2 SUMP				A-2 Surface Water			
	17-Feb-98		3-Mar-98		17-Feb-98		3-Mar-98	
Parameter	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
Aluminum	<0.20	<0.20	0.024	0.017	0.99	<0.20	0.191	0.182
Barium	2.0	2.1	0.78	0.74	0.79	0.76	0.98	1.09
Cadmium	<0.0050	<0.0050	<0.002	<0.002	0.026	0.022	0.005	0.009
Copper	0.11	<0.025	0.22	0.18	0.095	0.072	0.15	0.16
Iron	11	11	0.62	0.54	0.24	<0.050	0.26	0.26
Lead	0.031	<0.0050	<0.01	<0.01	0.042	<0.0050	<0.01	<0.01
Magnesium	3.0	3.1	3.46	3.33	3.1	3.0	2.9	3.02
Manganese	0.58	0.58	0.38	0.41	0.20	0.18	0.22	0.22
Nickel	<0.040	<0.040	0.56	0.54	<0.040	<0.040	0.25	0.28
Silver	<0.010	<0.010	<0.002	<0.002	<0.010	<0.010	<0.002	<0.002
Zinc	0.28	0.066	0.18	0.11	0.34	0.13	0.21	0.21

All concentrations reported in milligrams per liter (mg/l).

PASCO COUNTY, FLORIDA

ENVIRONMENTAL LABORATORY
8864 GOVERNMENT DRIVE
NEW PORT RICHEY, FL 34654
(813) 847-8902

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: VINCENT MANNELLA

DATE: 03/06/98
DHRS # 44237, E44123

SAMPLE NUMBER- 65096 SAMPLE ID- A-2 SUMP SAMPLE MATRIX- LE
DATE SAMPLED- 03/03/98 LOCATION- TIME SAMPLED- 0900
DATE RECEIVED- 03/03/98 SAMPLER- RAY BOERSTLER RECEIVED BY- AS
TIME RECEIVED- 0935 DELIVERED BY- RAY BOERSTLER

Page 1 of 2

ANALYSIS	METHOD	SAMPLE PREP DATE	BY	ANALYSIS DATE	TIME	BY	RESULT	UNITS
ALUMINUM,TOTAL	SM3113B	03/04/98	TER	03/06/98	1015	TER	0.024	mg/L
ALUMINUM,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1010	TER	0.017	mg/L
BARIUM,TOTAL	SM3113B	03/04/98	TER	03/06/98	0935	TER	0.78	mg/L
BARIUM,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	0935	TER	0.74	mg/L
CADMIUM,TOTAL	SM3113B	03/04/98	TER	03/06/98	1245	TER	<0.002	mg/L
CADMIUM,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1245	TER	<0.002	mg/L
COPPER,TOTAL	SM3113B	03/04/98	TER	03/06/98	1400	TER	0.22	mg/L
COPPER,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1400	TER	0.18	mg/L
IRON,TOTAL	SM3113B	03/04/98	TER	03/06/98	1410	TER	0.62	mg/L
IRON,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1410	TER	0.54	mg/L
LEAD,TOTAL	SM3113B	03/04/98	TER	03/06/98	1100	TER	<0.01	mg/L
LEAD,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1100	TER	<0.01	mg/L
MAGNESIUM,TOTAL	SM3111B	03/04/98	TER	03/06/98	1500	TER	3.46	mg/L
MAGNESIUM,DISSOLVED	SM3111B	03/04/98	TER	03/06/98	1500	TER	3.33	mg/L
MANGANESE,TOTAL	SM 3113B	03/04/98	TER	03/06/98	1450	TER	0.38	mg/L
MANGANESE,DISSOLVED	SM3113B			03/06/98	1450	TER	0.41	mg/L
NICKEL,TOTAL	SM3113B	03/04/98	TER	03/06/98	1420	TER	0.56	mg/L
NICKEL,DISSOLVED	SM3113B			03/06/98	1420	TER	0.54	mg/L
SILVER,TOTAL	SM3113B	03/04/98	TER	03/06/98	1140	TER	<0.002	mg/L
SILVER,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1145	TER	<0.002	mg/L
ZINC,TOTAL	SM3111B	03/04/98	TER	03/06/98	1435	TER	0.18	mg/L

PASCO COUNTY, FLORIDA

ENVIRONMENTAL LABORATORY
8864 GOVERNMENT DRIVE
NEW PORT RICHEY, FL 34654
(813) 847-8902

CONTINUATION OF DATA FOR SAMPLE NUMBER 65096

ANALYSIS	METHOD	SAMPLE PREP DATE	BY	ANALYSIS DATE	TIME	BY	RESULT	UNITS
ZINC,DISSOLVED	SM3111B	03/04/98	TER	03/06/98	1435	TER	0.11	mg/L

LABORATORY DIRECTOR

PASCO COUNTY, FLORIDA

ENVIRONMENTAL LABORATORY
8864 GOVERNMENT DRIVE
NEW PORT RICHEY, FL 34654
(813) 847-8902

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: VINCENT MANNELLA

DATE: 03/06/98
DHRS # 44237, E44123

SAMPLE NUMBER- 65097 SAMPLE ID- A-2 SURFACE WATER SAMPLE MATRIX- LE
DATE SAMPLED- 03/03/98 LOCATION- TIME SAMPLED- 0905
DATE RECEIVED- 03/03/98 SAMPLER- RAY BOERSTLER RECEIVED BY- AS
TIME RECEIVED- 0935 DELIVERED BY- RAY BOERSTLER

ANALYSIS	METHOD	SAMPLE PREP DATE	BY	ANALYSIS DATE	TIME	BY	RESULT	UNITS
ALUMINUM,TOTAL	SM3113B	03/04/98	TER	03/06/98	1015	TER	0.191	mg/L
ALUMINUM,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1010	TER	0.182	mg/L
BARIUM,TOTAL	SM3113B	03/04/98	TER	03/06/98	0935	TER	0.98	mg/L
BARIUM,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	0935	TER	1.09	mg/L
CADMIUM,TOTAL	SM3113B	03/04/98	TER	03/06/98	1245	TER	0.005	mg/L
CADMIUM,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1245	TER	0.009	mg/L
COPPER,TOTAL	SM3113B	03/04/98	TER	03/06/98	1400	TER	0.15	mg/L
COPPER,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1400	TER	0.16	mg/L
IRON,TOTAL	SM3113B	03/04/98	TER	03/06/98	1410	TER	0.26	mg/L
IRON,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1410	TER	0.26	mg/L
LEAD,TOTAL	SM3113B	03/04/98	TER	03/06/98	1100	TER	<0.01	mg/L
LEAD,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1100	TER	<0.01	mg/L
MAGNESIUM,TOTAL	SM3111B	03/04/98	TER	03/06/98	1500	TER	2.90	mg/L
MAGNESIUM,DISSOLVED	SM3111B	03/04/98	TER	03/06/98	1500	TER	3.02	mg/L
MANGANESE,TOTAL	SM 3113B	03/04/98	TER	03/06/98	1450	TER	0.22	mg/L
MANGANESE,DISSOLVED	SM3113B			03/06/98	1450	TER	0.22	mg/L
NICKEL,TOTAL	SM3113B	03/04/98	TER	03/06/98	1420	TER	0.25	mg/L
NICKEL,DISSOLVED	SM3113B			03/06/98	1420	TER	0.28	mg/L
SILVER,TOTAL	SM3113B	03/04/98	TER	03/06/98	1140	TER	<0.002	mg/L
SILVER,DISSOLVED	SM3113B	03/04/98	TER	03/06/98	1145	TER	<0.002	mg/L
ZINC,TOTAL -	SM3111B	03/04/98	TER	03/06/98	1435	TER	0.21	mg/L

PASCO COUNTY, FLORIDA

CONTINUATION OF DATA FOR SAMPLE NUMBER 65097

ANALYSIS	METHOD	SAMPLE PREP DATE	BY	ANALYSIS DATE	TIME	BY	RESULT	UNITS
ZINC,DISSOLVED	SM3111B	03/04/98	TER	03/06/98	1435	TER	0.21	mg/L

LABORATORY DIRECTOR

STEVE
your copy
BOB

W PASCO

ATTACHED

1. PASCO COUNTY'S REQUEST 2/25/98
2. SW CONDITIONS/ORDERS 3/6/98
3. SECRETARY'S BRIEFING 1/22/98
4. 3 EMERGENCY ORDERS AS EXAMPLES (FROM CHARLES)

CHARLES WILL PROVIDE HIS CONDITIONS/ORDERS TOMORROW TO INCLUDE IN OUR E.O.

I HOPE THE EO IS COMPLETED AT LEAST IN DRAFT BEFORE OUR THURSDAY MEETING

3/10/98

BOB

GW PASCO

ATTACHED

1. PASCO COUNTY'S REQUEST 2/25/98
2. 5 W CONDITIONS & ORDERS 3/6/98
3. SECRETARY'S BRIEFING 1/22/98
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3/10/98

PASCO COUNTY, FLORIDA

DADE CITY (352) 521-4274
LAND O' LAKES (813) 996-7341
NEW PORT RICHEY (813) 847-8145
FAX (813) 847-8064

UTILITIES SERVICES BRANCH
PUB. WKS./UTILITIES BLDG., S-213
7530 LITTLE ROAD
NEW PORT RICHEY, FL 34654

February 25, 1998

Dr. Richard D. Garrity, Ph.D.
Director of District Management
Florida Department of
Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

RE: Ash Leachate Disposal Proposal

Dear Dr. Garrity:

Please accept this letter as Pasco County's formal request that you consider and issue an Administrative Order to allow the one-time disposal of up to 30 million gallons of ash leachate (currently stored within the West Pasco Class I Landfill) at the Florida Power Corporation Anclote Plant disposal ponds in southwest Pasco County.

As you are aware, Pasco County is currently working on a technical report which will provide your office with reasonable assurances that our ash leachate can be blended with the normal Power Plant industrial and domestic waste discharges and not cause any environmental problems or exceed discharge limits which are currently permitted. Our schedule is to submit our report directly to Mr. Henry Dominick, P.E., Industrial Waste Section, no later than Friday, March 6, 1998.

We will expedite our bidding process to transport the ash leachate so that we can begin this transport and disposal operation no later than April 1, 1998. We have also drafted an agreement with Florida Power Corporation which has been forwarded to Mr. Randy Melton for review and comments.

We again request your assistance and cooperation in this most critical problem and we will continue to work with your staff as needed to begin the transport at the earliest possible date.

Sincerely,

Douglas S. Bramlett
Assistant County Administrator
(Utilities Services)

DSB/mvv/18\garrity

cc: Robert J. Butera, P.E. III, Division of Waste Management, FDEP, Tampa, FL
Henry B. Dominick, P.E. III, Industrial Waste Section, FDEP, Tampa, FL
Lawrence Maron, P.E., Principal Consultant, Atlanta Testing & Engineering, 1211 Tech Blvd., Suite 200, Tampa, FL 33619
Randy Melton, Florida Power Corporation, Post Office Box 14042-H2G, St. Petersburg, FL 33733
John J. Gallagher, County Administrator
Karla Stetter, County Attorney

1. Within 10 days of execution of this Order, Pasco shall commence hauling of leachate to the Anclote Power Plant at a rate of at least 300,000 gallons per day, seven days per week. This rate of hauling shall continue until Pasco has reduced the depth of leachate over the bottom liners of both ~~cells~~ disposal units A-1 and A-2 to less than 1 foot; Pasco County ~~provides~~ shall provide written documentation of such to the Department weekly and; the Department confirms such reduction has occurred.

2. ~~Within 7 days of~~ The day that the disposal unit leachate level~~s~~ in ~~cell~~ A-2 reach~~ing~~ an elevation of 55 feet NGVD, Pasco County shall commence with ~~regrading and~~ covering A-2 by the installation of a ~~main cell~~ geomembrane cover to prevent further stormwater infiltration, designed to either collect stormwater on top of the cover and pumping it off or by sloping the top of the cover such that stormwater drains off the ~~cell.~~ unit Pasco shall complete installation of cover at the rate of at least one acre per week for 6 weeks, for a total of at least 6 acres of disposal unit is covered with a geomembrane ~~such within days of beginning installation.~~

Rob
State will draft order for Pasco review
Any comments on this?
KCW 3/6/98

1/22/98 11:25:35 AM
Robert Butera TPA
ct: Topic for Rick's Meeting for the Secretary - Solid Waste
Norton Mac Craig TPA
William Kutash TPA
c: Kim Ford TPA
cc: Steve Morgan TPA

Pasco County Landfill - Substantial lack of compliance at the West Pasco Class I Landfill (Cells A-1, A-2, and SW-1.

Pasco County opened 10 acres of landfill area (an area that was segmented in thirds) such that rainfall accumulating on segments, not disposed in, should have been treated as stormwater. The County disposed in all zones thereby subjecting the whole area to leachate prior to requesting approval from the Department. This process was implemented and not approved by the Department. The Department strongly advised against such action, however the county insisted that the new Leachate Treatment Plant could handle all leachate generated.

The new Leachate Treatment Plant permit issued in 1996 required construction completion by
March 1, 1997. The Leachate Treatment Plant was shut down in June of 1997 due to significant operational problems and has not been used since then.

Due to the ongoing rainfall and significant noncompliance issues the ash disposal cell (A-2) has over 20,000,000 gallons of leachate. The leachate head on the liner exceeds the maximum one foot depth as required by the Department's Solid Waste Rule (F.S. 62-701). Leakage rates increase exponentially with head over the liner. The current head appears to be 13 feet.

Pasco County is currently hauling 50,000 gallons of leachate per day to two WWTP's. At this rate of hauling the landfill could be out of compliance for years due to additional rainfall and inadequate quantities of leachate being hauled. Pasco County has refused to haul leachate long distances which is routinely practiced at other solid waste facilities in their efforts to be in compliance.

This only addresses the most significant violation at the site. There are others including impounded leachate in Cell SW-1.

I can provide for Rick supporting documentation such as an inspection report, Rick's letter to John Gallagher, etc.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY AUTHORIZATION FOR
THE DISCHARGE OF TREATED PROCESS
WASTEWATER FROM THE CF INDUSTRIES , INC.
PROCESS WATER SYSTEM MADE NECESSARY BY
RECENT CHRONIC RAINFALL
_____/

CASE NO. 98-0048

FIRST AMENDED EMERGENCY FINAL ORDER

The State of Florida Department of Environmental Protection (Department) finds that the emergency conditions caused by severe storms and flooding are continuing, and that the Emergency Final Order entered on January 12, 1998, must be further extended and modified to reflect changes in conditions since entry of that order. Therefore, in accordance with section 120.569(2)(1) of the Florida Statutes, the January 12, 1998 order is amended by replacing it with the following:

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code (F.A.C.).

FINDINGS OF FACT

1. The CF INDUSTRIES, INC., (CFI) Plant City Phosphate Complex is located on Highway 39 and the Hillsborough/Pasco County Line. CFI operates a phosphatic fertilizer chemical processing plant at this site. The facility manufactures sulfuric acid, phosphoric acid, granulated triple superphosphate, and mono-ammonium phosphate products. The process water used in the production process is contained and recirculated in a 93 acre lined cooling pond system. Process water is also stored in cells maintained within the adjacent 525 acre phosphogypsum stack.

2. During December 1997, the West Central region of Florida was inundated by rainfall which surpassed previous historical records. Hillsborough County recorded 15.57 total inches of

rainfall for the month of December. The previous record for this month was 8.98 inches. The CFI Complex recorded 19.47 inches for the month.

3. On December 23, 1997, the United States Small Business Administration declared the west central Florida area a disaster area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

4. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

5. The Department finds that this accumulation of rainfall has created a state of emergency at the CFI Plant City Phosphate Complex. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. This has created a condition which has the potential to cause an overtopping or a breach and thus an uncontrolled release from the impoundments which contain large amounts of acidic process water if normal rainfall is received in the coming months.

6. An overtopping or a breach of the containment system could result in an uncontrolled and untreated release of the process water to the Hillsborough River. The effects of such an event would likely be devastating on the river ecosystem and would create a risk to the public health, safety and welfare.

7. A controlled release and appropriate treatment of the excess process water is a feasible and adequate means to alleviate the emergency situation. CFI has been implementing treatment and discharge since December 27, 1997.

8. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm continues to exist at this facility and emergency measures to relieve such conditions must be continued to restore the process water system to a safe operating status.

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

3. That CFI, at a minimum, continue to double lime treat and discharge process water in excess of the "must treat" level as defined in 40 CFR, Part 418.12(b) from the facility.

4. CFI shall operate the treatment system in a manner which ensures that the wastewater discharged shall receive the treatment necessary to minimize impacts to the environment. Should any adverse impacts occur (i.e., mortality caused by CFI's discharge), CFI shall be liable for damages under chapter 403 of the Florida Statutes.

5. CFI shall monitor the water quality at the discharge location and at a location approximately 1600 meters downstream of the discharge in Big Ditch for the full list of permit parameters on a weekly basis.

6. CFI shall monitor and report the discharge at the locations described in 5. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to the Hillsborough River for any adverse impacts on a daily basis. The report shall be submitted by 9:00 am the following day to the Department's Phosphate Management Office at fax number 813/744-6457.

7. CFI shall submit a weekly report, by facsimile, of the results of all water quality monitoring performed by the facility, excepting those requirements in paragraph 6. The report shall

also include the operating levels, available freeboard and volume of process water in the cooling pond, on the gypsum stack and in the perimeter channel areas. The report is to be sent to the Department's Phosphate Management Office at fax number 813/744-6457.

8. CFI shall conduct benthic macroinvertebrate sampling at locations upstream and downstream of the discharge location monthly. The results of these tests shall be submitted to the Department within 21 days following each sampling period.

9. The reporting requirements of paragraphs 5, 6, 7, and 8 shall continue for the duration of this order.

10. The Department issues this Emergency Final Order solely to address the emergency created by the rainfall accumulations as previously described. This Order does not authorize any activity other than that which is specifically outlined above.

11. The Emergency Final Order entered on January 12, 1998, shall have a retroactive effective date of December 28, 1997.

12. This First Amended Emergency Final Order shall take effect immediately and shall expire within 120 days from the date of execution set forth below or whenever the process water level drops below the "must treat level," whichever occurs first.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental Protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which the party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS 25th day of February, 1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell

VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this Order and all copies were mailed by certified mail the close of business on 25th day of February 1998 to the listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Janice Burgess 2/25/98
[CLERK DATE]

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY AUTHORIZATION FOR THE
DISCHARGE OF TREATED PROCESS
WASTEWATER FROM THE PINEY POINT, INC.
PROCESS WATER SYSTEM MADE NECESSARY BY
RECENT CHRONIC RAINFALL
_____/

CASE NO. 98-0187

EMERGENCY FINAL ORDER

Under Section 120.569(2)(1) of the Florida Statutes, the State of Florida Department of Environmental Protection (Department) enters the following Emergency Final Order, including findings of fact and conclusions of law in response to excessive water inventories at the Piney Point Phosphates, Inc. ("Piney Point") complex resulting from extremely high levels of rainfall which occurred in Manatee County during December 1997 and which is expected to continue in the future.

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code (F.A.C.).

FINDINGS OF FACT

1. The Piney Point complex is located on U. S. Highway 41 North in Palmetto, Florida. Piney Point operates a phosphatic fertilizer chemical processing plant at this site. The facility manufactures sulfuric acid, phosphoric acid and granulated ammonium phosphate products. The process water used in the production process is contained and recirculated in a 100 acre cooling pond system. Process water is also stored in cells maintained within the adjacent 210 acre phosphogypsum stack ponds.

2. During December 1997, the West Central region of Florida was inundated by rainfall which surpassed previous historical records. Manatee County recorded 11.94 total inches of rainfall for the month of December. Normal rainfall for Manatee County in December is 2.26 inches. The 11.94 inches recorded in December at Piney Point is nearly double the previous record amount. Between September 1997 and December 1997, 33.62 inches of rain were recorded at the Piney Point site. Additionally 6.22 inches of rain has fallen in the County during January of this year.

3. On December 23, 1997, the United States Small Business Administration declared the west central Florida area a disaster area based on damages to homes and businesses caused by severe storms and flooding which occurred on the 12th through the 14th of December, 1997.

4. The Office of the President of the United States, on January 6, 1998, issued a Major Disaster Declaration No. FEMA-1195-DR-FL for the West Central Florida area based on the damages caused by severe storms and flooding beginning December 23, 1997 and continuing.

5. The Department finds that this accumulation of rainfall has created a state of emergency at the Piney Point Complex. The excessive rainfall has accumulated at a rate which far exceeds the safe storage and management capabilities of the facility. This has created a condition which has the potential to cause an overtopping or a breach and thus an uncontrolled release from the impoundments which contain large amounts of acidic process water if normal rainfall is received in the coming months.

6. An overtopping or a breach of the containment system could result in an uncontrolled and untreated release of the process water to the Buckeye Road Ditch and then to Bishop's Harbor. The effects of such an event would be devastating to the ecosystem, would create a risk to the public health and welfare, and would result in severe property damage.

7. A controlled release and appropriate treatment of the excess process water would be both feasible to do at once and adequate to alleviate the emergency situation.

The effects of such an event would be devastating to the ecosystem, would create a risk to the public health and welfare, and would result in severe property damage.

7. A controlled release and appropriate treatment of the excess process water would be both feasible to do at once and adequate to alleviate the emergency situation.

8. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm to the environment exists at this facility and emergency measures to relieve such conditions must be taken to restore the process water system to a safe operating status.

CONCLUSIONS OF LAW

1. Section 120.569(2)(1) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

3. That Piney Point shall treat and discharge process water in excess of the "must treat" level as defined in Permit No. FL0000124 and in accordance with 40 CFR, Part 418.12(b) from the facility.

4. Piney Point shall operate the treatment system in a manner which ensures that the wastewater discharged shall receive the treatment necessary to minimize impacts to the environment. Should any adverse impacts occur (i.e., mortality caused by Piney Point's discharge), Piney Point shall be liable for damages under chapter 403 of the Florida Statutes.

5. Piney Point shall monitor the water quality at the discharge location and at the point immediately downstream from the point of mixing with the deep well water supply source for the full list of permit parameters on a weekly basis.

6. Piney Point shall monitor and report the discharge at the locations described in 6. above for pH, conductivity, and dissolved oxygen, as well as visually inspect the receiving water from the discharge point to Bishops Harbor and/or Tampa Bay for any adverse impacts on a daily basis. The report shall be submitted by 9:00 Am the following day to the Department's Phosphate Management Office at fax number 813/ 744-6457.

7. Piney Point shall submit a weekly report, by facsimile, of the results of all water quality monitoring performed by the facility, excepting those requirements in paragraph 7. to the Department's Phosphate Management Office at fax number 813/ 744-6457.

8. The reporting requirement of paragraphs 5, 6, and 7 shall continue for the duration of this order.

9. The Department issues this Emergency Final Order solely to address the emergency created by the rainfall accumulations as previously described. This Order does not authorize any activity other than that which is specifically outlined above.

10. This Emergency Final Order shall take effect retroactive to January 29, 1998, and expire within 90 days from the date of execution set forth below or whenever the process water level drops below the "must treat level" whichever comes first.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental Protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which the party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS 6th day of February, 1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell

VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara O'Neal 2/6/98
Clerk **Date**

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
EMERGENCY AUTHORIZATION FOR
ZONE OF MIXING TO ALLOW FOR THE
DISCHARGE OF TREATED PROCESS
WASTEWATER FROM THE CF INDUSTRIES, INC.
PROCESS WATER SYSTEM MADE NECESSARY BY
RECENT CHRONIC RAINFALL

CASE NO. 98-0048

EMERGENCY FINAL ORDER

Under Section 120.569(2)(l) of the Florida Statutes, the State of Florida Department of Environmental Protection (Department) enters the following Emergency Final Order, including findings of fact and conclusions of law in response to catastrophic flooding which occurred in Hillsborough County during December 1997.

DEFINITIONS

The terms used in the Order are those defined generally in Title 62 of the Florida Administrative Code (F.A.C.).

FINDINGS OF FACT

1. The CF INDUSTRIES, INC., (CFI) Plant City Phosphate Complex is located on Highway 39 and the Hillsborough/Pasco County Line. CFI operates a phosphatic fertilizer chemical processing plant at this site. The facility manufactures sulfuric acid, phosphoric acid, granulated triple superphosphate, and mono-ammonium phosphate products. The process water used in the production process is contained and recirculated in a 93 acre lined cooling pond system. Process water is also stored in cells maintained within the adjacent 410 acre phosphogypsum stack.

2. During December 1997, the West Central region of Florida was inundated by rainfall which surpassed previous historical records. Hillsborough County recorded 15.57 total inches of rainfall for the month of December. The previous record for this month was 8.98 inches.

3. The Department finds that this accumulation of rainfall has created a state of emergency at the CFI Plant City Phosphate Complex. The excessive rainfall has accumulated at a rate which far exceeds the storage and management capabilities of the facility. This has created a condition which seriously jeopardizes the available storage within the impoundments which contain billions of gallons of acidic process water.

4. The damages to the Hillsborough River due to the overtopping or a breach of the containment system would result in an uncontrolled and untreated release of the process water. The effects of such an event would be devastating and would create an extreme risk threatening the public health, and safety. A release of untreated process water on December 7, 1997 to the Alafia river in Polk county from a phosphate chemical plant is evidence of the severe damages of such a release.

5. A controlled release and appropriate treatment of the excess process water would be both feasible to do at once and adequate to alleviate the emergency situation.

6. Based on the conditions described above, the Department has determined that the potential for disaster and imminent harm exists at this facility and emergency measures to relieve such conditions must be taken to restore the process water system to a safe operating status.

CONCLUSIONS OF LAW

1. Section 120.569(2)(l) of the Florida Statutes gives the Department the authority to issue an Emergency Final Order if, as agency head, I find that an immediate danger to the public health, safety, or welfare so requires and the Order recites with particularity the facts underlying that conclusion.

2. Based on the findings recited above, I find and conclude that the emergency caused by the extreme weather conditions requires an immediate Order of the Department to protect the public health, safety, and welfare.

THEREFORE, IT IS ORDERED:

3. That CFI, at a minimum, double lime treat and discharge process water in excess of the "must treat" level as defined in 40 CFR, Part 418.12(b) from the facility.

4. A mixing zone within Big Ditch (a tributary to the Hillsborough River) shall be allowed for all parameters listed in permit No. FL0000078 for the discharge of the treated process water to comply with Class III water quality standards of the State of Florida. The mixing zone shall measure 800 meters downstream from the CFI point of discharge to Big Ditch.

5. CFI is required to meet all water quality limitations as contained in the existing NPDES permit No. FL000078 at the edge of the above described mixing zone.

6. CFI shall monitor the water quality in the Hillsborough river immediately upstream and downstream of the confluence of Big Ditch and the Hillsborough river for those parameters contained in the above referenced wastewater permit. The sampling shall be done weekly for the duration of this Order.

7. The Department issues this Emergency Final Order solely to address the emergency created by the rainfall accumulations as previously described. This Order does not authorize any activity other than that which is specifically outlined above.

8. This Emergency Final Order shall take effect immediately and expire within thirty days from the date of execution set forth below, unless modified or extended by further Order.

NOTICE OF RIGHTS

Any party adversely affected by this Emergency Final Order is entitled to judicial review under section 120.68 of the Florida Statutes. The Florida Rules of Appellate Procedure govern the review proceedings. Such proceedings are commenced by filing one copy of a notice of appeal with the Agency Clerk of the Department of Environmental Protection and a second copy, accompanied by filing fees prescribed by law, with the First District Court of Appeal or with the district court of appeal in the appellate district in which the party resides. The notice of appeal must be filed within thirty days of rendition of the Order to be reviewed.

DONE AND ORDERED ON THIS 12th day of January, 1998, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell

VIRGINIA B. WETHERELL
Secretary

Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
Telephone: (850) 488-1554

cc: U.S. Army Corps of Engineers, Jacksonville
Hillsborough County
Pasco County

END

Date: 3/10/98 05:13:57 PM
From: Robert Butera TPA
Subject: Re: FWD: Pasco CO Landfill leachate
To: Mary Jean Yon TAL
CC: Steve Morgan TPA
CC: Kim Ford TPA

Rather that be long winded, I will attach some background that I drafted for Rick to include in "Hot Issues" for each program for the Secretary's Office. I will have Kim and/or Steve get back to you tomorrow on some specific orders that may be included as a result of in-house meetings. We will have David Thulman review the EO. We should have a rough draft by Friday.

Date: 1/22/98 11:25:35 AM
From: Robert Butera TPA
Subject: Topic for Rick's Meeting for the Secretary - Solid Waste

Pasco County Landfill - Substantial lack of compliance at the West Pasco Class I Landfill (Cells A-1, A-2, and SW-1.

Pasco County opened 10 acres of landfill area (an area that was segmented in thirds) such that rainfall accumulating on segments, not disposed in, should have been treated as stormwater. The County disposed in all zones thereby subjecting the whole area to leachate prior to requesting approval from the Department. This process was implemented and not approved by the Department. The Department strongly advised against such action, however the county insisted that the new Leachate Treatment Plant could handle all leachate generated.

The new Leachate Treatment Plant permit issued in 1996 required construction completion by
March 1, 1997. The Leachate Treatment Plant was shut down in June of 1997 due to significant operational problems and has not been used since then.

Due to the ongoing rainfall and significant noncompliance issues the ash disposal cell (A-2) has over 20,000,000 gallons of leachate. The leachate head on the liner exceeds the maximum one foot depth as required by the Department's Solid Waste Rule (F.S. 62-701). Leakage rates increase exponentially with head over the liner. The current head appears to be 13 feet.

Pasco County is currently hauling 50,000 gallons of leachate per day to two WWTP's. At this rate of hauling the landfill could be out of compliance for years due to additional rainfall and inadequate quantities of leachate being hauled. Pasco County has refused to haul leachate long distances which is routinely practiced at other solid waste facilities in their efforts to be in compliance.

This only addresses the most significant violation at the site. There are others including impounded leachate in Cell SW-1.

I can provide for Rick supporting documentation such as an inspection report, Rick's letter to John Gallagher, etc.

atlanta testing
& engineering

CHARLES
HOURS
FOR
REVIEW
KLM
3/9/98

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

CC Bill K
Bob B
Allison A
Steve M

atlanta testing
& engineering
1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

FLORIDA POWER CORPORATION
ANCLOTE POWER PLANT
FOR PASCO COUNTY UTILITIES

TABLES

Prepared by:

ATLANTA TESTING & ENGINEERING
Tampa, Florida

March 6, 1998
AT&E Project No. 2440M

atlanta testing
& engineering
1211 tech blvd., suite 200 / tampa, florida 33619 / phone (813) 623-6646 / fax (813) 623-3795

Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

March 6, 1998
AT&E Project No. 2440M

Attention: Mr. Henry B. Dominick, P.E.

Re: **Proposed Discharge of Ash Pond Leachate**
Florida Power Corporation Anclote Power Plant
For Pasco County Utilities

Gentlemen:

On behalf of Pasco County (the County), Atlanta Testing & Engineering, Inc. (AT&E) is pleased to submit this proposal to discharge leachate from the County's Resource Recovery Facility's ash ponds at Florida Power Corporation's (FPC's) Anclote Power Plant near Tarpon Springs, Florida. This proposal includes the discharge of this leachate to existing percolation ponds at the plant and/or to the plant cooling water discharge. The information contained herein responds to comments contained in an internal Department of Environmental Protection (DEP) "e-mail" originated by Mr. Joe May which was provided to Mr. Douglas Bramlett of the County during a meeting at FPC's plant on Friday, February 13, 1998, and to requests/comments between AT&E and DEP personnel since the site meeting.

LEACHATE QUALITY

Analysis of samples of the County leachate have been performed on an approximately weekly basis since September 8, 1997. These samples have been collected from a sump which is connected to underdrains within the A-2 ash disposal cell. Samples collected from this sump have been identified as being from the "A-2 Sump".

The results of the analyses are summarized in Table 1. Copies of the laboratory reporting forms are presented in Appendix A. From this table, it can be seen that total dissolved solids (TDS) concentrations have ranged from 45,400 milligrams per liter (mg/l) to 156,200 mg/l, although the TDS concentration has typically been within the range of 50,000 to 100,000 mg/l. Chloride concentrations have typically fallen within a range of 20,000 to 40,000 mg/l.

Samples have also been collected from the surface of the water in the A-2 cell and analyzed, although not for the same range of parameters as the samples from the A-2 Sump. The results of the analyses on the surface water samples are summarized in Table 2. Copies of the laboratory reporting forms are contained in Appendix B.

For comparison, a typical chemical composition of seawater, as contained in Hem (1989), is as follows:

Total dissolved solids	35,000 mg/l
Chlorides	19,000 mg/l
Sodium	10,500 mg/l
Sulfate	2,700 mg/l
Magnesium	1,350 mg/l
Calcium	410 mg/l
Potassium	390 mg/l
Specific gravity	1.025 grams per cubic centimeter

In general, the chloride concentration in the leachate ranges from approximately that of seawater to approximately double that of seawater. Sulfate concentrations in the leachate are on the order of 1/5 of seawater and sodium concentrations in the leachate are approximately one-half that of seawater. Total dissolved solids concentrations of the leachate are on the order of 2 to 3 times that of seawater.

While some metals parameters have been reported in the leachate, total suspended solids concentrations indicate the presence of fine-grained materials. The presence of such materials is expected because most of the samples have been collected from a sump which is connected to underdrains in the ash cell. To evaluate the contribution of the ash particles on the metals concentrations, samples were collected from the A-2 Sump and from four surface water locations in the A-2 ash cell on February 17, 1998 and analyzed for both total and dissolved metals. (The analysis of dissolved metals was performed on samples that had been filtered through a 0.45 micron filter.) Prior to the analysis of the surface water samples, the four samples were composited volumetrically into one sample. Samples were also collected from the A-2 Sump and A-2 cell surface water on March 3, 1998 and analyzed for total and dissolved metals. The March 3, 1998 surface water sample was from a single location.

The results of these analyses are summarized in Table 3. The laboratory reporting sheets are included in Appendix C. A review of Table 3 indicates that most of the metals for which concentrations were reported are in a dissolved state, or are present in the sample in particles smaller than 0.45 microns. Filtering of the samples had the most effect on the concentrations of lead and zinc, and in the surface water sample, iron, and aluminum, possibly (but not the A-2 Sump sample), indicating that these metals are most likely in a particulate form in the leachate.

DISPOSAL VOLUMES

Pasco County would like to dispose approximately 200,000 gallons per day (gpd) of leachate at the FPC site. Disposal will occur seven days per week for approximately 4 months. It should be noted that the actual period of disposal will be dependent on rainfall and the continued successful restarting of the County leachate crystallizer constructed at the Resource Recovery Facility.

Information is presented herein for the disposal of the leachate either in the existing FPC percolation ponds or in the FPC cooling water discharge, or a combination of both. During disposal of the leachate in the percolation ponds, FPC will continue to utilize the percolation pond for disposal of their permitted fluids. A summary of FPC's discharge volumes to the percolation ponds for 1996, provided by FPC, is contained in Table 4. FPC's discharge to the pond is not continuous but will provide dilution of the leachate when the FPC discharge occurs.

LEACHATE MOVEMENT

Discharge to Percolation Ponds

The predominant driving force for the movement of the leachate after it has percolated from the pond is believed to be density. Density refers to the mass per unit volume of a substance and is often presented as specific gravity, which is the ratio of a substances density to that of a standard substance, usually water. Water density varies as a function of several parameters including temperature and total dissolved solids content. The density of water ranges from 1.0 grams per centimeter cubed (g/cc) for fresh water with little or no total dissolved solids to 1.07 g/cc for deep ocean water; however, sea water has a typical density of 1.025 g/cc. The Pasco County leachate will generally be more dense than the water present beneath FPC's percolation ponds due to the greater total dissolved solid content of the water proposed for discharge to the pond. According to Mackay et al. (1985), differences in density of approximately 1% influence fluid flow in the subsurface. Density differences as small as 0.1% have been shown to cause water to sink in physical model aquifers over several weeks (Schmelling, 1992). Studies of dense non aqueous phase liquids, which have densities ranging between 1.01 and 1.65 (1% to 65% greater than water) show that materials with densities much greater than water migrate vertically through the less dense material.

Gravity forces will promote the downward migration of the leachate due to its greater density. The fluid pressure exerted at the base of the discharged water body due to gravity, P_g, is proportional to the density difference between the discharged water and the ambient water ($\rho_n - \rho_w$) in the saturated zone (to account for the buoyancy effect of water), the discharged water absolute density in the vadose zone, and the discharged water body height, z_n. such that:

$$P_g = z_n g(\rho_n - \rho_w) \quad \text{(saturated zone)}$$

and

$$P_g = z_n g \rho_n \quad \text{(vadose zone)}$$

where g is the acceleration due to gravity (9.807 m/s^2). When using British units (e.g., lbs, ft), g must be dropped because weight equals mass multiplied by g.

This pressure (P_g) can be converted to an equivalent pressure head of water,

$$h_g = z_n g(\rho_n - \rho_w)/(g\rho_w)$$

Additionally, the hydraulic gradient due to gravity, i_g, can be calculated as

$$i_g = (\rho_n - \rho_w)/\rho_w$$

The gravity force that drives the discharged water flow is greater in the vadose zone where the density difference equals the discharged water density than in the saturated zone and increases with depth within the discharged water body (Cohen & Mercer, 1993).

As the leachate "sinks" through the aquifer, it will be diluted by the flow of water within the aquifer. Because of this dilution, some of the analytes contained in the leachate will flow with the surficial ground water flow zone and some will continue to sink vertically becoming more dilute with depth. Based on the physical nature of the flow system at the site, discharge of the shallow portion of the aquifer will be to the cooling water intake canal, located east of the percolation pond or to the Gulf, located west of the percolation ponds. Upon reaching the Gulf and/or cooling water intake canal, the large volume of flow (on the order of 30 million gallons per day in the cooling intake canal) and the tidal action of the Gulf will significantly dilute any analyte concentrations that have been elevated as a result of the percolation of the leachate.

Discharge to Plant Cooling Water

The second discharge alternative is the discharge of the leachate to FPC's cooling water system. FPC withdraws water at the mouth of the Anclote River for non-contact cooling water and discharges it to a canal that empties to the Gulf of Mexico. Cooling water flows vary in response to the power generating units in operation, but flows typically range from 900 million gallons per day (mgd) to over 2 *billion* gallons per day. Maximum average flows through the cooling system for the last five years were provided by FPC and are presented in Table 5.

Under this alternative, the leachate will be discharged directly to the cooling water either in the condenser flume or in the canal at the condenser discharge. In either location, turbulence will provide thorough mixing of the leachate with the high volume of cooling water.

LEACHATE IMPACTS

Discharge to Percolation Ponds

As can be seen from Table 4, FPC discharges approximately 104,000 gpd of fluid to the percolation ponds. At a disposal rate of 200,000 gpd of County leachate, the leachate will be diluted by approximately one-third. In discussions with DEP staff, concern has been expressed about "short-circuiting" of the leachate disposed in Percolation Pond No. 2 to the tidal surface water directly west of the pond via ground water discharge. Of particular concern are the effects of the concentrations of chlorides, metals and ammonia, in the form of un-ionized ammonia, on the biota in the tidal area west of Percolation Pond No. 2.

AT&E personnel were referred by DEP biologists to Dr. David Crewz, a DEP employee at the Florida Marine Research Institute, to assess the impacts of chlorides on the mangroves located west of the percolation pond. Dr. Crewz expressed the opinion that actively growing mangroves could tolerate chloride concentrations of 60,000 mg/l or higher, especially in areas where tidal flushing occurs. Mangroves are also very tolerant of heavy metals. Based on this discussion, Dr. Crewz did not believe that a ground water discharge of the leachate into the area west of Percolation Pond No. 2 would impact the mangroves.

FPC periodically analyzes samples of the discharges to the percolation ponds. A summary of this water quality data, as provided by FPC, is presented in Table 6. A comparison of this data to the leachate data contained in Table 1 indicates that the copper, iron, nickel and zinc concentrations in the leachate fall within the range of concentrations of the FPC discharge to Percolation Pond No. 2. The effects of these metals on the ground water most likely to discharge to the area tidal west of the pond can be illustrated through the ground water quality data collected by FPC on a quarterly basis from on-site monitoring wells.

Monitor well MW-2 is located on the western edge of Percolation Pond No. 2 at the point where the distance between the wetted area of the pond and the water in the tidal area is smallest. Monitor well MW-1 is located northwest of the northwest edge of the pond adjacent to the tidally-influenced area. Water quality data from these two wells, as provided by FPC, is summarized in Table 7. As can be seen, the metals concentrations have remained low in both of these wells. It is reasonable to expect that no appreciable change in the metals concentrations will occur in these wells from the disposal of ash pond leachate due to: the similarity of the leachate and the FPC pond discharges; the dilution of the leachate by FPC's discharges; the reduction in metals concentrations in the leachate due to filtering of the particles as percolation occurs (for those metals which were shown to be in a particulate state); and, the additional dilution which will occur as the denser leachate water commingles with the underlying ground water prior to discharge to the tidal area.

A review of the County leachate data indicates that ammonia concentrations generally have ranged from 13 to almost 29 mg/l. At the request of the DEP, a sample of the leachate was collected from the A-2 sump on February 25, 1998 to verify the concentration of ammonia. The results of this analysis indicated an ammonia concentration of 32 mg/l, similar to that recorded previously. A sample of the surface water in the A-2 ash cell was also collected and analyzed. This sample had an ammonia concentration of 10 mg/l. Based on these ammonia concentrations and the pH and temperature of the water at the time of sampling, the unionized ammonia concentrations were 1.3 mg/l for the A-2 sump sample and 0.036 mg/l for the surface water sample. The laboratory reports for these analyses are included in Appendix D.

As with all the parameters, however, the ammonia concentrations that could reach the tidal area will be diluted by the FPC discharges and the ground water under the percolation ponds. Additional reduction in the ammonia may occur through conversion and/or uptake by organics in the percolation ponds. To minimize any potential impacts, leachate discharged to Percolation Pond No. 2 could be drawn from the surface of the A-2 cell.

Discharge to the Plant Cooling Water

As shown on Table 5, the average cooling water discharge from the plant is 1,925 mgd (1.915 billion gallons per day). Anticipating that the discharge of the leachate to the cooling water would occur over the period April through July (4 months), the average cooling water discharge for April through July was calculated from the data presented in Table 5. The discharge for this time period averaged 1,986 mgd, slightly higher than the long-term average. Discharging 200,000 gpd of leachate into this flow represents a dilution factor of over 9,900 : 1 or almost three orders of magnitude. At that dilution ratio, virtually no change in receiving water quality could be detected after the addition of the leachate.

Based on the analyses of total and dissolved metals in the leachate (Table 3), lead and zinc may be, at least partially, in a particulate state that could conceivably be deposited in sediment around FPC's cooling canal discharge, albeit over a very large area. To evaluate the total mass loading contributed by the discharge of leachate, it was assumed that 200,000 gpd of leachate would be discharge for the four month period April through July (122 days). Over this time period, for every 0.1 mg/l of an analyte contained in the leachate, a total of approximately 20.36 pounds of that analyte will be added to the cooling discharge receiving waters. That is, if the average concentration of an analyte in the leachate over this time period is 0.15 mg/l, then the total mass loading will be 20.36 pounds X 0.15 mg/l/0.10 mg/l = 30.54 pounds.

Carrying this concept further, and assuming that ½ of the total mass is deposited into the top 6 inches of sediment, every 20.36 pounds of analyte would be equivalent to a sediment concentration of approximately 0.06 milligrams per kilogram (mg/kg) if spread out over 100 acres of area. (This calculation assumes the sediment to have a dry unit weight of 80 pounds per cubic foot.) Thus, if the average concentration of an analyte in the leachate during the 122 days of discharge is 0.15 mg/l, then the mass loading to sediment would represent a concentration of 0.09 mg/kg over a 100-acre area.

MISCELLANEOUS

In response to a request from the DEP, samples of the County leachate were collected and submitted for laboratory analysis of corrosivity by EPA Method 1110 (NACE Standard TM-01-69). A sample of leachate was collected from the A-2 sump on February 25, 1998. This location was selected to represent the "worst case" condition of the leachate, based on chloride and TDS concentrations. The corrosivity of this sample towards steel was 1.6 millimeters per year (mmpy), much less than the 6.35 mmpy used to designate a characteristic hazardous waste. The laboratory report for this analysis is included in Appendix D.

CONCLUSION

With the information submitted herein, we believe that the Department should have the data required to evaluate and approve the County's request to dispose, on a short-term basis, the excess leachate in the ash pond cells. We believe that the impacts of disposing the leachate in either the percolation ponds, the cooling water discharge, or a combination of the two, will have minimal impacts which are acceptable to correct the short-term leachate problem brought on by the recent abnormal rainfall. If you have any further questions pertaining to this matter, please do not hesitate to contact us. Because of the urgency to disposal of the leachate, we are ready to respond immediately.

Yours Very Truly,

ATLANTA TESTING & ENGINEERING

Lawrence J. Maron, P.E.
Principal

Robert E. Bretnall, Jr., P.G.
Senior Consultant

Attachments

cc: Robert J. Butera - DEP
Kim Ford - DEP
Douglas Bramlett - Pasco County
Randy Melton - FPC

REFERENCES

Cohen, R.M. and J.W. Mercer, 1993. *DNAPL Site Evaluation*, C.K. Smoley, Boca Raton, Florida.

Hem, John D., 1989. *Study and Interpretation of the Chemical Characteristics of Natural Water,* USGS Water Supply Paper 2254, Third Edition.

Mackay, D.M., P.V. Roberts & J.A. Cherry, 1985. Transport of Organic Contaminants in Ground Water, *Environment Science & Technology*, 19(5):384-392.

Schmelling, S.G., 1992. Personal Communication by Cohen and Mercer (1993), USEPA Robert S. Kerr Environmental Resource Laboratory, Ada, Oklahoma.

Date: 3/6/98 11:35:10 AM
From: Diana Booth TPA
Subject: Pasco County Land Fill Ash Leachate
To: See Below

Please find attached:

1. Memo to Bill Kutash concerning the Pasco County Land Fill Ash Leachate
   (hard copy on file)
2. Memo to Mimi Drew on the above
   (hard copy on file)
3. Memo on El Nino Wastewater Discharge Memo
   hard copy on file

Thank you.

Diana

Memorandum

Florida Department of
Environmental Protection

TO: Bill Kutash
Waste Management Administrator

FROM: Mike Hickey, P.E.
Water Facilities Administrator

DATE March 6, 1998

SUBJECT: PASCO COUNTY LAND FILL ASH LEACHATE

Rick asked us to draft the attached memo on the assistance that we are providing your staff. Specifically, we have considered the potential impacts of the subject disposal at Water Facilities' permitted sites.

This assignment came out of a Director of District Management/Mimi Drew/OGC/*et al* teleconference on Emergency Order (EO) use. Mimi needed the information for a briefing to Kirby Green. *El Nino* and an inquiry in the South District prompted the briefing. We remain available to assist you with evaluating the specific proposal from Pasco County when you receive it.

In general, an EO is solely to protect the public health, safety, and welfare. It is not forgiveness for violations and is usually followed by a Consent Order (CO) with corrective actions and penalties as appropriate.

If Waste Management and Pasco County decide to pursue the EO route, I suggest you discuss it with David Thulman.

The specifics needed for an EO include:

- A history of abnormal events leading to the emergency.
- The operation and design factors that limit the facility's ability to comply with its permit.
- Operational actions that limited the facility's ability to comply with its permit.
- The potential areas of permit non-compliance.
- The nature and magnitude of environmental resources at risk from a failure of their facility to comply with its permit.
- The specific actions needed to protect the public health, safety, and welfare.

- The specific conditions needed to minimize the adverse impacts of those actions.
- The specific monitoring plans to assess compliance with the EO

I am sending this to other staff for their information. Feel free to contact me for further clarification of the EO teleconference.

MSH/db
Attachments: Memo to Mimi Drew
El Nino Wastewater Discharge Memo

cc: Rick Garrity
Jim Bottone
Craig Diltz
David Thulman, OGC
Sam Zamani
Henry Dominick
Ed Snipes
Pedro Rivera
Judy Richtar
Charles Kovach
JoAnn Herron
Craig McArthur
Tom Gucciardo
Joe May
Kim Ford
file

Memorandum

Florida Department of
Environmental Protection

TO: Mimi Drew, Chief
Water Facilities

FROM: Michael Hickey, P.E.
Water Facilities Administrator/SWD

DATE: March 5, 1998

SUBJECT: PASCO COUNTY ASH LEACHATE DISPOSAL

We in Water Facilities are assisting Waste management in addressing the subject relative to disposal of landfill leachate to a Water Facilities permitted site.

There is the potential for mixing the leachate into the cooling water discharge stream from Florida Pow Corporation's Anclote Plant and thus meeting water quality standards. To fully assess such a plan, we need specifics. We understand that as soon as Waste Management gets the specifics from Pasco County they will seek out assistance in addressing them.

Also, the administrative procedures for authorizing this must be developed. Here are some points that include the input received from the teleconference on Emergency Orders concluded on March 4, 1998, A.M.

- Florida Power Corporation does not want to modify their permit and OGC fully understands this position.

- An Emergency Order may be used to direct an alternative that would protect the public health, safety and welfare.

- A consent Order would most likely follow to direct the "corrective actions" and "penalties" as appropriate.

In summary, one scenario could be an Emergency Order executed by the Secretary to dispose of the leachate to Florida Power Corporation's discharge stream. That would contain conditions, etc. that would be imposed upon Pasco County.

Florida Department of
Environmental Protection

Memorandum

TO: Rick Garrity
FROM: Tom Gucciardo
DATE: February 25, 1998
SUBJECT: "El Nino" Wastewater Discharges

The following have discharged **raw wastewater** from their collection systems most likely due to the seve chronic "El Nino" rain events of the past several months:

City of Tampa - estimated to be millions of gallons
City of St. Petersburg - estimated to be millions of gallons
City of Largo - estimated to be millions of gallons
City of Gulfport
City of Sarasota
City of Venice
City of Tarpon Springs
City of Clearwater
City of Pinellas Park
City of Dunedin
Town of Belleair
City of Crystal River
City of Bradenton
City of Palmetto
City of Wauchula
Pinellas County
Hillsborough County
Pasco County
Manatee County
Sarasota County - estimated to be millions of gallons

The following facilities have discharged treated **effluent** not in compliance with treatment and/or disposa of their DEP permits due to the severe and chronic "El Nino" rain events of the past several months:

City of St. Petersburg NW and Albert Whitted plants - millions of gallons
Dade City
City of Wauchula
Hillsborough County South County plant
City of Sarasota
City of Tarpon Springs
City of Bradenton
Sarasota County Central County and Venice Gardens Plants
Plant City
City of Auburndale

This does not include many **package plants** that have reported unpermitted effluent disposal discharges.

cc: Ed Snipes, Mike Hickey

To:	William Kutash TPA
CC:	Richard Garrity TPA
CC:	James Bottone TAL
CC:	Craig Diltz TAL
CC:	David Thulman TAL
CC:	Sam Zamani TPA
CC:	Henry Dominick TPA
CC:	Ed Snipes TPA
CC:	Pedro Rivera TPA
CC:	Judy Richtar TPA
CC:	Charles Kovach TPA
CC:	JoAnn Herron TPA
CC:	Craig McArthur TPA
CC:	Tom Gucciardo TPA
CC:	Joseph May TPA
CC:	Kim Ford TPA

Date: 3/4/98 06:24:36 PM
From: Robert Butera TPA
Subject: Pasco County Meeting
To: Kim Ford TPA
To: Steve Morgan TPA

Pasco County will be here to meet on March 12, 1998 @ 8:30 A.M. Please draft an agenda that it very specific to what has to be discussed. I plan on faxing it to Vince and Doug prior to week's end.

AVERAGE OF
AT LEAST 300,000 gpd
for next 100 days
OR
until compliance
achieved 62701.--.
1' depth
overlow

COVER 2 AC by May 1
2 AC May 15
2 AC May 30

(A-2)

BELOW EL 55

$330 \times 980 \times \left(\frac{2 \times 8}{2}\right) \times 7.5 \text{ g/cf} =$

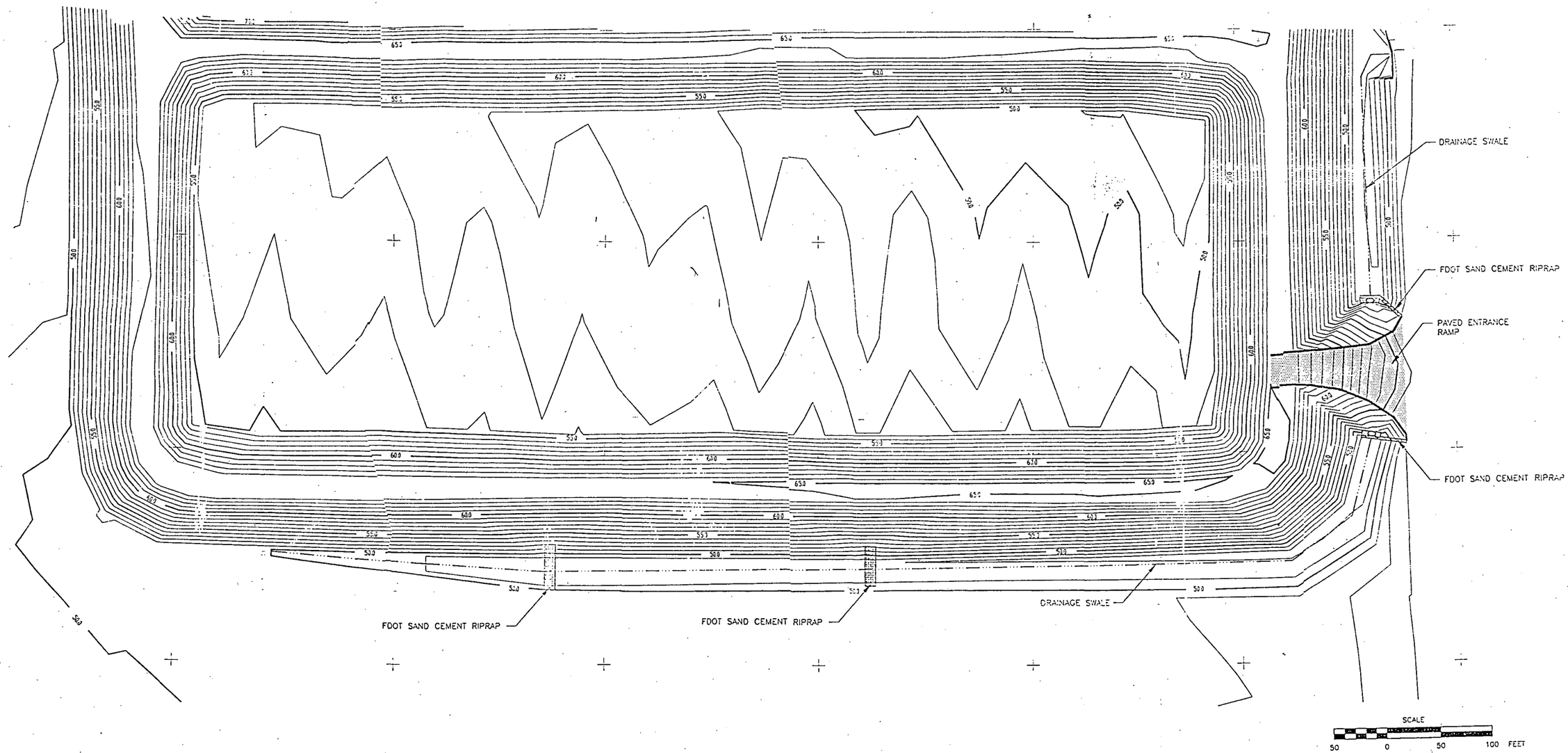
$= 12,127,500$ gallons

BETWEEN EL 64 to 55

$400 \times 1040 \times 9 \times 7.5 = 28,080,000$ gallons

50 Days

BEST AVAILABLE COPY



RECORD OF CONSTRUCTION
DRAINAGE LAYER
PASCO COUNTY ASH DISPOSAL UNIT A-2
PREPARED FOR
PASCO COUNTY FLORIDA

Date: 2/25/98 01:53:28 PM
From: Allison Amram TPA
Subject: W Pasco Leachate analyses
To: Charles Kovach TPA
To: William Kutash TPA
To: Robert Butera TPA
To: Kim Ford TPA
To: Joseph May TPA

Folks-

Pasco has AT&E sampling today for ammonia, unionized ammonia and corrosivity. They had filtered/unfiltered metals run last week (sampled from both the leachate sump and the top of the "pond"). We have a faxed copy of the metals results.

We should have the ammonia results by Monday; the corrosivity by Wednesday (next week).

Quick look at the metals analyses shows that the lead is particulate, as well as most of the copper.

I'll call AT&E on Monday to get the ammonia results faxed over.

Have a good week!

Allison

Date: 2/10/98 02:03:57 PM
From: Allison Amram TPA
Subject: Chem Lab Asst Request -w pasco leach solids
To: Jason Lancaster TPA
To: Kent Edwards TPA
CC: Kim Ford TPA
CC: Robert Butera TPA

Jason & Kent-

Here is the request for the leachate evaporator solids sampling tomorrow. I'd like to add some inorganics that may be a problem for disposal, but I don't know if we do these analyses on a solid waste:

total sulfur, sulfate, sulfide

Ammonia

If we do these, please let me know what kind of sample container/preservative to use for them.

Also, do I need a separate jar for mercury analysis?

Thanks, as always, for your help. You'll really be missed, Jason, but I'm happy that you've found your next challenge-- make them treat you well!!!!!!

Allison

CHEMISTRY LABORATORY ASSISTANCE REQUEST

REQUESTED BY / EXT.: Allison Amram / ext. 336
ALTERNATIVE CONTACT: Kim Ford / ext. 382
DATE OF REQUEST: 2/10/98 MODULE #: 4077

PRIORITY: EMERGENCY URGENT **ROUTINE**/ASAP

NAME OF FACILITY/PROJECT: West Pasco Leachate Treatment Facility
COUNTY: Pasco DATE OF ACTIVITY: 2/11/98

BACKGROUND INFORMATION (TO HELP EVALUATE THE REQUESTED WORK):

The West Pasco waste-to-energy plant generates a leachate that is high in chlorides, sulfur compounds and sometimes in metals. As treatment, the plant has evaporated the leachate and landfilled the solids. Analyses of the solids indicate that it is not a hazardous waste, but there are problems associated with it's disposal in the landfill (namely, that it makes the leachate to salty to treat easily). We have seen one set of analyses from the system, and would like to confirm it by sampling it and having FDEP's lab analyze the sample. Their sampling detected VOCs at low concentrations (acetone, 2-butanone, toluence and xylenes in low ug/kg range), but also did not detect many metals.

Previous inorganics detected (mg/kg): Chloride 480,000; Total sulfur 20,000; sulfate 60,000; sulfide <50; ammonia 90; sodium 99,000. pH was 9.2.

SPECIFIC WORK REQUESTED (INCLUDE PARAMETERS, NUMBER OF SAMPLES, MATRIX, SAMPLING KIT NEEDS,...):

Will collect one solid sample of the salt residue; I have prepared the sample kit:

1 8oz glass jar - metals (As, Ba, Be, Cd, Cr, Pb, Na, Ag, Cu, Ni, Zn, Se, Hg)

1 8oz glass jar - chlorides, ammonia, pH

1 8oz glass jar - total sulfur, sulfate, sulfide

1 6oz glass jar - VOCs

one stainless spoon for collection, gloves

(INSERT LINES WHERE NEEDED)
----------FOR CHEMIS

COMMENTS:

DATE COMPLETED:
EST. MAN HOURS:

FEBRUARY 1998 HOT ISSUES

AIR PROGRAM

- ORIMULSION is proposed to fuel the Florida Power & Light Corp. plant in Manatee Co A hearing is currently taking place in Manatee Co. and is projected to continue to the end of January. The hearing officer will make recommendations to the governor and cabinet for a final decision.
- PINEY POINT plans to rebuild and restart the existing sulfuric acid plant in Manatee Co. been opposed by the County Commission. Piney Point and the Commission have now reached agreement. Piney Point has agreed to a lower SO2 emission standard. The Commission will not oppose the permit public notice. The draft permit was sent to Piney Point for public notic in January 1998.
- CITRUS PEEL DRYERS have not been regulated to date for emission of VOC's and CO which are significant enough to place most of the processing plants in major air regulatory categories (Title V and PSD]. A testing program was conducted by the industry in Florida in 1997, which verified high levels of emissions. DEP is developing a statewide policy for addressing these issues which will probably involve an industry wide consent order. Approximately half of the citrus facilities are located in the SWD.

ECOSYSTEM MANAGEMENT

- Hernando' refusal to agenda the Department for Wysong discussion and removal of staff fr the TAC. 2 scheduled presentations to Citrus and Sumter on track for now.
- IMC's public work groups have started. TACs will start within the month.
- WCIND remains on hold.
- NEP Action Plan - meetings scheduled with EPC and PA's on Wed. to begin joint preparat of 5 year plan
- Beginning preparation of a work plan with the City of Tampa for Sustainable Communities designation.
- Appointment of Ag Task Force by County Commission which will launch the Whole Farm project.

TEAM PERMITTING

- TWRRP

WASTE MANAGEMENT

SOLID WASTE

- Pasco County Landfill - Substantial lack of compliance at the West Pasco Class I Landfill (A-1, A-2, and SW-1.

Pasco County opened 10 acres of landfill area (an area that was segmented in thirds) such that rainfall accumulating on segments, not disposed in, should have been treated as stormwater. The County disposed in all zones thereby subjecting the whole area to leachate prior to requesting approval from the Department. This process was implemented and not approved by the Department. The Department strongly advised against such action, however the county insisted that the new Leachate Treatment Plant could handle all leachate generated. The new Leachate Treatment Plant permit issued in 1996 required construction completion by March 1, 1997. The Leachate Treatment Plant was shut down in June of 1997 due to significant operational problems and has not been used since then. Due to the ongoing rainfall and significant noncompliance issue the ash disposal cell (A-2) has over 20,000,000 gallons of leachate. The leachate head on the liner

exceeds the maximum one foot depth as required by the Department's Solid Waste Rule (F.S. 62-701). Leakage rates increase exponentially with head over the liner. The current head appears to be 13 feet. Pasco County is currently hauling 50,000 gallons of leachate per day to two WWTP's. At this rate of hauling the landfill could be out of compliance for years due to additiona rainfall and inadequate quantities of leachate being hauled. Pasco County has refused to haul leachate long distances which is routinely practiced at other solid waste facilities in their efforts to be in compliance. This only addresses the most significant violation at the site. There are others including impounded leachate in Cell SW-1. I can provide for Rick supporting documentation such as an inspection report, Rick's letter to John Gallagher, etc.

HAZARDOUS WASTE

- The Enhanced Contingency Plan draft rule

  This draft rule proposes to impose additional location and design standards on new and existing operational hazardous waste treatment, storage, and disposal facilities (TSDFs) and hazardous waste transfer facilities. All new facilities must meet certain location standar (e.g., active area must be more than 1000 yards away from a residence). All new facilities and existing facilities that do not meet the location standards must meet additional design standards (e.g., improved fire suppression system).

  This draft rule came about due to concerns about the consequences of a catastrophic aerial release from a TSDF or transfer facility. A final draft of the rule is currently being prepare and PCC review is anticipated sometime in February.

WATER FACILITIES

DOMESTIC WASTEWATER

- Lindrick Service Corp./Senator Latvalla

NOV issued 1/13/98; must respond within 20 days of receipt.

POTABLE WATER

- Black Water/Aloha/Representative Fasano

SLERP

- "Cruise to nowhere" Boats - Tarpon Springs, Cootie River, Crystal R., VeniceVegas
- Wysong Dam and related Withlacoochee Issues
- Shoemaker

SWD agrees project is permittable with a lease. Shoemaker representatives are not in favor of a lease and their attorney has not responded yet.

- HyPower

Permit denied. They requested a time extension of 180 days to submit additional information. SWD gave them 90 days based on previous bad faith effort. We are just at the start of the 90 days.

- Shackett Creek

WCIND involved, dredging of area with approx. 40 homes, Sarasota Co. staff did not approve, County Commissioner was upset, Rose Poyner working on permit, PEL sent advising them project is deniable. Dr. Garrity will meet them on site to see the project.

- Mr. Meager (Bill Vorstadt showed photos to Kirby)/Representative Argenziano

Mr. Meager met with district staff, they told him a GP was not applicable and he must remove the berm and restore the area. He was irate and left. Called staff and told them they needed a warrant to make a site visit. He called staff a few days later and said he removed the berm. A staff from our Aquatic Weed control was in area and said it looked as if berm was still there. District staff have not been out to confirm. Mr. Meager invoked House Bill 57 which was written with the Lake Rousseau project in mind (removal of muck).

Date: 2/19/98 06:37:39 PM
From: Robert Butera TPA
Subject: Pasco County
To: Steve Morgan TPA
CC: Kim Ford TPA

Rick was not available yesterday afternoon so I couldn't get his signature on a letter I feel should be coming from me. Could you or Kim try in the AM? Having just received a memo from Doug which Kim has a copy of, I strongly suggest we issue an NOV. Do note that Rick was not on distribution.

Please take a better look at A&D Recycling T.S. general permit. I have some questions and would appreciate you reviewing at least the operational plan. I want to make sure he clearly states he will not accept any waste at the site till the building is constructed and certification is approved.

Kim, please make a copy of the permit cover memo and place in my basket.

Bob Ld 8

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 2/6/98 Subject W PASCO LEACHATE

Time 4:20 Permit No.

County

M LARRY MARON Telephone No.

Representing Alley, Bay.

[✓] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

LARRY M SAID HE WILL DISCUSS USE OF KAISER DEEP WELL ON MONDAY AND SAID HE IS FAMILIAR WITH PASCO COUNTY LEACHATE PROBLEM AND KNOW BOB BRANCH

LARRY ASKED COST TO DISPOSE AT NORTH PORT. I SAID IS NOW $4/1000 FOR SARASOTA.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/96
pap

Barbara

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 2/6/98

Time 1:25

Subject CW PASCO LEACHATE

Permit No.

County

M Bill McFaren

Telephone No.

Representing

[✓] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

Bill McFaren said Cost to transport leachate to North Port WWTP is $325/tanker (6000 gallons) Roundtrip 120 mile each way

Bill said he would call Vince Mannella to discuss.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/96
pap

Bob RB

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 2/6/98

Time 9:40

Subject W PASCO LEACHATE

Permit No.

County PASCO

M Dick Mayer

Telephone No. 2890750

Representing LAW ENG

[ ] Phoned Me [✓] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

I SUGGESTED 2 POSSIBLE OPTIONS FOR REMOVAL/DISPOSAL OF LEACHATE:
1. FLORIDA POWER - ANCLOTE POND & OUTFALL
2 KAISER ALUMINUM POLK COUNTY DEEP WELL INJECTION
I EXPLAINED HE SHOULD CALL HENRY D. OF FL POWER & JOHN R. OF KAISER TO DISCUSS FURTHER
I GAVE DICK THE NAME & # OF KAISER CONSULTANT
DICK APPRECIATED THIS INFORMATION AND EXPRESSED INTEREST IN BOTH

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/93
hjs

KFN
AA AA2/6

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 2-5-98

Time 9:00 A.M.

Subject PASCO LEACHATE

Permit No. —

County NORTHPORT / SARASOTA

M S. CINDY MICK

Telephone No. 941-426-9500
FAX - 941-426-5469

Representing CITY of NORTHPORT UTILITIES

[ ] Phoned Me [ ] Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

CONTACTED CINDY TO INQUIRE ABOUT POTENTIAL CAPACITY AND RECEPTIVENESS OF CITY TO ACCEPT LEACHATE FROM PASCO COUNTY. CINDY SAID THEIR WWTP WAS AT CAPACITY (1,500,000 GPD) BUT SAID HER PLANT CAN TREAT ADDITIONAL CAPACITY PRIOR TO DEEP WELL INJECTION. @ INJECTION WELL PERMITTED FOR 4,700,000 GALS/DAY. SHE SAID SHE WOULD CONTACT BILL WASHBURN (DW) AND REVIEW LEACHATE SAMPLING DATA FAXED TO HER. SHE WAS VERY RECEPTIVE AND APPEARED TO BE CAPABLE OF ACQUIRING AUTHORIZATION TO INCREASE HER CAPACITY @ THE PLANT TEMPORARILY.

I REQUESTED TREATMENT COSTS — SHE SAID IT WOULD HAVE TO BE APPROVED BY CITY COMMISSIONERS BUT BEE RIDGE LF WAS BILLED @ 4.10/1000 GALS. BUT THOUGHT OUTSIDE COUNTY WOULD BE ASSESSED 6.00/1000 GALS.

(continue on another sheet, if necessary)

Signature

Title

PA-01
1/93
hjs

Bob RB
Allison AA

S. E. E. R.

6902 7th AVENUE EAST * TAMPA, FL. 33619

FACSIMILE TRANSMITTAL SHEET

TO: Kim Ford

FROM: Mike Flynn

COMPANY: DEP

DATE: 2/5/98

FAX NUMBER: 744-6125

TOTAL PAGES INCLUDING COVER: 2

PHONE NUMBER:

SENDER'S REFERENCE NUMBER:

RE: Electronic Recycling

YOUR REFERENCE NUMBER:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☑ Please Recycle

NOTES/COMMENTS:

FYI

Secure Environmental Electronic Recycling (S.E.E.R.)

PHONE (813) 621-8870 • 888-600-SEER • FAX (813) 621-5457

8503 Sunstate Street
Tampa, FL 33634
Permit # HO29-274025
Phone: (813)249-0608
Fax: (813)249-1233

Quicksilver Environmental, Inc.

February 3, 1998

Mr. Vincent Manuella, P.E.
Solid Waste Facility Manager
7536 State Street
New Port Richey, FL 34654

REF: 10 million gallons of Leachate

Dear Vincent:

Quicksilver Environmental, Inc. (Q.E.) is pleased to make the following proposal to transport and treat not less than 10 million gallons of leachate from the West Pasco Class III Landfill.

The leachate is to be loaded on our tank trucks, approximately 5,500 gallons per truck, by the county unless other arrangements are made (2) hours free loading time, $75.00 per hour thereafter. The leachate will be transported to International Processing Specialists, Inc. in Jacksonville, FL for proper treatment according to the rules and regulations of the Department of Environmental Protection (DEP) and discharged.

The cost for the county is $ 0.19 per gallon. This cost is inclusive of labor, materials, transportation, insurance's, and treatment. Time to completion is 100 days per 10 million gallons.

Quicksilver Environmental Inc. will take title to the leachate and all risks of loss at the time the tanker leaves the loading area at the landfill.

This proposal is contingent upon completion of necessary paperwork and successful treatment of a representative sample of the leachate.

Sincerely,

William M. Flynn
President

cc: Doug Bramlett
Farouk El Shamy

When the Environment Really Matters

W PASCO LANDFILL
100 DAY PLAN

60,000 TO TAMPA WWTP

100,000 TO ODEM PORT

20,000 ON-SITE GTP

180,000 X 100 DAYS

= 18,000,000 GALLONS REMOVED in 100 DAYS

ALSO REGRADE AND COVER
A-1 AND 1/2 OF A-2 in 100 DAYS
WITH GEOMEMBRANE
(TO COVER MORE OF A-2 MAY
RELOCATE A-1 ASH INTO A-2
AND REGRADE AS LEACHATE
IN A-2 IS REMOVED)

Jm 2/5/98

TOTAL COST ~~2,000,000~~
≈ $1,000,000

JJ BAKER - $23/1000 @ 45 miles = .51/mile
(Bill McFarren, #1800 5629599, #941 5750606)

COASTAL ENVIRONMENTAL SERVICES $19/1000 @ 45 miles
(CHRIS MENKEMEYER, #813 7973224)

TAMPA WWTP $5/1000
NORTH PORT $6/1000

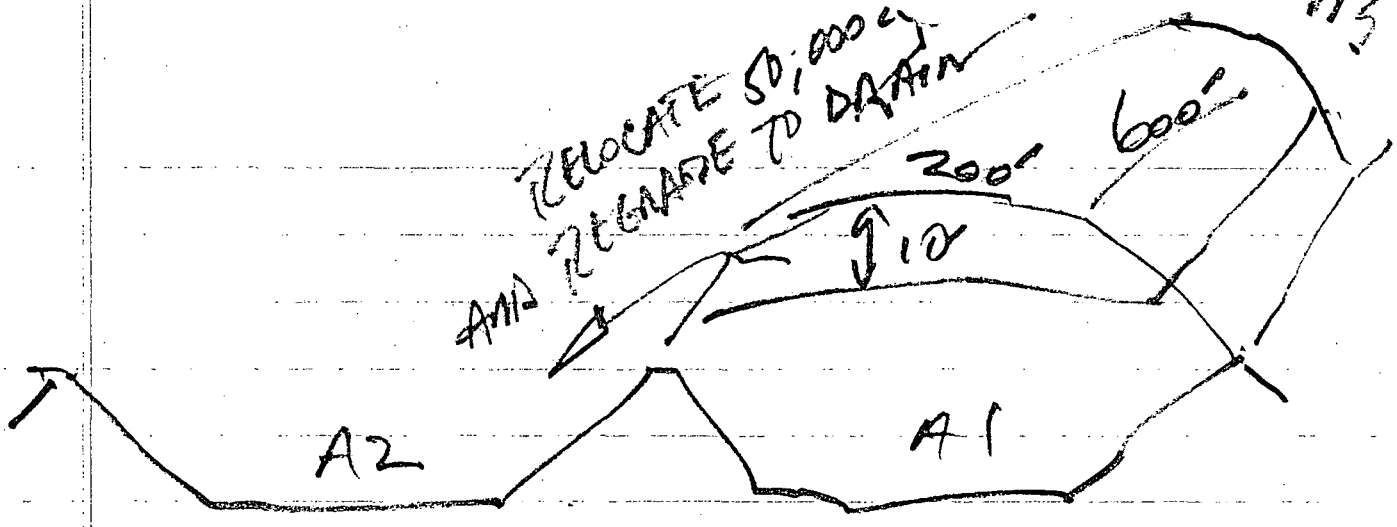
WORST CASE:
HAUL 15,000,000 GALLONS TO NORTH PORT @ 100 miles
USE
TRANSPORT: $.51/MILE × 100 = $51/1000 GALLONS
+
DISPOSAL: = $6/1000 GALLONS

$51/1000 GALLONS

15,000,000 ÷ 1000 × $51 = $765,000

TOTAL COST = $855,000.

@ 100,000 GPD
15,000,000 ÷ 100,000 = 150 DAYS
TO DISPOSE OF
15,000,000 GALLONS



$10' \times 200' \times 600' \div 27 = 44{,}444$ cy

USE 50,000 cy
@ \$1.50/cy
to RELOCATE
AND REGRADE
= \$75,000

$24/1000 @ 24 miles = 1 roundtrip
12 miles
8

$16/1000 @ 8 miles roundtrip

$2/1000/mile

.50/1000/mile

6,000,000

$23/1000 / 45 miles round

180 miles roundtrip

Date: 2/4/98 05:07:20 PM
From: Allison Amram TPA
Subject: W. Pasco leachate evaporator solids
To: Robert Butera TPA
To: Kim Ford TPA
CC: Richard Tedder TAL
CC: Richard Garrity TPA
CC: William Kutash TPA

Bob & Kim-

Vince faxed me legible solids results from the leachate evaporator system. There are some solvents in the solids (acetone, 2-Butanone, toluene and xylenes), but nothing else was detected except these inorganics (in mg/kg):

pH	9.2	
Sodium	99,000	
Chloride		480,000
Total Sulfur	20,000	
Sulfate	60,000	
Sulfide	<50	
Ammonia	90	

Calcium, magnesium and potassium are also high.

We have seen acetone in the leachate, but not the other solvents. Also, we have seen some of the heavy metals in the leachate, but none were detected in this analysis (lower detection levels were in the low mg/kg range). (Richard-- I'll fax the solids results to you!)

My concerns with an MSW landfill taking this waste is... big surprise... the problem with treating the leachate. NW Hernando has asked about this, but their leachate is treated by WWTPs in Hernando County that do not have R/O systems, so the chlorides, sodium and other salts would not be treated, and would pose problems for the WWTP effluent disposal. Also, the high sulfur content when mixed with the MSW may produce more hydrogen sulfide which could just be an odor problem, or it could become a gas/toxicity problem.

In response to the January 23, 1998 letter to Virginia Wetherall by the Solid Waste Management Citizens Advisory Committee, I don't see how we can allow disposal of a solid in the Gulf of Mexico (they requested our evaluation of disposing the leachate evaporator solids in the Gulf). F.A.C. 62-701.300(1)(a) prohibits disposal of a solid waste anywhere but a solid waste management/disposal facility.

When I looked at the results they had attached to their letter, they are leachate results, not solids testing results. This confused me... maybe they want to discharge the leachate in the Gulf? Just in case, I asked around to see how this would work. It would require an IW permit (with public comment!), and the leachate would have to have a mixing zone to meet the surface water criteria of F.A.C. 62-302. Possible water quality problems would be chlorides (can't exceed >10% chloride content above background, and have to continue seasonal trends in the receiving water body) or possibly the toxicity testing. They also would need to find a good spot to discharge (I think they'd have to truck it somewhere); maybe a river mouth would offer the best area for a mixing zone.

I know that this is just saying what I believe they can't do; not

offering better alternatives. Long term (and probably not a quick option) may be to buy UIC capacity from Sarasota County on their WWTP effluent injection wells. They would have to prove that the leachate is non-hazardous (which I believe they can easily do with their history of sampling), and then work out some kind of agreement with the County. It's also a long way to truck 30 million gallons! To make it easier to get an agreement with the County, they could process the leachate through the WWTP.

The idea of renting a large AST at the Port of Tampa (or Port Manatee) just to get it out of the landfill may be the best coping strategy to postpone a breach over the landfill berm. Then they could treat the leachate at different locations with added luxury of time.

Date: 2/4/98 04:58:27 PM
From: Chris McGuire TAL
Subject: Re: URGENT! Pasco County
To: Richard Tedder TAL
To: Robert Butera TPA
CC: Mary Jean Yon TAL
CC: Allison Amram TPA
CC: Kim Ford TPA

I did confirm that we have authority to regulate discharges to marine waters within our territorial boundaries (about 9 miles in the Gulf). Any discharge would have to get an NPDES permit, and EPA (which oversees our program) is currently frowning on ocean outfalls. So, I presume, are we.

Date: 2/4/98 04:51:31 PM
From: Richard Tedder TAL
Subject: Re: URGENT! Pasco County
To: Robert Butera TPA
CC: Mary Jean Yon TAL
CC: Allison Amram TPA
CC: Kim Ford TPA
CC: Chris McGuire TAL

Bob, Chris and I discussed this briefly. We think it is not a good idea to dump the leachate treatment residues in the Gulf and that probably our Class III Marine surface water standards apply. Chris is going to check with some other attorneys on the authority issue and will no doubt be sending an email. Since we require ash to be disposed of in lined landfills, and this leachate treatment residue would no doubt concentrate trace metals that could leach from the ash, then this material should probably also be disposed of in a lined landfill.

If the Class III marine surface water standards apply, then based on the data they submitted it is hard for me to see how they can state the material is "non-toxic." The data submitted is for leachate from the ash monofills. (No justification is given for how well this applies to the treatment residues. I will ignore that issue for now.) It seems to me the reported cadmium, copper, nickel, silver and zinc levels are all well above the allowed levels for Class III marine waters. Chlorides are not to be increased more than 10 percent above normal background. Some references I have suggest that a typical value for chloride in seawater is 18,900 mg/L. One of their leachate test results showed chlorides at 45,733 mg/L which is well above the 10 percent limit. Since the surface water standards are designed to help propagate fish, etc. I would think that when you exceed the standards you run the risk of being toxic to aquatic life.

Date: 2/4/98 10:58:34 AM
From: Robert Butera TPA
Subject: URGENT! Pasco County
To: Richard Tedder TAL
CC: Mary Jean Yon TAL
CC: Allison Amram TPA
CC: Kim Ford TPA
CC: Chris McGuire TAL

Please check your fax ASAP. Kim, Allison and I would appreciate your thoughts and input so that I can draft a letter from Virginia to the Pasco County Solid Waste Citizen's Advisory Council. They have requested to dispose of the solids (high chlorides) evaporated off the leachate into the Gulf. In addition there are numerous violations at the facility including the impounding of 30,000,000 gallons of leachate that they are hauling at a rate of less than 60,000 gallons per day. Hillsborough and Sarasota Counties in the past, to rectify a similar a problem, hauled 100,000 to 200,000 gals. per day for up to a year. We may be close to issuing a NOV? We are taking this matter very seriously as there is reported to be less than 3 feet of freeboard in A-2 (leachate) impounded cell) not to mention the a significant head over the liner. Any assistance in the review of the data, and suggested disposition on the request for disposal of salt bags will be sincerely appreciated .

I suggest you contact Kim or I and we will inform you as to the county's inability to properly manage their site to attain compliance. We have attached a letter to the facility from the Department and their response received today for some background.

You may be hearing from us and others on this matter in the future.

Date: 1/22/98 11:25:35 AM
From: Robert Butera TPA
Subject: Topic for Rick's Meeting for the Secretary - Solid Waste
To: Norton Mac Craig TPA
CC: William Kutash TPA
CC: Kim Ford TPA
CC: Steve Morgan TPA

Pasco County Landfill - Substantial lack of compliance at the West Pasco Class I Landfill (Cells A-1, A-2, and SW-1.

Pasco County opened 10 acres of landfill area (an area that was segmented in thirds) such that rainfall accumulating on segments, not disposed in, should have been treated as stormwater. The County disposed in all zones thereby subjecting the whole area to leachate prior to requesting approval from the Department. This process was implemented and not approved by the Department. The Department strongly advised against such action, however the county insisted that the new Leachate Treatment Plant could handle all leachate generated.

The new Leachate Treatment Plant permit issued in 1996 required construction completion by
March 1, 1997. The Leachate Treatment Plant was shut down in June of 1997 due to significant operational problems and has not been used since then.

Due to the ongoing rainfall and significant noncompliance issues the ash disposal cell (A-2) has over 20,000,000 gallons of leachate. The leachate head on the liner exceeds the maximum one foot depth as required by the Department's Solid Waste Rule (F.S. 62-701). Leakage rates increase exponentially with head over the liner. The current head appears to be 13 feet.

Pasco County is currently hauling 50,000 gallons of leachate per day to two WWTP's. At this rate of hauling the landfill could be out of compliance for years due to additional rainfall and inadequate quantities of leachate being hauled. Pasco County has refused to haul leachate long distances which is routinely practiced at other solid waste facilities in their efforts to be in compliance.

This only addresses the most significant violation at the site. There are others including impounded leachate in Cell SW-1.

I can provide for Rick supporting documentation such as an inspection report, Rick's letter to John Gallagher, etc.

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 20, 1998

Mr. Doug Bramlett
Pasco County Utilities
7530 Little Road
New Port Richey, FL 34654

Re: West Pasco Landfill

Dear Doug;

On January 8, 1998, Bob Butera and Kim Ford visited the West Pasco Landfill site and observed a number of new problems as well as old issues which have worsened since our last meeting. Please review the attached site inspection for January 8, 1998 and explanations listed on the third page of the inspection form. You are requested to respond with a schedule for corrective actions of non-compliance items noted during the inspection not specifically addressed below within 10 days.

In addition to the site operation problems noted on the January 8, 1998 inspection report, there are several other related activities and items which are of concern to the Department which require your attention:

1. Attached are the spreadsheets for recording leachate quantities discussed at our December 11, 1997 meeting. The Department requested that this information as indicated on the sheets be updated and provided by FAX to the Department each week on Friday for all days through the previous Wednesday. Hard copies of the completed form were to follow by mail at the end of each month. This submittal has not taken place and should be initiated.

2. During the December 11, 1997 meeting, the issue of changes to the manholes and valves for disposal unit A-1 were discussed and the Department requested record drawings for the changes to the manholes and valves for disposal unit A-1, and the estimated quantity of leachate in disposal unit A-2 updated daily based on staff gauge readings. The December 19, 1997 letter from Law Engineering officially notifies the Department of the changes, but failed to include the requested record drawing. The Department has also not received the requested staff gauge readings. These submittals should be provided to the Department. As a result of the recent inspection, an estimate of the volume of leachate impounded in SW-1 should also be included.

3. Pasco County's Task Order 1-98 dated November 1997 instructed Law Engineering to prepare an operations plan to include filling procedures and possibly the use of a rain tarp to limit rainfall infiltration in inactive areas of Cell A-2 within 30 days. The descriptive plan for the use of a rain tarp from Law Engineering dated January 5, 1998 lacks sufficient design detail and supporting documentation to provide reasonable assurance that future rain events in 1998 can be properly controlled and leachate minimized. Immediate and detailed filling and grading plans for corrective actions and revised operations plan for compliance to prevent reoccurrence is required for Department review. Department staff believes that unless most of the entire disposal unit A-2 is covered with a rain tarp by June 1, 1998 (the beginning of the rainy season) there is a serious threat of overtopping the liner which would cause a discharge of ash leachate. The Department's Warning Notice dated November 18, 1997 and letter dated November 21, 1997 requested specific plans for corrective action. To date the County has not included methods that would reasonably assure the Department of corrective actions to prevent further violations. In addition to the design plans, supporting documents shall include future rain and leachate projections and calculations for leachate generation rates in response to anticipated rainfall. All the aforementioned submittals are required for Department review and disposition and should be provided within the next 10 days.

4. Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months. This permit condition in the current Class III landfill permit has not been complied with. The Department has no objection to the December 18, 1997 Yard Trash Management Plan and anticipates compliance within the next few months.

5. At our meeting on December 11, 1997, I believe the County committed to transporting 12,000 gpd immediately increasing to 60,000 gpd of ash leachate to the Tampa WWTP and 12,000 gpd to the New Port Richey WWTP by mid-January. To date, records indicate a maximum of only 24,000 gpd to Tampa on two days only in December since the meeting and 18,000 gpd on one day only to New Port Richey, and on most days much less or none at all. The Department requests an explanation of this shortfall in corrective action which the County committed to initiate and an indication of your ability to meet your commitments to remove and transport the ash leachate in the future.

Administrative procedures such as permit modifications have not been followed for ongoing site changes. Understandably, some issues have a greater need for a quick response and Department staff have proven their ability to meet and resolve these urgent issues in a cooperative and timely manner. It is the duty of Department staff to provide technical assistance as is consistently provided for all permittees, on all issues that may impact ongoing regulated activities.

I bring these matters to your direct attention because I believe you and Mr. Gallagher's intentions are to come into full compliance as quickly as possible. However, the Department is very concerned that conditions at this site appear to be going in the opposite direction and the County's progress does not appear to be as aggressive as the situation warrants. As a result, the County may soon be faced with conditions which may take years to correct. I request that you contact Bob Butera immediately to resolve these issues and provide a specific schedule to implement all corrective actions required to bring site into compliance.

Yours very truly,

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

RDG/kbfb
Attachments

cc: John Gallagher, Pasco County
Vince Mannella, Pasco County
Robert Butera, P.E., FDEP Tampa
Hamilton Oven, P.E., FDEP Tallahassee

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

NOV 1 8 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John Gallagher
County Administrator, Pasco County
7530 Little Road
New Port Richey, FL 34654

WARNING LETTER #WL97-0008SW51SWD

RE: West Pasco Class I Landfill, Disposal Units A-1 and A-2
PA87-23, Pasco County

Dear Mr. Gallagher:

The purpose of this letter is to advise you of possible violations of law for which you may be responsible, and to seek your cooperation in resolving the matter. Written and verbal notifications and reports by Pasco County, as well as field inspections conducted on October 6 and October 28, 1997 of the West Pasco Class I Landfill indicate that violations of Florida Statutes and Rules may exist at the above-referenced facility. Department of Environmental Protection personnel observed the following at the facility:

1) A significant quantity (what has been determined to be millions of gallons) of leachate, at one time observed to be three to five feet deep, is impounded in portions of Disposal Unit A-2.

2) In addition Pasco County has failed to remove leachate from the collection system of Disposal Unit A-1.

Florida Administrative Code Rule 62-701.400(3) provides minimum design standards for the construction of landfills. According to this rule double lined landfills shall have a primary leachate collection and removal system designed to limit the leachate head to one foot above the liner during routine landfill operations. This rule further requires a leak detection and secondary leachate collection system designed to limit the maximum hydraulic head on the lower liner to one inch. It is a violation of **F.A.C. Rule 62-701.500(8)(b)** to fail to maintain the leachate collection and removal system as designed. Failure to comply with Department rules or a permit issued by the Department pursuant to its lawful authority is a violation of **Section 403.161(1)(b), F.S.**

You are advised that any activity at your facility that may be contributing to violations of the above described statutes and rules should cease immediately. The operation of a facility in violation of state statutes or rules may result in liability for damages and restoration, and the judicial imposition of civil penalties up to $10,000 per violation per day pursuant to Sections

403.141 and 403.161, Florida Statutes. You should note, according to Department guidelines for calculation of civil penalties, the violations described above typically warrant penalties in the range of *$4,600 - $6,000 per day.*

PLEASE BE ADVISED that this Warning Letter is part of an agency investigation, preliminary to agency action in accordance with Section 120.57(4), Florida Statutes.

You are requested to contact the Department within 5 days of receipt of this letter to arrange a meeting with the Department to discuss resolution of these issues. At this meeting, you should be prepared to provide to the Department for discussion the **specific** plans for corrective actions to be implemented by Pasco County to rectify the situation, including a time table for completion of the activities.

Sincerely,

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

cc: Douglas Bramlett, Pasco County
Vincent Mannella, P.E., Pasco County
Robert J. Butera, P.E., FDEP

Date: 1/20/98 05:52:59 PM
From: Robert Butera TPA
Subject: West Pasco Landfill
To: Steve Morgan TPA
To: Kim Ford TPA
CC: Danielle Nichols TPA

Danielle's visit yesterday revealed the following:

(1) All ponding in SW-1 appears to have been handled by the Shady Hills Facility. When they submit their leachate balance data I suggest we review the quantities that were sent to the facility and the quantity of leachate that may have been impounded January 8, 1998. It appears a significant quantity of leachate was sent to the WWTP in a short time considering the additional rainfall since that date.

(2) The level of leachate in the pump station measures 13 feet. Al Ford mentioned that it appears to be significantly over the 12" authorized by rule.

(3) Salt Bags in Roll-Off Containers within the landfill (A-2) outside the ponded area.

Just thought you may want to discuss these issues with Danielle before I come in, as well as resolve the Waste Tire issue.

Date: 1/8/98 06:30:32 PM
From: Robert Butera TPA
Subject: Pasco County - Leachate
To: Richard Garrity TPA
CC: Kim Ford TPA
CC: Steve Morgan TPA

Tuesday I contacted Doug as you requested. He expressed concern that Kim could not give Vince or he a verbal approval for a proposal for berming the salt bags in the cell. I explained that all staff requests either sketches or drawings from permittees to propose what they construct. Please be aware that this was a "no brainer" requiring them to pick up the salt bags and store them in a roll-off container within the cell long ago. Doug requested to build a berm around the bags to allow them to pump the leachate from around the bags to the rest of the impounded leachate. Kim authorized their request with conditions (your on distribution) and I suggest you review Kim's conversation report with Vince which I have in my office. I will be copying you on all future correspondence. We have a serious problem at the facility and intend to immediately draft an NOV as a result of Kim and my findings today at the site.

As of today the pond covers 70% of Cell A-1 to a depth that covers all salt bags. They have already started to construct the berm without receipt of the authorization. Kim and I were shocked to see they had a berm on the east side of the intermediately closed cell A-2 cell which had impounded stormwater and evidently had overflowed the berms to cause serious erosion exposing the landfill liner at the anchor trench. These berms were constructed last June or July only to temporarily prevent erosion while they reseeded the side slopes. They were never removed. This caused the berm to contain the stormwater the last six months that fell on the closed area allowing it to percolate through the waste to the leachate collection system of Cell A-1 which they were pumping to A-2. If you recall at the meeting December 11th Kim suggested pumping it to A-2 but he did not realize they were impounding stormwater on the top of A-1. They could have at least pumped the stormwater to their stormwater system rather than allow it to percolate to the leachate collection system.

The Solid Waste (not ash) cell is also a lake of leachate. It appears they have plugged this cell as well or have not run the pumps to carry this leachate to the WWTP. This leachate is authorized to be pumped to the WWTP.

The portable hose (about 6") used for pumping leachate from the pump station to A-2 is leaking thereby discharging leachate to the stormwater retention area. Within 40 feet of this leak there appears to be a sinkhole (5 ft. dia. x 3 ft. deep). TO SAY THE LEAST WE ARE VERY CONCERNED!

Hopefully we will have the photographs developed by Monday and I will go over them with you when you have time.

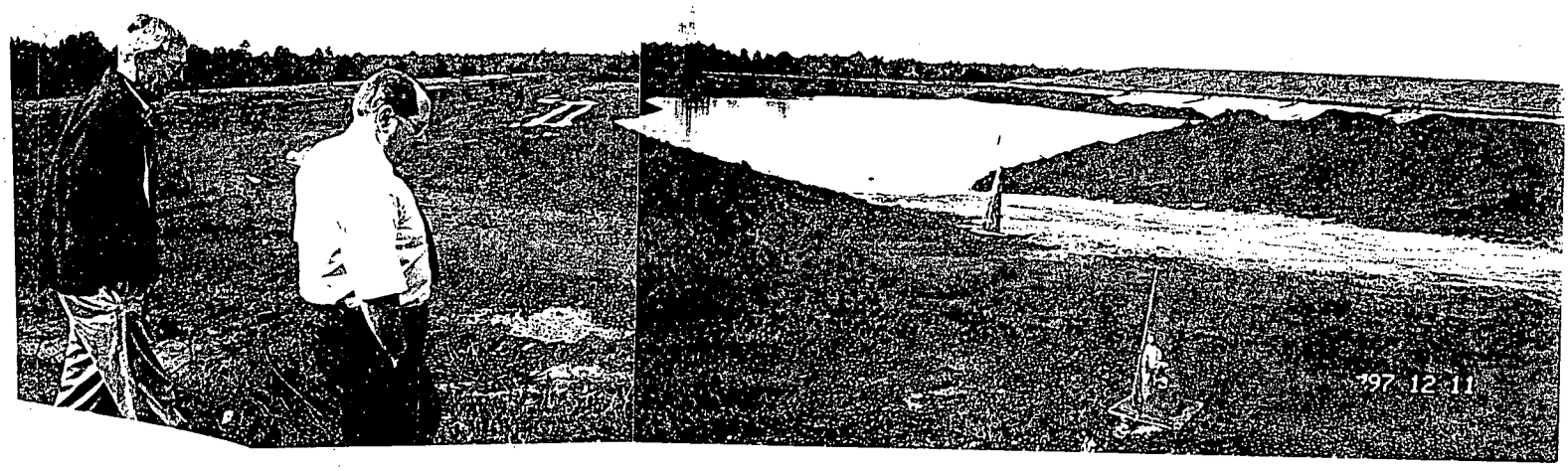
All involved solid waste personnel have reached the end of the line with Pasco County. We are going to require them to remove leachate and take all other corrective measures in accordance with a FDEP schedule within an NOV and include FDEP costs associated with these violations as well as economic gain for the County.

Just remember what I told you some time ago relative to Stephanie

Hinson's comments about the County bolstering the fact they don't pay penalties to FDEP. This County is not willing to accept any technical guidance and clearly does not know how to operate the landfill.

I will discuss this matter at any time you have available.

By the way Kim informed Vince of our site visit today but he said he could not be available due to other commitments and the landfill operator was out sick.


'97 12 11

Date: 11/10/97 05:12:32 PM
From: Allison Amram TPA
Subject: W. Pasco leachate
To: Jeff Hilton TPA
CC: Kim Ford TPA
CC: Danielle Nichols TPA
CC: Robert Butera TPA

Jeff-

I noticed that you signed out the W. Pasco leachate quality file -- thanks for signing it out! I just wanted to let you know that we have more recent results -- leachate was sampled 7/18/97 in cells A-1 and SW-1 (nothing for A-2, which they should be sampling if they are filling!)

Primary tank:	chlorides	27,609 mg/l
	TDS	42,200
	Cond.	52,000
	sodium	4,800
Secondary tank:	chlorides	2,349
	TDS	5,760
	Cond.	6,070
	sodium	509

I have the results in my office if you'd like to see them.

FYI.

Allison

Waste
West Pasco CI LF

PASCO COUNTY, FLORIDA

DADE CITY (352) 521-42
LAND O' LAKES (813) 996-73
NEW PORT RICHEY (813) 847-8145
FAX (813) 847-8064

UTILITIES SERVICES BRANCH
PUB. WKS./UTILITIES BLDG., S-213
7530 LITTLE ROAD
NEW PORT RICHEY, FL 34654

RECEIVED
OCT 0 6 1997
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

September 30, 1997

Richard Garrity, P.E., Director
of Southwest Florida Water
Management District
Dept. of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-3818

RE: Emergency Detonation Thermal Treatment of
Certain Hazardous Waste (62-763.320, FAC)

Dear Mr. Garrity:

Thank you for your letter of September 18, 1997, regarding the above-referenced subject. The enclosed plat plan shows the secured area as indicated in 62-730.320(1)(e) (distances of 670 feet 1,250 feet, 1,730 feet, and 2,260 feet). The area indicated has no solid waste nor production of methane gas.

Detention Pond No. 1 has never retained or shown any evidence of water retention. The designated area has prohibited access to the general public and has since this West Pasco area was originally opened. Solid Waste personnel have full access and control of the area. I believe this should be considered as a safe and acceptable area.

Sincerely,

Vincent Mannella, P.E.
Solid Waste Facility Manager

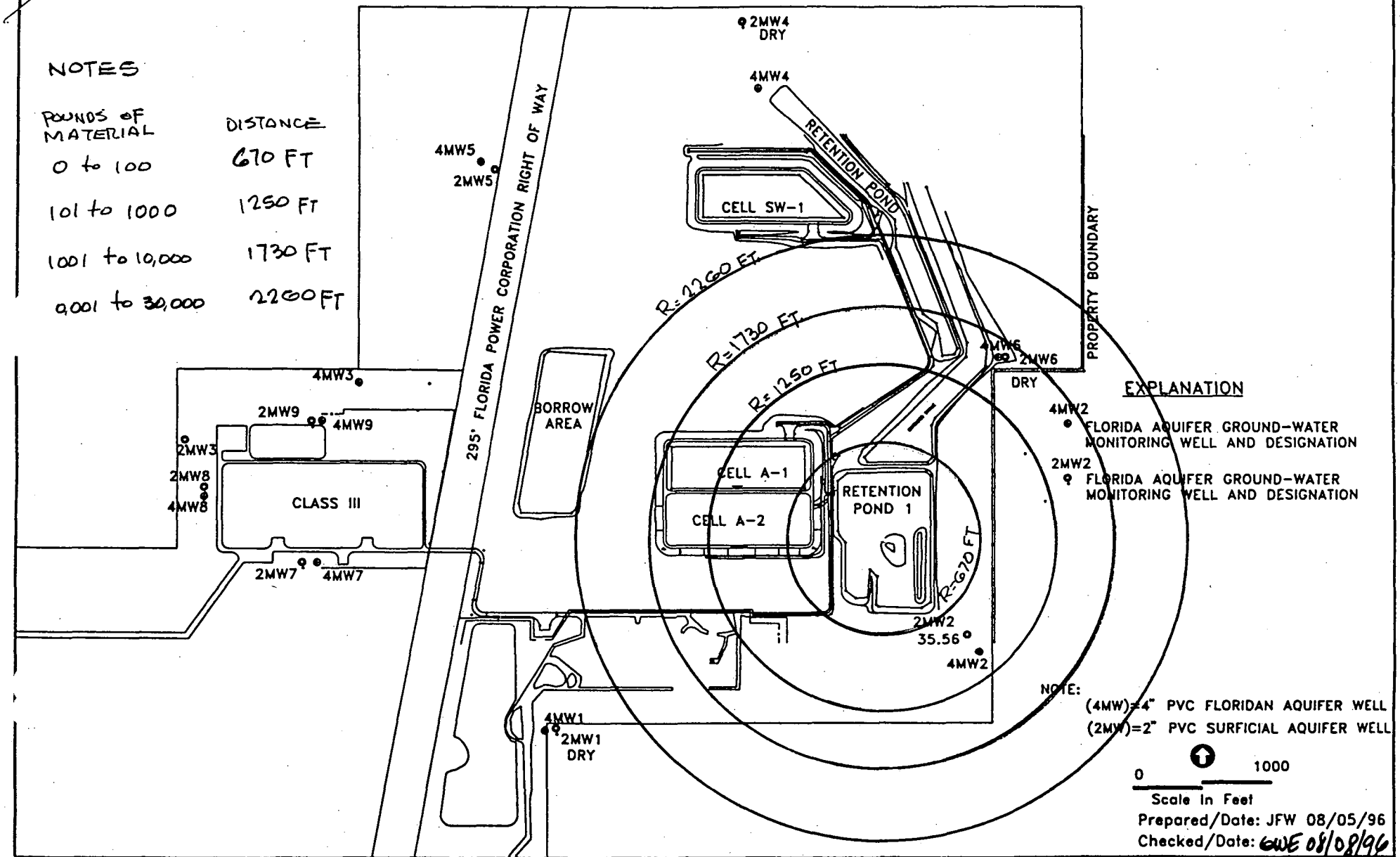
VM/ltr/g092602

Enclosure

cc: Robert Butera, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, FL 33619-88318
Kim Ford, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, FL 33619-8318
John J. Gallagher, County Administrator
Douglas S. Bramlett, Assistant County Administrator (Utilities Services)
Ronald J. Walker, Solid Waste Superintendent

NOTES

POUNDS OF MATERIAL	DISTANCE
0 to 100	670 FT
101 to 1000	1250 FT
1001 to 10,000	1730 FT
9,001 to 30,000	2200 FT



West Pasco Class I Landfill
Pasco County
Board of County Commissioners
Utility Services Branch
Pasco County, Florida

EMERGENCY DETONATION PLAN

SOLID WASTE - RESOURCE RECOVERY SECTION - WEST PASCO CO.

SEPT. 24, 1997

Figure 1