

ATTACHMENT E

SOLID WASTE CONSTRUCTION AND OPERATIONS REQUIREMENTS
(WACS Facility ID: 45799)

1. General

This site shall be classified as a Class I landfill [Solid Waste Cells SW-1 & SW-2 and Ash Monofill Cells A-1 through A-4] and shall be constructed, operated, closed, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-302, 62-330, 62-520, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

A. Prohibitions. The prohibitions of F.A.C. Rule 62-701.300 shall apply to operations and new structures.

B. Pollution Prevention. The landfill shall be designed, constructed, operated, maintained, closed and monitored throughout its design period to control the movement of waste and waste constituents into the environment so that ground water and surface water quality standards and criteria of Chapters 62-302 and 62-520, F.A.C., will not be violated beyond the zone of discharge specified for the landfill.

C. Access Control. To prevent unauthorized waste disposal, as required by F.A.C. Rule 62-701.500(5), access to and use of the Facility shall be controlled by fencing, gates, or other barriers, as well as signs and Facility personnel.

D. Records Maintenance. As required by F.A.C. Rule 62-701.500(13), records shall be kept of all information used to develop or support the landfill design and any supplemental information provided to DEP pertaining to construction of the landfill. Records pertaining to the operation of the landfill shall be kept for the design period of the landfill. Records of all monitoring information, including calibration and maintenance records, all original chart recordings for continuous monitoring instrumentation, and copies of all reports required by these conditions, shall be kept for at least ten years. Background water quality records shall be kept for the design period of the landfill.

E. Professional Certifications. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

F. Nuisance Conditions. Nuisance conditions shall be controlled by conducting site activities in the manner described in these Conditions of Certification, the operations plan, and applicable Department rules.

2. Construction

The Class I landfill disposal units associated with this site shall be constructed in accordance with all applicable requirements of Chapter 62-701, F.A.C., and in accordance with all applicable requirements of other Department rules.

A. General Construction Requirements. All construction shall be done in accordance with the approved design, drawings, CQA plan, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether an amendment or modification is required. If an

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amendment or modification is not required, it may be processed in accordance with Section A, Condition XX Procedures for Post-Certification Submittals.

B. Certification of Construction Completion. Upon completion of construction, the engineer of record shall certify to the Department in accordance with Rule 62-701.320(9)(b), F.A.C., that the permitted construction is complete and was done in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described in detail and the reasons therefore enumerated. The following documents shall be submitted along with the Certification:

(1) The final report and record drawings showing that the liner system has been installed in substantial conformance with the plans and specifications for the liner system. The record drawings must include the results of the surveys of the liner, base grade and collection pipe slopes.

(2) The final report showing the results of the geomembrane liner leak location survey, if applicable.

(3) Results of testing of geosynthetic and soil components of the liner system.

C. Construction Quality Assurance Plan pursuant to 62-701.400(1), F.A.C.

D. Approval of Certification. The licensee shall not begin using newly constructed Class I disposal unit at the facility until one of the following has occurred: (1) the Department has stated in writing that it has no objection to the certification of construction completion; or (2) at least 30 days have passed since the certification was submitted and the Department has not responded in writing to the certification.

3. Operation

Operation of the associated landfill shall be done in accordance with all applicable portions of Chapter 62-701, F.A.C., including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in the Conditions Section B. Condition I. Department of Environmental Protection, C – Resource Recovery Facility in its entirety. Review shall be performed in accordance with the Conditions Section A. Condition VI. Design and Performance Criteria. The final plans for this Facility shall include provisions for the isolated temporary handling of suspected hazardous, toxic, or infectious wastes.

A. No suspected or known hazardous, toxic, or infectious wastes as defined by applicable Federal, State or local statutes, rules, regulations or ordinances shall be burned or landfilled at the site.

B. Special Wastes. The disposal or management of any "special wastes" shall be in accordance with F.A.C. 62-701.300(8), 62-701.520 and any other applicable Department rules, to protect the public safety, health and welfare. All solid wastes, recovered materials or residues shall be managed in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local or state regulations. Recovered resources which may be offered for sale shall comply with applicable regulations of all appropriate state agencies.

C. Landfill Operation Requirements. This Facility shall be operated in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the current Department-approved Operations Plan (see attached Appendix I). Changes to the Operations Plan shall be submitted to the Department for review and written approval prior to implementation. The Department shall approve or disapprove requests for minor changes to the Operations Plan within 30 days of such change request. A minor change is defined to include: changes to filling sequence, changes to equipment used, dimensions of the working face, and similar daily operational issues.

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D. Operating Personnel. As required by F.A.C. 62-701.320(15) and 62-701.500(1), at least one operator shall be at the landfill at all times when the landfill receives waste and at least one spotter shall be at the working Face when the landfill receives waste. Copies of the training verifications shall be maintained at the site for the Department's review.

E. Operation Plan and Operating Record. The landfill owner and operators shall have an operations plan which meets the requirements of F.A.C. 62-701.500(2). A copy of these Conditions of Certification, operations plan, construction reports and record drawings, and supporting information shall be kept at the Facility at all times for reference and inspections. The operating record as required by F.A.C. 62-701.500(3) is part of the operations plan, and shall also be maintained at the site.

F. Authorized Waste Types. The facility is authorized to manage only the following waste types defined in Rule 62-701.200, F.A.C.:

- (1) Fly Ash
- (2) Bottom Ash
- (3) Ash Residue
- (4) Class I Waste

G. Unauthorized Waste Types. The facility is not authorized to accept, process or dispose any waste types not listed in F, above. Any unauthorized waste inadvertently received by the facility shall be managed in accordance with the approved Operation Plan.

H. Landfill Elevation. The final elevation for Ash Monofill A-4 shall not exceed +122 feet as shown on Sheets C-15 and C-15A of the plan set titled West Pasco Class I Landfill Cell A-4 Construction dated November 2008. The final elevation of Solid Waste Cell SW-2 shall not exceed +95 feet as shown Sheet C-1 Cell SW-2 Site Life Estimate dated April 2015.

I. Initial Waste Placement. The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.

J. Method and Sequence of Filling. The method and sequence of filling shall be in accordance with the current Department-approved Operations Plan.

K. Waste Records. Waste quantity records shall be maintained as required by F.A.C. 62-701.500(4) and submitted to the Department quarterly.

L. Control of Access. Access to, and use of, the Facility shall be controlled as required by F.A.C. 62-701.500(5).

M. Monitoring of Waste. Wastes shall be monitored as required by F.A.C. 62-701.500(6). No regulated hazardous waste as identified in Chapter 62-730, F.A.C. shall be accepted for disposal at this site. Hazardous waste should be disposed of in accordance with F.A.C. 62-701.300(4) and 62-701.500(6)(b).

N. Working Face and Waste Handling Requirements. All solid waste disposed of in Cells SW-1 and SW-2 area shall be covered as required by F.A.C. 62-701.500(7). As required by F.A.C. 62-701.500(7)(d), the operator shall minimize the size of the working Face. The working Face of a cell shall be only wide enough to accommodate vehicles discharging waste. Leachate from the working Face shall be managed as described in the approved Operations Plan. Runoff from the landfill will be considered stormwater if the flow passes over only areas with no exposed waste.

(1) Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e), and as described in the approved Operations Plan.

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(2) Alternate cover materials not identified herein shall be approved by the Department prior to use at the Facility. For those areas where solid waste will be deposited on the working Face within 18 hours, initial cover may consist of a temporary cover or tarpaulin. Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in a six (6) inch compacted layer, may be used as initial cover as described in the approved Operations Plan.

(3) Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(g). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.

O. Final Cover. Portions of the landfill which have been filled with waste to the extent of final closure designed dimensions shall be closed (shall receive final cover) in accordance with F.A.C. 62-701.500(7)(g) and all applicable requirements of Department rules.

P. Erosion Control. Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system. Such measures shall be implemented within three days of occurrence. If the erosion cannot be corrected within seven days of occurrence, the landfill operator shall notify the Department and propose a correction schedule.

Q. Leachate Management. Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8), these conditions of certification, and the current Department-approved Operations Plan.

(1) Leachate storage tanks shall be inspected as required by F.A.C. 62-701.400(6)(c)9, and inspection results shall be made available to the Department upon request.

(2) Each pump station shall be inspected on a semi-annual basis. Documentation of all inspections shall be kept on file at the Facility.

(3) Leachate generation reports as required by F.A.C. Rule 62-701.500(8) shall be compiled monthly and submitted to the Department quarterly.

(4) A report assessing the effectiveness of the leachate collection and removal system, force mains and gravity pipe lines, leachate storage tank and treatment Facility shall be submitted to the Department at least every five years. As part of the five-year assessment, the entire leachate collection and removal system, force mains and gravity pipelines, shall be visually or video inspected or pressure tested where possible to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. Those portions of the tank secondary containment liner which can be readily visually inspected shall be inspected for damage, and repaired if necessary. The report shall include the results of the inspection and any corrective measures undertaken to demonstrate adequate performance, signed and sealed by a professional engineer.

R. Landfill Gas Management

(1) Gas Monitoring and Control.

a. Landfills that receive biodegradable wastes shall have a gas management and control system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. A gas management and control system is not necessary until such time as the methane generation rate exceeds the thresholds in 40 CFR 60, Subpart WWW.

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b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C. (less than 25% of the lower explosive limit (LEL) for combustible gases in structures and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of **quarterly gas monitoring** required by Rule 62-701.530(2)(c), F.A.C., conducted at the locations listed in Specific Condition #F.3., shall be submitted to the Department by the following dates:

<u>Measured During</u>	<u>Report Submitted By</u>
Quarter 1	April 15 th of each year
Quarter 2	July 15 th of each year
Quarter 3	October 15 th of each year
Quarter 4	January 15 th of each year

2. Gas Monitoring Locations. The gas monitoring probes installed in proximity to solid waste cells SW-1 and SW-2 shall be sampled at least **quarterly** for concentrations of combustible gases determined as a percentage of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C.

<u>Monitoring Probe</u>	<u>Location Description</u>
Solid Waste Cell SW-1	GMP-1, GMP-2, GMP-3 and GMP-4

Solid Waste Cell SW-2	GMP-5 and GMP-6
All gas probes are to be clearly labeled and easily visible at all times	

3. Gas Remediation. If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the licensee shall immediately take all necessary steps to ensure protection of human health and notify the Department. Within 7 days of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed within 60 days of detection unless otherwise approved by the Department.

4. Odor Remediation Plan. The facility shall be operated to control objectionable odors. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the licensee shall develop and implement an odor remediation plan in accordance with the requirements of Rule 62-701.530(3)(b), F.A.C.

S. Stormwater System Management. Stormwater shall be managed as required by F.A.C. 62-701.400(9). The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate.

T. Record Keeping Requirements

1. Waste Quantity Records. Waste records shall be compiled monthly, and copies shall be provided to the Department no less than annually by February 1st of each year. This information shall be reported to the Department through the DEP Business Portal located at: <http://www.fldepportal.com/go>.

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2. Estimate of Remaining Life. The licensee shall submit the annual estimate of the remaining life and capacity by March 1st of each year. The report is required by Rule 62-701.500(13)(c), F.A.C. and must be submitted to the District Office and to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400
SWPP@dep.state.fl.us

U. Waste Burning. Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.300(3).

V. Liner Location. The top edge of the geomembrane liner shall be clearly identified in the field to prevent waste disposal and leachate runoff outside the geomembrane liner.

4. Closure Requirements.

A. Prior to initiating closure of a solid waste disposal unit, or part of a solid waste disposal unit, the Licensee shall receive authorization from the Department in one of the following ways.

(1) If the landfill is operating under a Department approved Closure Plan with sufficient detail to provide reasonable assurance of compliance with the closing requirements of Rule 62-701.600, F.A.C., then the Licensee shall notify the Department at least 30 days prior to initiating the closure activities and receive written approval from the Department prior to beginning the work in accordance with the Conditions Section A, Condition XX. Procedures for Post-Certification Submittals.

(2) If the landfill is operating under an approved Closure Plan that requires substantive changes to the closing activities in the permitted Closure Plan, then the Licensee shall request a modification of this license to include sufficient design detail to ensure compliance with the closing requirements of Rule 62-701.600, F.A.C., and shall initiate closing only after the license has been modified in accordance with the Conditions Section A, Condition XXIII. Modification of Certification.

(3) The Licensee shall submit an application to the Department for a closure permit on Form 62-701.900(1) and shall initiate closure activities only after the permit is issued. The application shall include a Closure Plan made up of the following:

- a. A closure design plan;
- b. A closure operation plan;
- c. A plan for long-term care; and,
- d. A demonstration that proof of financial assurance for long-term care will be provided.

B. Closure Design. All closure construction shall be done in accordance with the approved closure design plan. The Department shall be notified before any changes, other than minor deviations, to the approved closure design are implemented in order to determine whether a modification is required. If require it will be processed in accordance with the Conditions Section A, Condition XXIII. Modification of Certification.

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C. Closure Operation Plan. All closure shall be done in accordance with the approved closure operation plan.

D. Certification of Closure Construction Completion. After closure construction has been completed, the engineer of record shall certify to the Department on Form 62-701.900(2) that the closure is complete and that it was done in accordance with the plans submitted to the Department except where minor deviation was necessary. All deviations shall be described in detail and the reasons therefore enumerated.

5. Financial Assurance and Cost Estimates

A. Financial Assurance Mechanism

The licensee may not receive waste for disposal or storage in any disposal unit for which financial assurance has not been approved. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. shall be submitted to the Department at least sixty (60) days prior to the planned acceptance of solid waste in any disposal unit. When established, the licensee shall maintain, in good standing, the financial assurance mechanisms. Supporting documentation and evidence of increases associated with cost estimate increases shall be submitted within the time frames specified in Rule 62-701.630, F.A.C.

All submittals in response to this specific condition shall be sent to:
Florida Department of Environmental Protection
Financial Coordinator - Solid Waste Section
2600 Blair Stone Road, MS 4548
Tallahassee, Florida 32399-2400

B. Cost Estimates.

(1) The licensee shall submit closure cost estimates, including annual adjustments for inflation, in accordance with the requirements of Rule 62-701.630(3) and (4), F.A.C., and 40 CFR Part 264.142(a) using Form 62-701.900(28).

(2) An owner or operator using an escrow account shall submit the annual inflation adjusted estimate(s) between July 1 and September 1. An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the inflation adjusted cost estimate(s) between January 1 and March 1.

(3) A revised closure cost estimate, made by recalculating the total cost of closure or long-term care, in current dollars shall be submitted every 5 years in accordance with 62-701.630(3), F.A.C.

(4) All submittals in response to this specific condition shall be sent to the District Office and a copy to the address identified in this Attachment (Attachment E) 5. Financial Assurance and Cost Estimates, A., or to the following email address:
Solid.Waste.Financial.Coordinator@dep.state.fl.us.

West Pasco Class I Landfill

Operation Plan

Volume 1

Ash Cell A-4

December 2008

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DEC 10 2003
SOUTHWEST DISTRICT
TAMPA

Landfill Operations Plan

1.0 Introductions

This Operations Plan is for the West Pasco Class I Landfill, specifically for disposal unit Cell A-4. West Pasco Class I Landfill is an integral unit of the Pasco County Solid Waste Management System (System). The System is comprised of: a mass-burn Waste-To-Energy Facility (WTE Facility), the West Pasco Class I Landfill, the West Pasco Class III Landfill and Recycling Center, the East Pasco Transfer Station and Recycling Center, and the East Pasco Class I Landfill. The West Pasco Class I Landfill, WTE Facility, and the West Pasco Class III Landfill are co-located on an 800-acre site. The entire 195-acre West Pasco Class I Landfill and the Resource Recovery Facility are permitted under the Florida Electrical Power Plant Siting Act in 1988. The West Pasco Class III Landfill was permitted separately under Chapter 62-701, F.A.C., also in 1988.

The West Pasco Class I Landfill is conceptually designed in a phased series of individual disposal cells as originally depicted in the **drawing set dated June 1987 for the entire build-out and Attachment 2 dated July 28, 2006 by CDM.**

The West Pasco Class I landfill currently has two Solid Waste (SW) and three Ash (A) cells; each approximately 10 acres in size. The initial phase of construction was completed in 1991, including the construction of cells SW-1 and A-1, eastern portion of the perimeter access road, retention ponds 1 and 2, an equipment maintenance building, and other associated drainage work. Cell A-2 was constructed in 1995 and construction of Cells SW-2 and A-3 were completed in 2002. Construction of the Cell A-4, approximately a 20 acre cell, is anticipated to be completed by 2009.

Majority of the processible municipal solid waste (MSW) is combusted in the WTE Facility. The residual ash is quenched and screened to remove large materials. A magnetic separator is used to remove ferrous metals. Both the large materials and ferrous metals are sold for recycling and contribute in part to the requirements of 62-701.340(4)(d). The ash is then disposed off in the active ash cell. The by-pass waste is disposed in the active SW unit.

Whenever processible waste is being bypassed from the Facility to the active solid waste disposal unit, the Landfill Supervisor has the staff at the scale house to direct incoming haulers to the active solid waste disposal unit. Trained spotters are assigned to the active solid waste disposal unit.

2.0 Operating Personnel Training

The Pasco County Utilities Services Branch (PCUSB), which is responsible for the operations of the landfill, has a pro-active approach to training and certifying all landfill personnel and currently has trained operators who have satisfied the

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requirements of Chapter 62-701.500(1), F.A.C and 62-701.320(15). Additionally, Pasco County has staff members who have been trained and are certified through or by the TREEO Solid Waste Landfill Operator Short Course and are used as trained spotters at the landfill and elsewhere in the solid waste management system. All operators have completed 24 hours of initial training and have passed the examination as part of the 24 hours of initial training. Within three years after passing the examination and every three years thereafter, each operator will complete the additional 16 hours of continued training. The spotters have completed 8 hours of initial training. Similar to operators, spotters will complete 4 hours of continued training every three years after initial training. All supervisors are trained operators.

Copies of course completion certificates are kept on file. The landfill has at least one trained operator at the working face during all times when the landfill receives waste. At least one trained spotter is at each working face at all times to detect unauthorized wastes when the landfill receives waste other than ash.

3.0 Landfill Operations Plan

3.1 Designated Responsible Operating and Maintenance Personnel

The Pasco County Board of County Commissioners sets policy for the administration and management of the disposal of solid waste in the County. Bruce Kennedy, Assistant County Administrator, Utilities Services Branch, coordinates solid waste management in the County. He is assisted by John Power, Solid Waste Facilities Manager, who manages the operation and maintenance of the solid waste management facilities.

The following current schedule is typical of the staffing for the West Pasco Class I Landfill.

<u>Certified Landfill Operators</u>	<u>Six Days*</u>
First Shift Supervisor	M,T,W,Th,F
Second Shift Supervisor	T,W,Th,F,S
<u>Equipment Operator/Spotters</u>	
First Shift Operator	M,T,W,Th
Second Shift Operator	W,Th,F,S
*Landfill is closed on Sundays. No ash is hauled to ash monofill disposal unit on Sundays	

Both of the Certified Landfill Operators and both of the Equipment Operators are qualified to substitute for the other and perform their duties. This cross training allows for a backup operator when one cannot be at the site.

3.2 Contingency Operations for Emergencies

3.2.1 Fire Emergency Procedures

In the unlikely event that an uncontrollable fire occurs at the landfill site:

- Field staff will contact scale house attendant by two-way radio and provide details;
- Scale house attendant will contact Landfill Supervisor;
- Scale house attendant will contact 911 to request fire department assistance;
- Landfill Supervisor will direct additional equipment and manpower to the scene as necessary.
- Fire hydrants are located on the side of the access road for water supply.

If the fire is controllable:

- Field staff will contact scale house attendant by two-way radio and provide details;
- Field staff will put out fire using landfill equipment and soil from an on-site stockpile;
- Scale house attendant will contact Landfill Supervisor;
- Scale house attendant will contact 911 to request fire department assistance, as necessary;
- Landfill Supervisor will inspect scene.

If necessary, solid waste will be directed to other permitted disposal facilities as appropriate.

3.2.2 Natural Disasters Procedure

If notice is available of a pending natural disaster (tornado, hurricane, etc.), the Landfill Supervisor will direct staff to:

- Check stormwater management system for any blockages at culverts, pipes, etc.;
- Check leachate management system levels, pumping units, etc.;
- Secure equipment where appropriate.

After the natural disaster has occurred, the Landfill Supervisor will direct staff to assess damage to and operational status of:

- Access roads;

- Stormwater management system;
- Leachate management system;
- Landfill equipment;
- All landfill cells.

The Landfill Supervisor will report findings to the Solid Waste Manager.

If the natural disaster results in an inflow of Class I waste to the facility that when combined with the normal daily waste is in excess of the system capacity, the materials can be stockpiled/disposed of in the active Solid Waste Cells. In an emergency, the Class III landfill can be used to the extent needed for a staging area only for Class III wastes. If it is necessary to store debris outside of lined areas, FDEP authorization shall be requested.

Once the rate of waste material inflow decreases to below capacity of the WTE Plant, the waste will begin to be directed into the WTE Plant. Storage of debris is a temporary measure to the extent practicable.

3.2.3 Procedures during Equipment Failure

If equipment fails, the Landfill Supervisor will be notified so that arrangements can be made for the equipment's repair. If the downtime is expected to hinder landfill operations, the Landfill Supervisor will obtain backup equipment under established cooperative lending agreements with other solid waste management facilities or other County departments.

3.3 Controlling Types of Waste Received at Landfill for Ash Cells.

The scale house operator is the first person to visually inspect the loads of wastes that enter the facility. The scale house operator shall visually inspect every load for any prohibited waste as delineated in FAC 62-701.300. If the load is deemed acceptable, the scale house operator will then direct the loads to their proper disposal area. If prohibited types of waste are observed by the spotter in any solid waste disposal area, the Landfill Supervisor will be notified and prohibited wastes will be removed.

Batteries, tires, and used oil will be removed to the Recycling Center, which has facilities for handling these prohibited wastes. Hazardous and medical wastes can be removed under existing arrangements for their proper handling and disposal. These wastes will be removed under the direction of the County Hazardous Waste Department Coordinator in compliance with the solid waste rules. The County Health Department will be contacted for biomedical wastes. Specific Procedures for the removal of prohibited waste by type is listed in **Section 14**.

As mentioned earlier, the majority of the loads are directed to the waste pit at the waste-to-energy facility. The operators of the waste-to-energy facility have at least one operator at all times to check for prohibited wastes. Prohibited wastes shall be removed as needed by the waste-to-energy operator. The waste is checked by certified spotters at WTE facility before acceptance. All prohibited wastes are handled as mentioned above and in Section 14.

After the loads are deemed accepted by the waste-to-energy operator, the waste is processed.

Waste to be placed in Cell A-4 is completely controlled by Pasco County Staff. Only ash from the WTE Facility is disposed off in Ash Monofills.

3.4 Weighing Incoming Waste

All waste entering A-4 shall be weighed and recorded daily at the general Class I scalehouse before disposal.

3.5 Vehicle Traffic Control and Unloading

Private refuse haulers do not routinely enter the West Pasco Class I Landfill unless delivering non-processible waste or when the plant requires that waste be by-passed. During these exceptions, the Landfill Supervisor assigns additional landfill staff to control traffic and direct unloading.

3.6 Method and Sequence of Filling Waste

As noted previously the general layout of West Pasco Class I Landfill is divided into two general areas: the northern portion is for regular MSW and the southern portion is for ash monofill. The middle two cells are for future use and are undesignated and shall remain undesignated until needed.

The liner and leachate collection system will be constructed, one disposal unit at a time (A-1, A-2, A-3, A-4, SW-1, SW-2) with temporary roads and swales for access and surface-water management. The phasing plan is depicted in the **drawing set dated July 2008 by CDM sheets C-6 through C-15A.**

In general, waste filling shall be done in conjunction with the application of a rain tarp as intermediate cover to reduce leachate generation. On the west side of each sub-cell, there are two temporary stormwater sumps and ball valves for the isolation and pumping of captured stormwater into onsite swales or ponds. The rain tarp is a 20 mil geomembrane that serves as intermediate cover for areas that are not expected to be used for disposal in 180 days. All precipitation on the landfill that comes in contact with the rain tarp (and not in contact with ash) shall be captured as stormwater.

Below is a detailed description of the sequence of Cell A-4 phase by phase.

3.6.1 Filling Sequence

Cell A-4 is divided into six sub-cells. The sub-cells are numbered from one to six, starting at the very southwest corner of the cell to the southeast, then from the northwest corner to the north east. The sequence of filling is depicted on drawings dated July 2008 by CDM, **sheets C-6 through C-15A**.

The filling sequence for Cell A-4 will begin starting from the south west cell.

The general filling sequence will be accomplished by filling in each sub-cell to an approximate elevation of 85 feet, with a side-slope of 3:1. A secondary berm (inside the sub-cell divider berms) around the Phase I fill area will be constructed and maintained during the operation, diverting contaminated stormwater to low areas as shown on **sheet C6**. Once all the sub-cells are complete, ash shall be filled at 3:1 slope up to the permitted height of Elevation 120 feet.

The filling sequence is as follows:

Phase I – Filling in sub-cell 1

1. Flag the edge of the liner at the top of the berm or mark with traffic cones. Ash will not be placed within two feet of the flagged or marked line.
2. Close the ball valves in sub-cell 2 and 4. All other ball valves will be in open position. Install stormwater pumps in sub-cell 2 and sub-cell 4. Stormwater from all sub-cells except sub-cell 1 will be pumped to the surface drainage swales.
3. Place a berm/swale around the active phase of the cell area. All waste and water in contact with waste will be contained within the bermed area. (See **sheet C-6**).
4. Ash will be unloaded from the entrance ramp to the cell and spread over the two feet of protective sand cover, constructing a platform. A minimum of 5 feet of initial lift will be placed and rolled to cover the sub-cell 1. The ash for the initial lift will be free from large, sharp objects that may damage the liner system.
5. Continue normal filling operation, maintaining the perimeter berm/swale around the sub-cell 1. Filling the sub-cell 1 will be accomplished by constructing approximately 10-foot lifts, working in a general direction from south to north, and from west to east.
6. As the filling operation progresses, construct an access road using ash from the west of the sub-cell 1 as shown in **sheet C-6**, and provide drainage berm/swales on both sides of the access road and around the perimeter of sub-cell 1 area. Only the portion of the access road within the landfill footprint shall be constructed of ash.
7. Continue the operation until the elevation of 85 feet is achieved as indicated in **sheet C-6**.

8. When filled to specified grade, place rain tarp as an intermediate cover, excluding the access road.
9. Once the rain tarp is in place, construct a 10 to 15 foot wide spillway for stormwater to exit the sub-cell 1 area. This spillway will be constructed by creating an opening in the perimeter berm, filling and grading the perimeter swale/berm with ~~soil or soil mixed with wood chips~~ clean fill. Place the rain tarp along the slope to the elevation of the stormwater swale located at the toe of the cell berm. The rain tarp will be secured using waste tires ties with ropes or sand cement riprap bags along both sides of the spillway.

Temporary rain tarp placement is typically installed by a third party contractor and stormwater is routed as necessary.

Phase II – Filling in sub-cell 2

1. Close the ball valves in sub-cell 3 and 4. All other ball valves will be in open position. Remove stormwater pumps for sub-cell 2 and install them stormwater pumps in sub-cell 3 and sub-cell 4. Stormwater from all sub-cells except sub-cells 1 and 2 will be pumped to the surface drainage swales.
2. Begin the filling operation in the Phase II area in a similar manner as in Phase I. Please see Sheet C7 for additional details.

Phase III- Filling in sub-cell 3

1. Close the ball valves in sub-cell 4. All other ball valves will be in open position. Install stormwater pumps in sub-cell 4. Remove the stormwater pumps from sub-cell 3. Stormwater from all sub-cells except sub-cells 1, 2, and 3 will be pumped to the surface drainage swales.
2. Begin the filling operation in the Phase III area in a similar manner as in Phase I. Please see Sheet C8 for additional details.

Phase IV – Filling in sub-cell 4

1. Close the ball valves in sub-cell 5. All other ball valves will be in open position. Remove stormwater pumps from sub-cell 4 and install them stormwater pumps in sub-cell 5. Stormwater from all sub-cells except sub-cells 1, 2, 3, and 4 will be pumped to the surface drainage swales.
2. Begin the filling operation in the Phase IV area in a similar manner as in Phase I. Please see Sheet C9 for additional details.

Phase V – Filling in sub-cell 5

1. Close the ball valves in sub-cell 6. All other ball valves will be in open position. Remove stormwater pumps from sub-cell 5 and ~~Install~~ install stormwater pumps ~~them~~ in sub-cell 6. Stormwater from sub-cell 6 will be pumped to the surface drainage swales.
2. Begin the filling operation in the Phase V area in a similar manner as in Phase I. Please see Sheet C10 for additional details.

Phase VI – Filling in sub-cell 6

1. All ball valves will be in open position. Remove stormwater pumps from sub-cell 6.
2. Begin the filling operation in the Phase VI area in a similar manner as in Phase I. Please see Sheet C11 for additional details.

Phase VII – Filling the valley between sub-cells 3&6, and 2&5.

1. Remove the intermediate cover (rain tarp) on the area to be filled. The side slope intermediate cover will not be disturbed unless alterations are necessary to ensure stormwater and leachate segregation.
2. Extend the stormwater separation berm (approximately 2 feet) up the slope to the top of Cell A--4 berms as appropriate to provide leachate/stormwater separation.
3. Begin filling the valley area from east to west. Fill the area by constructing approximately 10 foot lifts working in the general direction from south to north and towards west. Continue the filling operation until approximate elevation of 85 feet.
4. Once filling the valley between sub-cell 3&6 and 2&5 is complete, build an appropriate ramp as to continue filling operation to the eastern parts of A-4 up to an elevation of 120. Please see Sheet C12 for additional details.

Phase VIII – Filling in the valley between sub-cells 1&4.

1. Remove the intermediate cover (rain tarp) on the area to be filled. The side slope intermediate cover will not be disturbed unless alterations are necessary to ensure stormwater and leachate segregation.
2. Extend the separation berm (approximately 2 feet) up the slope to the top of Cell A--4 berms as appropriate to provide leachate/stormwater separation.
3. Begin filling the valley area from east to west. Fill the area by constructing approximately 10 foot lifts working in the general direction from south to north

and towards west. Continue the filling operation until approximate elevation of 85 feet.

4. Once filling the valley between sub-cell 1&4 is complete, build an appropriate ramp as to continue filling operation to the eastern parts of A-4 up to an elevation of 120. Sheet C13 for additional details.

Phase IX & IXA– Final Fill Sequence.

1. Remove the intermediate cover (rain tarp) on the area to be filled. The side slope intermediate cover will not be disturbed unless alterations are necessary to ensure stormwater and leachate segregation.
2. Construct the temporary berms as ~~Extend the separation berm (approximately 2 feet) up the slope to the top of Cell A-4 berms as appropriate to provide leachate/stormwater separation between precipitation on the rain tarp.~~
3. Begin filling the valley area from east to west. Fill the area by constructing approximately 10 foot lifts working in the general direction from south to north and towards the east. Continue the filling operation until approximate elevation of 120 at a slope of 3:1. Continue the filling operation at 3% slope at the top to the elevation 122 feet.
4. The entire Cell A-4 will be covered with rain tarp. See Sheets C14 and C15 for additional details.

3.7 Waste Compaction and Application of Cover

The ash will be spread and compacted as necessary by a front-end loader or bulldozer. The ash will require no application of daily cover. On areas where activity is not expected within 180 days, a 20 mil geomembrane (rain tarp) will be installed within seven days.

3.8 Operations of Gas, Leachate, and Stormwater Control

There will be no gas system for cell A-4.

The leachate collection and transmission system consists of gravity drains, sumps, manholes, pump station, and isolation valves in each sub-cell. Drainage of the leachate within cell A-4 is by gravity. The leachate from primary leachate collection system drains to primary leachate collection system manhole and then to pump station by gravity. The leachate from leachate detection system drains to leachate detection system manhole and then gets pumped to the pump station. When the leachate reaches a pre-determined level in the pump station, the leachate is pumped to the pre-stressed concrete 2MG storage tank through a 6-inch HDPE forcemain. Leachate is then pumped into a 6,000 gallon tanker truck of an outside vendor to be treated at the City of Tampa Waste Water Treatment Plant.

The stormwater controls are operated to collect and convey runoff to surface-water management areas for sedimentation control. Surface-water management facilities e.g. drains, culverts, and ditches are maintained by removal of sediments as needed. Surface-water control devices, such as weirs and culverts, are checked and cleaned at least once per week and immediately after a major natural weather event to assure proper performance.

Only stormwater that has not contacted ash or solid waste may be discharged to the surface-water management system.

3.9 Water Quality Monitoring

The Pasco County Environmental Laboratory will perform the water quality monitoring.

Further details relating groundwater, leachate and surface water is detailed in a separate document titled Water Quality Monitoring Plan for the West Pasco County Class I Landfill. This document can be found in **Appendix I of the July 2008 Response to RAI No. 2**this submittal.

If any of the groundwater monitoring wells are damaged or found to be damaged, they will be reported immediately to the Landfill Supervisor who will note the occurrence in his daily operational log. The Landfill Supervisor will also notify the Solid Waste Manager of the damage. The Department will also be notified in accordance with Conditions of Certification Section II. New well construction details will be provided to the FDEP Solid Waste Section for review and approval prior to the construction.

3.10 Start and End of Work Week Procedures

At the end of the workweek, prior to shut down, the Landfill Supervisor will direct staff to:

- Check stormwater management system for any blockages at culverts, pipes, etc.;
- Check leachate management system levels (i.e. pump station/manhole leachate levels, leachate storage tank levels), pumping units for operation, etc.
- Secure equipment.

At the beginning of the work week, immediately after opening, the Landfill Supervisor will direct staff to observe the conditions of and record deficiencies of:

- Access roads;
- Stormwater management system;
- Leachate management system;

- Landfill equipment;
- Disposal units.

Particular attention will be paid when observing the levels in the leachate pump stations, the disposal units, and the leachate storage tank.

4.0 Operating Record

The Operating Record will consist of all records, reports, analytical results, demonstrations, and notifications described by Chapter 62-701.500 (3), F.A.C., including permits, site certification, engineering drawings, and supporting information, and the landfill operator training verification of 62-701.320 (15). The record is considered part of the operation plan and shall be kept on-site at the office of the Solid Waste Manager. Duplicate records are also and is kept at the Pasco County Government Center Utilities Services Branch office located in New Port Richey. Duplicates of permits, conditions of certification, engineering drawings, and the operating plan are kept onsite at the office of the Solid Waste Manager.

The Operating Record will be available during business hours for inspection by Department personnel.

5.0 Waste Records

All solid waste will be weighed as it is received at the weighing facilities located at the entrance to the site. The amount of solid waste received by the type of waste will be quantified according to the thirteen waste types as listed under Chapter 62-701.500(4)(b), F.A.C. Additionally, all ash residues transported from the plant to the West Pasco Class I Landfill will be weighed at the same weighing facilities. All solid waste weights will be recorded in tons per day. Waste reports will be completed monthly, and copies will be provided quarterly to the Department in accordance with 62-701.500(4)(a), F.A.C.

6.0 Access Control

To prevent unauthorized access to the 800-acre site in West Pasco, the entire site is enclosed by chain-link fencing topped with two strands of barb-wire. Access to the site is through one of two gates each of which is controlled by county staff located in a scale house.

Entrance gates at the Class I Landfill and the West Pasco Class III Landfill are chain link and are closed and secured during non-working hours. The entrance gate from the Class III Landfill to the Class I Landfill is internal.

The Landfill Supervisor will check or have checked the integrity of the perimeter fencing on a monthly basis. The Landfill Operators will secure the entrance gates at the end of the operating day. The Landfill Supervisor will ensure that the existing signs indicating the hours of operation and types of waste accepted are maintained.

Wastes are accepted only when scale house attendants are present during operating hours.

7.0 Monitoring of Waste

The Supervisor will establish random examination of deliveries at least three times a week. The assigned spotters will examine each load of solid waste to detect and prevent unauthorized waste disposal. If the landfill supervisor or other trained personnel determines the detected unauthorized waste to be hazardous waste, the area where the wastes are deposited will be cordoned off from public access until proper clean-up, transportation to, and/or disposal at a permitted hazardous management facility has been assured. The landfill supervisor will promptly notify the Department of the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The random examination described above is in addition to the routine spotting of incoming waste.

If unauthorized wastes are detected, the spotter will notify the Landfill Supervisor who will contact the generator, hauler, or other party responsible for shipping the waste to the County facility. The Landfill Supervisor will attempt to determine the identity of the waste sources and facilitate its removal, proper disposal, and correct handling in the future. An individual procedure for disposal of specific prohibited waste is listed in **Section 14**.

The information and observations resulting from each random inspection will be recorded in writing and retained at the site for at least three years. The recorded information will include the following:

- Date and time of inspection;
- Name of the hauling firm or vehicle owner;
- Driver of the vehicle;
- Vehicle license plate number;
- Source of waste;
- Observations made;
- Name and signature of the inspector.

8.0 Procedures for Spreading and Compacting Waste

8.1 Waste Layer Thickness and Compaction.

Ash will be spread in layers approximately two feet in thickness and compacted to as thin a layer as practical, depending on the type of waste received, before the next layer is applied. Ash residue will require only one or two passes with the heavy equipment.

8.2 Special Considerations for First Layer of Waste Placed in a Disposal Unit

The first layer of waste will be selected to be free of large rigid objects that may damage the liner or leachate collection system. Large objects, typically pieces of metals or wooden stumps that exceed 5 square inches, will be removed from the ash prior to disposal. The thickness of the first layer will be at least five feet of compacted waste for each solid waste disposal unit. A trained operator will conduct placement of the first layer. Two feet of sand layer will be placed over~~As the cell is filled, two feet of protective soil shall be placed on the berm side slopes just prior to placement of ash or solid waste so as to protect~~ the geomembrane liner system during construction of Cell A4 to prevent UV damage to the liner system. No vehicles will be permitted to travel directly upon the liner system.

8.3 Construction of Lifts

Solid waste will be placed in lifts. The working face and side grades above land surface shall be at a slope not greater than three feet horizontal to one-foot vertical rise. Lift thickness should not exceed 10 feet.

8.4 Working Face Width

The working face will be only wide enough to accommodate vehicles dumping waste. Under normal operating conditions, the working face will be between 50 feet and 100 feet. The output rate of the ash is set by the capacity of the waste-to-energy plant and therefore, widening of the working face due to increased ash residue production is not anticipated.

8.5 Initial Cover

Initial cover will not be necessary for the ash monofill disposal units. However, a temporary rain tarp will be used as discussed in Section 3.6.

8.6 Intermediate Cover

The ash cell disposal units may be covered with a 20-mil geomembrane, i.e. rain tarp, to promote runoff and minimize infiltration. A 50-foot grid of tires will secure the rain tarp. When disposal activity resumes in the disposal unit, the intermediate cover will be peeled aside within the disposal unit and carefully stockpiled within the active disposal unit for use as a temporary rain tarp for the resumed disposal activity.

Precipitation captured by intermediate cover of the ash cell is considered as Stormwater. The installation of the intermediate cover is by an independent outside contractor who will modify the perimeter berm to route Stormwater as appropriate. Intermediate cover will be installed within seven days for cells areas where disposal activity is not expected within 180 days.

The rain tarp is inspected daily for tear, leachate seeps, holes and any other damage. If damage of the rain tarp is found, an outside vendor is called within 24 hours to remedy the damage.

8.7 Closure Schedule, Closure Plan, Final Cover & Long Term Care Plan

One year prior to the projected date when waste will no longer be accepted, the department will be provided with a written notice with a schedule for cessation of waste acceptance and closure of the landfill.

All users shall be notified of the intent to close the Landfill by posting signs at both of the entrances at least 120 days prior to cessation of waste acceptance. The sign will have the date of closing, location of alternative disposal facility and the name of the person responsible for closing the landfill. If such notice cannot be provided 120 days prior due to unforeseen circumstances, the notice shall be provided as soon as the need to close the facility becomes apparent.

At least 90 days before the date when waste will no longer be accepted, a closure plan, consistent with the requirements of Rule 62-701.600(3), F.A.C. shall be provided.

At least 10 days prior to the cessation of waste acceptance date, a legal advertisement of closure shall be circulated among the affected population by means of newspaper. The Department will be provided with proof of publication within seven day of publication.

Closure procedures shall be in accordance with Chapter 62-701, 6109, F.A.C. Closure procedure shall include the following:

- Closing inspections and approval by the FDEP as required in the closure permit,
- Installation of survey monuments,
- Preparation of a final survey report,
- Certification of closure construction completion,
- Consultation with FDEP before conducting activities at the closed landfill.

Once the solid waste disposal units have been filled to the final grades, final cover of 2 feet of fill material, a 40 mil geomembrane and 2 feet of protective soil with the upper 6" capable of supporting vegetative will be installed, or as directed in 62-701.600(5). The top of the landfill area will be convex with an outward slope of three percent from the center. The side will be completed with slopes not exceeding 3:1. Areas with final cover will be seeded or sodded with grass.

Long-term care will be provided for the landfill pursuant to Chapter 62-701.620. At this time, the Owner anticipates that the proposed final use of the closed landfill will

be open field within the 800 Acre Solid Waste Resource Recovery Facility. The final use for the landfill site will exclude any buildings or other structures, unless such buildings are structures specifically designed to address gas venting and settlement considerations associated with construction over a landfill. Long term care for the site will include maintaining the landscaping, and erosion control for a period of thirty (30) years and maintaining the groundwater monitoring plan for a period of time established by the Department.

West Pasco Class I shall continue to monitor and maintain the facility in accordance with the approved closure plan for 30 years from the closing date. The surface water management system, gas control system, slopes, final cover, embankments, fences, gates, signs, and vegetative cover will be maintained during the long-term care period. The leachate collection, transmission, and disposal system will be operated during the long-term care period. At a minimum, monthly inspection of the closed landfill facilities will be conducted. Pasco County shall maintain the right of access to the site to carry out long-term care requirement. Additional inspections will be conducted following major rainfall events. If a monitoring well or other device required by the plan is destroyed or fails to operate properly, FDEP shall be notified in writing and replace the device within 60 days. Any lease or transfer of the property shall include specific conditions required by Chapter 62-701.620(7), F.A.C.

The Owner of the landfill at the time may apply to the Department for a permit modification to reduce the long term care schedule after a 10-year history after closure in accordance with FAC 62-701.620(3).

The Owner currently poses a right of access to the subject site. The future owner or operator will maintain this right of access route and the property for the life of the landfill and throughout the long term care period of the landfill.

Following completion of the long-term care period, FDEP shall be notified with a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

The above closure schedule, plan and long-term care is applicable to the final build out of the entire 195-acre landfill. Grades of the final build out are included in the Feb 1987 drawing set under Reference 3 – Power Plant Siting Act Application, Volume IV.

8.8 Scavenging Policy

Scavenging will not be allowed for Cell A-4.

8.9 Litter Policing Methods

Litter control of the 800 acre property is in the combined responsibility of Pasco County Personnel and the waste-to-energy facility contracted operator.

Litter generated within the landfill site is expected to be minimal. Also, mixed ash residue (both bottom ash and fly ash) is naturally cementitious. Since all ash residues are quenched with water at the waste-to-energy facility, dust is not a concern at the facility nor at the ash monofill.

In the event the litter becomes an issue, the Landfill Supervisor will initiate the following litter control methods:

- Require delivery vehicles remain covered until entry into the active disposal unit;
- Routine clean-up around disposal unit and access roads within 24 hours;
- Maintain small working face and effective initial cover only for solid waste cells.

8.10 Erosion Control Procedures

Grass vegetative cover will be established and maintained on all landfill berm outer slopes, stormwater retention pond outer slopes, and along access roads. The Landfill Supervisor or his designee will conduct once a week inspections (twice per week during the wet seasons) and immediately after heavy storms to detect any emerging erosion. Landfill staff will promptly repair detected erosion. The County shall notify the FDEP of any erosion problem expected to not be corrected within 7 days and provide a schedule for its repair.

9.0 Operational Procedures for Leachate Management

9.1 Leachate Level Monitoring, Sampling, Analyses, and Data Results Submitted to the Department

The leachate sampling and analysis will be performed semi-annually by the Pasco County Environmental Laboratory as described in the Water Quality Monitoring Plan for the West Pasco County Class I Landfill of **Appendix I of the July 2008 response to RAI No. 2** ~~this submittal~~. The results will be reported to the Department.

9.2 Operations and Maintenance of Leachate Collection and Removal System, and Treatment as Required

The Landfill Supervisor will daily review the leachate collection and removal system data to insure that the head over the liner is maintained below 12 inches and that generation rates measured in the secondary leachate collection system are not excessive, i.e., above ~~1,000~~ 100 gallons per acre per day. If exceedance is detected of more than ~~1,000~~ 100 gallons per acre per day, the Solid Waste Manager will be notified so the exceedances can be addressed promptly and the Department be notified of corrective actions.

Leachate from A4, both the primary and secondary will be gravity drained into their respective HDPE header pipes and respective manholes before ultimately draining into a common pump station. Leachate from the secondary manhole will be pumped

to the main leachate pump station. From the pump station, the leachate will be pumped to the 2 million gallon Crom leachate storage tank through a 6" HDPE forcemain. There is no additional treatment to the leachate before entering the leachate storage tank. Leachate is then pumped into a 6,000 gallon tanker truck of an outside vendor to be treated at the City of Tampa Waste Water Treatment Plant.

The maximum leachate level in the leachate storage tank is always maintained at few feet below elevation 79.36 feet.

9.3 Procedures for Managing Leachate if it Becomes Regulated as a Hazardous Waste

Pasco County will comply with the State and Federal rules if the leachate is classified as hazardous waste.

9.4 Agreements for Off-Site Discharge and Treatment of Leachate

Pasco County has an agreement to transport and dispose of ash cell leachate at the City of Tampa WWTP.

9.5 Contingency Plan for Managing Leachate during Emergencies or Equipment Problems

If equipment problems occur (such as pump failure) so that leachate cannot be removed from the leachate pump station and the leak detection manhole, the Solid Waste Manager will be notified immediately so that arrangements can be made for equipment repair or replacement. If problems occur with the leachate transmission pipeline or with the Leachate Management System, the Landfill Supervisor will be notified so that arrangements can be made to correct the problem and, if necessary, to transport leachate by tanker truck to approved disposal sites identified in Section 9.4.

9.6 Procedures for Recording Quantities of Leachate Generated in Gallon/Day

The Landfill Supervisor will direct staff to daily record the leachate levels measured in the Crom tank at the leachate treatment facility. Flow meter readings from the leachate pump station and leachate detection system manhole will be recorded daily. These data will be retained on-site as part of operation record and submitted to FDEP upon request on a quarterly basis.

9.7 Procedures for Comparing Precipitation Experienced at the Landfill with Leachate Generation Rates

The Landfill Supervisor will direct staff to daily check and record rainfall collected in an on-site rain gauge. The data will be recorded along with the leachate generation data. Leachate generation rates for each disposal unit will be measured and the

amount of rainfall will be recorded. A copy of the recorded data will be reported to the Department ~~upon request~~ on a quarterly basis.

9.8 Maintaining and Cleaning the Leachate Collection System

New leachate collection systems shall be pressure cleaned ~~or inspected~~ and inspected by video recording after construction but prior to initial placement of wastes. The existing leachate collection system shall be pressure cleaned or inspected by video recording at the time of permit renewal. Leachate system cleaning or video inspections shall be performed every five years. Results of the collection system cleanings or inspections shall be made available to the Department ~~upon request~~.

10 Routine Gas Monitoring Program for the Landfill

No gas monitoring will be conducted relative to the ash monofill.

11.0 Procedures for Operating and Maintaining the Landfill Stormwater Management

Surface water is prevented from entering the waste-filled area through a network of berms and drainage ditches. A large swale is located along the interior side of the access road. The swale is designed to receive runoff from the pre-developed and any closed-out areas of the landfill and direct it to one of the major retention basins.

The Landfill Supervisor will routinely inspect the stormwater management system. Particular attention will be given to inspecting the culverts under the access road for any blockage. The stormwater management system will also be inspected prior to a natural disaster if sufficient notice is available, and after any natural disaster (see Sections 3.2.2 and 3.8).

12.0 Equipment and Operation Features

12.1 Sufficient Equipment for Excavating, Spreading, Compacting, and Covering Waste

The West Pasco Class I Landfill has been operating since 1990. Existing equipment has proved sufficient. The equipment available at the West Pasco Landfill is as follows:

Compactor	2
Bulldozer	2
Front-end loaders	1
Off road truck	1
Leachate pumps	4

12.2 Reserve Equipment or Arrangements to Obtain Additional Equipment within 24 Hours of Breakdown

Reserve equipment is available from the County's Public Works Division. All equipment on the list, with the exception of the compactor, is available from Public Works on a temporary basis. Additionally, the County provides for the replacement of equipment through a replacement account funded monthly during the expected life of the equipment.

12.3 Communication Equipment

Communication between personnel in the West Pasco Landfill Maintenance Building, Scalehouse, the West Pasco Class III Scalehouse, and landfill staff operating equipment is maintained by two-way radios and the master communication system maintained for all County departments. Additionally, landfill staff can contact each other by two-way radios. Telephones are available on site.

12.4 Personnel Shelter and Sanitary Facilities, First Aid Equipment

The West Pasco Landfill Maintenance Building provides the nearest shelter to the West Pasco Class I Landfill staff. The building includes office space, restrooms, and showers as well as two equipment/vehicle bays. Basic first aid is available at the maintenance building and all vehicles on site have first-aid kits.

12.5 Dust Control Methods

The access road is paved. Unpaved, interior roads will be wetted down with water using a spray truck on an as-needed basis. Heavy equipment is enclosed and air-conditioned. Dust masks, goggles, and hard hats are available to personnel working in excessively dusty areas.

12.6 Fire Protection

Fire extinguishers are provided on all heavy equipment operating in the waste fill areas. Staff is directed to contact the Fire Department as discussed under Section 3.2.1 Fire Emergency Procedures.

12.7 Litter Control

Private refuse haulers are not allowed in the West Pasco Class I Landfill except when non-processible or by-pass wastes are being delivered to the solid waste disposal unit. During these exceptions, the landfill supervisor will require loads be covered, working face be kept to a minimum, cover applied efficiently, and routine clean up of litter. Litter will be collected daily on operating days.

12.8 Signage

Signage indicating operating authority, traffic flow, hours of operation, and disposal restrictions are provided at the entrances to the site and the West Pasco Class III

Landfill and Recycling Center. The landfill supervisor will ensure the signage is maintained.

12.9 Access Road

All roads providing access to the landfill disposal units are paved with asphalt or concrete. The roads include access roads from the site, the West Pasco Class III Landfill and Recycling Center, a perimeter road, and entrance ramps to the constructed disposal units. The Landfill Supervisor will insure that the access roads are maintained. Access roads are provided to all monitoring wells and other monitoring devices.

13.0 Additional Recordkeeping and Reporting Requirements

13.1 Permits and Plans

Records and construction plans used for developing new disposal units and other supplemental information will be maintained for the design period of the landfill in the Utilities Services Branch files.

13.2 Monitoring and Maintenance Records

Background water quality records will be maintained for the design period of the landfill in the Utilities Services Branch files. All other monitoring information including calibration and maintenance records, chart recordings for continuous monitoring instrumentation, and other records required by the permit shall be retained for a ten-year period. These records will be maintained by the Utilities Service Branch. Records, which are more than five years old and required to be retained may be archived, if they can be retrieved by the landfill operator for inspection within seven days.

13.3 Estimates of Remaining Landfill Life

The Solid Waste Manager will submit annually to the Department estimates of remaining capacity of the constructed and unconstructed, waste disposal units. Estimates will be maintained in the Utilities Services Branch files.

13.4 Hydrological Report

A technical report, prepared, signed, and sealed by a P.G. or P.E. with experience in hydrogeologic investigations, will be submitted to the Department every two years. The report will summarize and interpret the water quality data and water level measurements collected during the previous two years.

The report will also include tabular and graphical displays of any parameters detected and water level hydrographs for all monitoring wells. The report will further show trends and comparisons between zones or aquifers, comparisons between upgradient and downgradient wells, correlations between related

parameters, any discussions of erratic and/or poorly correlated data. Groundwater contour maps will be interpreted as to groundwater flow direction and rates. The report will further evaluate the adequacy of the water quality monitoring frequency and sampling locations based upon the site conditions. The report will be signed, dated, and sealed by a P.G. or P.E.

14 Compliance with Prohibitions

Paso County operates the West Pasco County Class I Landfill. Compliance with 62-701.300 is summarized below.

14.1 General Prohibitions

14.1.1 Permit Requirements

Rule 62-701.300(1) (a) F.A.C. states, "No person shall store, process, or dispose of solid waste except at a permitted solid waste management facility or a facility exempt from permitting under this Chapter." Approval of this general permit application will provide compliance to this rule.

14.1.2 Air and Water Quality

Rule 62-701-300(1)(b) F.A.C. states, "No person shall store or dispose of solid waste in a manner or location that causes air quality standard to be violated or water quality standards or criteria of receiving waters to be violated." No air quality or water quality standards or criteria of receiving waters will be violated by the construction of Cell A4 and the operation of West Pasco Class I.

14.2 Siting Requirements

Rule 62-701 (300) (2) F.A.C states that "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of by being placed in [listed sites below]"

14.2.1 Geological Formation Support

Rule 62-701.300(2)(a) states, "no solid waste shall be stored or disposed of by being placed in an area where geological formations or other subsurface features will not provide support for the solid waste." There have been two geotechnical studies pertinent to the footprint of A-4. Reference 1, or volume IV of the 1987 Application for Power Plant Site Certification includes a comprehensive report for the 800 acre site titled Geotechnical/Hydrogeologic Study Proposed Class I Sanitary/Ash Landfill Site – Hays Road Pasco County, Florida, dated April 17, 1987 by Jammal & Associates, Inc. The selected portion of the 800 acre site to be developed for a landfill is summarized by this report. The second report is in Appendix F of the July 2008 Permit Application, titled Supplemental Geotechnical engineering Services Report for the Proposed Landfill Expansion Including Slope Stability Analysis and

Piezometer Installation and Monitoring, Pasco County, Florida. The second report was completed specifically at the location of A-4 and provides subsurface analysis for the support of the solid waste.

14.2.2 Potable Water Well Setbacks

Rule 62-701.300(2)(b) states, “no solid waste shall be stored or disposed of by being placed] within 500 feet of an existing or approved potable water well unless storage or disposal takes place at a facility for which a complete permit application was filed or which was originally permitted before the potable water well was in existence. This prohibition shall not apply to any renewal of an existing permit that does not involve lateral expansion, nor to any vertical expansion at a permitted facility.” West Pasco County Class I landfill is not sited within 500 feet of an existing or approved potable water well. Please see **Figure 4 – Water well locations within 500 feet of an existing or approved potable water well in Attachment 23** as generated from the SWFWMD GIS database.

14.2.3 Dewatered pit

Rule 62-701.300(2)(d) states, “Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of by being placed in a dewatered pit unless the pit is lined and permanent Leachate containment and special design techniques are used to ensure the integrity of the liner.” West Pasco County Class I, Cell A-4 shall be constructed above the seasonal high water level for the surficial aquifer and shall be double lined with 60 mil HDPE as listed in the specifications of Appendix K.

14.2.4 Flooding

Rule 62-701.300(2)(d) states “Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of by being placed in an area subject to frequent and periodic flooding unless flood protection measures are in place.” The location of the 100-year floodplain boundaries in relation to the site is shown in **FIRMette for, West Pasco County Class I, Cell A-4, in Attachment 24** effective as of March 15, 1984. This data was obtained from the National Flood Insurance Program, Flood Insurance Rate Map Number 12023 0050, Panel 50 of 500. The Pasco County Development Review Committee was contacted and has indicated that is no further updates to the Flood Insurance Rate Map for the concerned property available.

14.2.5 Bodies of Water

Rule 62-701.300(2)(e) states, “Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of by being placed in any natural or artificial body of water including ground water.” The facility is not located in any natural or artificial body of water or ground water.

14.2.6 Setback from Bodies of Water

Rule 62-701.300(2) (f) states, “Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of within 200 feet of any natural or artificial body of water unless storage or disposal takes place at a facility for which a complete permit application was filed or which as originally permitted before the water body was in existence. For the purpose of this paragraph, a “Body of water” includes wetlands within the jurisdiction of the Department, but does not include impoundments or conveyances which are part of an on-site permitted stormwater management system, or bodies of water contained completely within the property boundaries of the disposal site which do not discharge from the site to surface waters. A person may store or dispose of solid waste within the 200 foot setback area upon demonstration to the Department that permanent leachate control methods will result in compliance with water quality standards and criteria. However, nothing contained herein shall prohibit the Department from imposing conditions necessary to assure that solid waste stored or disposed of within the 200 foot setback area will not cause pollution from the site in contravention of Department rules.” All water bodies within the 200 feet setback of the foot print of Cell A-4 are impoundments and conveyances that are part of an on-site permitted stormwater management system, permitted by PA87-23. Please see Figure 3 of Attachment 23.

14.2.7 Rights-of-Way

Rule 62-701.300(2) (g) states, “Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of by being placed on the right-of-way of any public highway, road, or alley.” The planned build out of entire West Pasco Class I, including A-4, is not sited on any Right-of-Ways.

14.2.8 Potable Water Wells Serving a Community Water System

Rule 62-701.300(2)(h) states, "Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department permit or site certification based upon site-specific geological, design, or operational features, no solid waste shall be stored or disposed of by being placed within 1,000 feet of an existing or approved potable water well serving a community water system as defined in subsection 62-500.200(12), F.A.C., unless storage or disposal takes place at a facility for which a complete permit application was filed or which was originally permitted before the water well was in existence. It is the intent of the Department that this provision shall be replaced on the effective date of any rule promulgated by the Department which regulates wellhead protection areas generally. This prohibition shall not apply to any renewal of an existing permit that does not involve lateral expansion, nor to any vertical expansion at a permitted facility." The boundary of West Pasco Class I is not within 1,000 feet of an existing or approved potable water well as per **Figure 4 of Attachment 23**.

14.3 Burning

Rule 62-701.300(3) states, "Open burning of solid waste is prohibited except in accordance with Rule 62-701.256, F.A.C. Controlled burning of solid waste is prohibited except in a permitted incinerator, or in a facility in which the burning of solid waste is authorized by a site certification order issued under Chapter 403, Part II, F.S." West Pasco Class I, Cell A-4, does not allow open burning of solid waste. Cell A-4 shall only receive quenched ash from the on-site waste-to-energy plant. Burning is not allowed on the landfill.

14.4 Hazardous Waste

Rule 62-701.300(4) states, "No hazardous waste shall be disposed of in a solid waste management facility unless such facility is permitted pursuant to Chapter 62-730, F.A.C." No hazardous waste is accepted at West Pasco Class I. If hazardous waste is discovered, the hazardous waste is cleaned and disposed of by the hauler. If the hauler could not be identified, the County's Hazardous Waste Department shall handle the cleanup and disposal.

14.5 PCBs

Rule 62-701.300(5) states, "Disposal of liquids containing a polychlorinated biphenyl (PCB), or non-liquid PCBs in the form of contaminated soil, rags, or other debris, may be restricted or prohibited by 40 CFR Part 761. Persons managing PCBs are advised to consult the federal regulation before attempting to dispose of PCBs in any solid waste disposal unit in this state. " PCBs is prohibited at West Pasco Class I. Cell A-4 shall accept only ash. If PCB is discovered, the PCBs will be cleaned up and disposed of by

the hauler. If the hauler could not be identified, the County's Hazardous Waste Department shall arrange for the cleanup and disposal by an outside vendor.

14.6 Biomedical Waste

Rule 62-701.300(6) is the general prohibition dealing with the transportation, treatment, and disposal of biomedical waste. ~~This rule does not apply to West Pasco Class I because West Pasco Class I is neither a treatment nor disposal facility for biomedical waste.~~ No biomedical waste is disposed off in West Pasco Class I as stated in 62-701.300 (6) (a) "No biomedical waste shall be knowingly deposited in any solid waste management facility unless the facility meets the criteria of this subsection" If biomedical waste is discovered, the hauler is responsible for the clean up and disposal of the medical waste. If the hauler cannot be identified, the County's Health Department will be contacted. The Health Department shall arrange for clean up and disposal by an outside vendor.

14.7 Class I Surface Water Set back

Rule 62-701.300(7) states, "The Department shall not issue a construction permit for a landfill within 3,000 feet of Class I surface waters." West Pasco Class I is not sited within 3,000 feet of a Class I surface water as demonstrated by Figure 3-6 of Attachment 23.

14.8 Special Wastes for Landfills

Rule 62-701.300(8) pertains to prohibited wastes. "No person who knows or who should know of the nature of such solid waste shall dispose of the following waste in any landfill: (a) Lead acid batteries: (b) used oils, except as provided in Chapter 62-710, F.A.C., (c) Yard trash, except in unlined landfills classified by Department rule (d) white goods: (e) whole tires, except as provided in Chapter 62-711, F.A.C." West Pasco Class I does not accept lead acid batteries, used oils, yard trash, white goods and whole tires. Cell A-4 is an ash monofill that will only accept ash from the waste-to-energy facility.

14.9 Special Wastes for Waste-to-Energy Facilities

Rule 62-701.300(9) states "No person who knows or who should know of the nature of such solid waste shall dispose of lead-acid batteries, mercury-containing devices, or spent mercury-containing lamps in any waste-to-energy facility." The waste-to-energy facility at the Pasco County Resource Recovery Facility does not knowingly accept lead-acid batteries, mercury-containing devices, or spent mercury-containing lamps.

14.10 Liquid Restrictions

Rule 62-701.300(10) (a) states, "Noncontainerized liquid waste shall not be placed in solid waste disposal units which accept household waste or construction and demolition debris for disposal unless:

1. The waste is household waste other than septic waste; or
2. The waste is Leachate or gas condensate derived from the solid waste disposal unit, or byproducts of the treatment of such leachate or gas condensate, and the solid waste disposal unit is lined and has a leachate collection system."

Rule 62-701.300(10) (b) states, "Containers holding liquid waste shall not be placed in a solid waste disposal unit unless:

1. The container is a small container similar in size to that normally found in household waste.
2. The container is designed to hold liquids for use other than storage; or
3. The waste is household waste."

Rule 62-701.300(10)(c) states, "Containers or tanks twenty gallons or larger in capacity shall either have one end removed or cut open; or have a series of punctures around the bottom to ensure the container is empty and free of residue. The empty container or tank shall be compacted to its smallest practical volume for disposal."

No containerized or noncontainerized liquids are transported through this facility.

The rule for liquid restrictions does not apply as A-4 accepts only combusted residue from the waste-to-energy plant.

14.11 Used Oils

Rule 62-701.300 (11) (a) states "No person may mix or commingle used oil with solid waste that is to be disposed of in landfills or directly disposed of used oils in landfill" The facility does not accept used oils.

Rule 62-701.300 (11) (b) states "The Department shall allow disposal of used oil commingled with Solid waste it was determined that it is not practicable to separate the used oil from the solid waste, and if such disposal will pose no significant threat to public health or the environment." The facility does not accept used oils.

15 Airport Safety

Per 62-701.320 (13), any lateral expansion of landfill, within the five miles of a operating airport runway used by turbine power or piston engine aircraft, shall notify the FAA, FDOT and the affected airport. **Figure 5 of Attachment 23** and one airport, Pilot Country Airport of Brooksville, Florida, is within the 5 miles distance. However, A-4 is exempted from notification of the FAA, FDOT and the affected airport by rule 62-701.320 (13)(d) 5 for an ash-monofill.

16 Public Screening

The property boundary of the site is at least 600 feet away from the perimeter footprint of West Pasco Class I. Vegetative and decorative cover in from of low lying bush, trees, and walls shields the landfill from the public as stipulated in 62-701.340(4)(d).

West Pasco Class I Landfill

Operation Plan

Volume 2

Cells SW-2, A-3

Approved by Department

October 2002

Revised December 2008

Landfill Operations Plan

This Operations Plan is for the West Pasco Class I Landfill. It is an integral unit of the Pasco County Solid Waste System ("System"). The System is comprised of: a mass-burn Resource Recovery Facility (the plant), the West Pasco Class I Landfill, the West Pasco Class III Landfill and Recycling Center, the East Pasco Transfer Station and Recycling Center, and the East Pasco Class I Landfill. The West Pasco Class I Landfill and the West Pasco Class III Landfill are co-located on an 800-acre site. The entire 195-acre West Pasco Class I Landfill and the Resource Recovery Facility are permitted under the Florida Electrical Power Plant Siting Act, while the West Pasco Class III Landfill was permitted separately under Chapter 62-701, F.A.C.

The entire 800-acre site is enclosed by a chain-link or barbed wire fence to limit access. Entrance to the site is limited to two gates (one at the Class III landfill and one at the Class I facility) both of which are monitored by the County staff located in the scale houses at each entrance.

The West Pasco Class I Landfill is conceptually designed in a phased series of 14 individual disposal units (cells). Six disposal units (A-1 through A-6) are planned for ash disposal, six disposal units (SW-1 through SW-6) for Non-processible or by-pass waste, and two disposal units (future) are undesignated. The layout of the cells is shown on **Figure 1**. The disposal area covers approximately 195 acres; each cell is approximately 10 acres in size. The initial phase of construction was completed in 1991, with the construction of cells SW-1 and A-1, eastern portion of the perimeter access road, retention ponds 1 and 2, an equipment maintenance building, and other associated drainage work. Cell A-2 was constructed in 1995 and construction of Cells SW-2 and A-3 was completed in the spring of 2002. Construction of the Cell A-4, approximately a 20 acre cell, is anticipated to be completed by 2009.

Processible municipal solid waste (MSW) is combusted in the WTE Facility. The residual ash is quenched and screened to remove large materials. A magnetic separator is used to remove ferrous metals. Both the large materials and ferrous metals are sold for recycling and contribute in part to the requirements of 62-701.340(4)(d). The ash is then disposed off in the active ash cell. The by-pass waste is disposed in the active solid waste disposal (SW) unit.

Whenever processible waste is being bypassed from the Facility to the active solid waste disposal unit, the Landfill Supervisor has the staff at the scale house to direct incoming haulers to the active solid waste disposal unit. Trained spotters are assigned to the active solid waste disposal unit.

1.0 Operating Personnel Training

The Pasco County Utilities Services Branch (PCUSB), which is responsible for the operations of the landfill, has a pro-active approach to training and certifying all

landfill personnel and currently has trained operators who have satisfied the requirements of Chapter 62-701, F.A.C. Additionally, Pasco County has staff members who have been trained and are certified through or by the TREEO Solid Waste Landfill Operator Short Course and are used as trained spotters at the landfill and elsewhere in the solid waste management system. Copies of course completion certificates are kept on file. The landfill has at least one trained operator at the working face during all times when the landfill receives waste. At least one trained spotter is at each working face at all times to detect unauthorized wastes when the landfill receives waste other than ash.

2.0 Landfill Operations Plan

2.1 Designated Responsible Operating and Maintenance Personnel

The Pasco County Board of County Commissioners sets policy for the administration and management of the disposal of solid waste in the County. Bruce Kennedy, Assistant County Administrator, Utilities Services Branch, coordinates solid waste management in the County. He is assisted by John Power, Solid Waste Facilities Manager, who manages the operation and maintenance of the solid waste management facilities.

The following current schedule is typical of the staffing for the West Pasco Class I Landfill.

<u>Certified Landfill Operators</u>	<u>Six Days*</u>
First Shift Supervisor	M,T,W,Th,F
Second Shift Supervisor	T,W,Th,F,S
<u>Equipment Operator/Spotters</u>	
First Shift Operator	M,T,W,Th
Second Shift Operator	W,Th,F,S
*Landfill is closed on Sundays.	

Both of the Certified Landfill Operators and both of the Equipment Operators are qualified to substitute for the other and perform their duties. This cross training allows for a backup operator when one cannot be at the site.

2.2 Contingency Operations for Emergencies

2.2.1 Fire Emergency Procedures

In the unlikely event that an uncontrollable fire occurs at the landfill site:

- Field staff will contact scale house attendant by two-way radio and provide details;
- Scale house attendant will contact Landfill Supervisor;
- Scale house attendant will contact 911 to request fire department assistance;

- Landfill Supervisor will direct additional equipment and manpower to the scene as necessary.
- Fire hydrants are located on the side of the access road for water supply.

If the fire is controllable:

- Field staff will contact scale house attendant by two-way radio and provide details;
- Field staff will put out fire using landfill equipment and soil from an on-site stockpile;
- Scale house attendant will contact Landfill Supervisor;
- Scale house attendant will contact 911 to request fire department assistance, as necessary;
- Landfill Supervisor will inspect scene.

If necessary, solid waste will be directed to other permitted disposal facilities as appropriate.

2.2.2 Natural Disasters Procedure

If notice is available of a pending natural disaster (tornado, hurricane, etc.), the Landfill Supervisor will direct staff to:

- Check stormwater management system for any blockages at culverts, pipes, etc.;
- Check leachate management system levels, pumping units, etc.;
- Apply daily cover to working face where appropriate;
- Secure equipment where appropriate.

After the natural disaster has occurred, the Landfill Supervisor will direct staff to assess damage to and operational status of:

- Access roads;
- Stormwater management system;
- Leachate management system;
- Landfill equipment;
- All landfill cells.

The Landfill Supervisor will report findings to the Solid Waste Manager.

If the natural disaster results in an inflow of Class I waste to the facility that when combined with the normal daily waste is in excess of the system capacity, the materials can be stockpiled/ disposed of in the active Solid Waste Cells. In an emergency, the Class III landfill can be used to the extent needed for a staging area only for Class III wastes. If it is necessary to store debris outside of lined areas, FDEP authorization shall be requested.

Once the rate of waste material inflow decreases to below capacity of the WTE Plant, the waste will begin to be directed into the WTE Plant. Storage of debris is a temporary measure to the extent practicable.

2.2.3 Procedures during Equipment Failure

If equipment fails, the Landfill Supervisor will be notified so that arrangements can be made for the equipment's repair. If the downtime is expected to hinder landfill operations, the Landfill Supervisor will obtain backup equipment under established cooperative lending agreements with other solid waste management facilities or other County departments.

2.3 Controlling Types of Waste Received at Landfill

The scale house operator is the first person to visually inspect the loads of wastes that enter the facility. The scale house operator shall visually inspect every load for any prohibited waste as delineated in FAC 62-701.300. If the load is deemed acceptable, the scale house operator will then direct the loads to their proper disposal area. (One spotter is located at the working face of the receiving wastes, in order solid waste disposal unit to inspect waste being dumped at the working face). A dumpster is provided near the working face to facilitate removal of unacceptable waste.

If prohibited types of waste are observed by the spotter in any solid waste disposal area, the Landfill Supervisor will be notified and prohibited wastes will be removed.

Batteries, tires, and used oil will be removed to the Recycling Center, which has facilities for handling these prohibited wastes. Hazardous and medical wastes can be removed under existing arrangements for their proper handling and disposal. These wastes will be removed under the direction of the County Hazardous Waste Department Coordinator in compliance with the solid waste rules. The County Health Department will be contacted for biomedical wastes. Specific Procedures for the removal of prohibited waste by type is listed in **Section 13**.

As mentioned earlier, the majority of the loads are directed to the waste pit at the waste-to-energy facility. The operators of the waste-to-energy facility have at least one operator at all times to check for prohibited wastes. Prohibited wastes shall be removed as needed by the waste-to-energy operator. The waste is checked by certified spotters at WTE facility before acceptance. All prohibited wastes are handled as mentioned above and in Section 13.

2.4 Weighing Incoming Waste

No waste enters the landfill or plant without passing across the scales to be weighed. Each ash truck also crosses the scale prior to delivering their loads to the active ash cell. The Landfill Supervisor periodically monitors this activity.

2.5 Vehicle Traffic Control and Unloading

Private refuse haulers do not routinely enter the West Pasco Class I Landfill unless delivering non-processible waste or when the plant requires that waste be by-passed. During these exceptions, the Landfill Supervisor assigns additional landfill staff to control traffic and direct unloading.

2.6 Method and Sequence of Filling Waste

As noted previously the general layout of West Pasco Class I Landfill is divided into two general areas: the northern portion is for regular MSW and the southern portion is for ash monofill. The middle two cells are for future use and are undesignated and shall remain undesignated until needed.

The West Pasco Class I Landfill will be developed using disposal units as shown on **Figure 1**. Each cell is approximately 10 acres. The proposed ash cell A-4 is approximately 20 acres. 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. **Figure 2** depicts the phases and final elevation for A-3 and the filling sequence for Cells A-3 and A-2, which is also applicable for filling the solid waste disposal units (SW-2 and SW-1).

Ash will be monofilled. Solid waste and ash will not be co-disposed under routine operating conditions. For solid waste cells, berms will be constructed around the working face to contain leachate and divert stormwater (see **Figure 3A**). It is anticipated that a flexible membrane liner ("rain tarp") will be used for intermediate cover on the ash cell while common fill or a mixture of wood chips and common fill will be used for initial and intermediate cover on the solid waste cell. If a mixture of wood chips and common fill is used, a sample of the mixture shall be screened periodically, and upon request by the Department to confirm that 100% passes a 2" screen, 85% passes ¾" screen, and 70% passes a ¼" screen. The mixture shall be applied in 6" compacted layer for initial cover. This distinction should be kept in mind when reading and following the filling sequence procedures below.

A-3 and SW-2 Filling Sequence

Each cell is divided into approximately three equal areas, by two separation berms with a geomembrane flap installed during construction to facilitate stormwater/leachate segregation during the initial operation of the cells. The phase filling of each third to a certain elevation is considered a phase. The phase filling sequence for both Cell A-3 and SW-2 will begin starting from the east and move west as shown on **Figure 2** in Phases I through III. Initial filling of Phase I will start near the entrance ramp, and progress across the floor of this area until it is covered. **Figure 2** also shows Phases IV through VI, going from west to east. Leachate collection lines

penetrating the segregation berms are equipped with a tee and a temporary bladder cut-off valve, as shown on **Figure 3**.

The general filling sequence will be accomplished by filling Phase I first to an approximate elevation of 72 feet, with an approximate side-slope of 5:1. A perimeter swale/berm around the Phase I fill area will be constructed and maintained during the operation, diverting contaminated stormwater to low areas as shown on **Figure 2 Phase I**. The perimeter swale will be constructed and maintained within the filled area. The filling sequence is as follows:

Phase I

1. Flag the edge of the liner at the top of the berm, or mark with traffic cones, except common berms between the new and existing cells. Ash and solid waste will not be placed within two feet of the flagged or marked line.
2. Install temporary plug in leachate collection lines (as shown in **Figure 3**) in Phase II area, and install stormwater pumps. Clean stormwater will be pumped to the surface drainage swales.
3. Place a berm/swale around the active phase of the cell area. All waste and water in contact with waste will be contained within the bermed area. (See **Figure 2**).
4. Extend the containment berm, using local soil material, between Phases I and II to an approximate elevation of 50 at the south end and elevation 52 at the north end.
5. For Cell A-3, ash will be unloaded from the entrance ramp to the cell and spread over the two feet of protective sand cover, constructing a platform as show on **Figure 4**. A minimum of 4 feet of initial lift will be placed and rolled to cover the Phase I cell area. The ash for the initial lift will be free from large, sharp objects that may damage the liner system. For Cell SW-2, solid waste will be unloaded and spread over the two feet of protective sand cover. The waste will be inspected for large objects that shall be removed so there is no damage to the liner system. The initial lift across the entire Phase I area shall be 4 feet in depth and compacted. In the solid waste cell, the working face shall be kept to the minimum width possible.
6. Continue normal filling operation maintaining the perimeter berm/swale around the Phase I fill area. Filling the Phase I area will be accomplished by constructing approximately 10-foot lifts, working in a general direction from south to north, and from west to east as shown on **Figure 4**.
7. As the filling operation progresses, construct an access road (from ash in Cell A-3 and common fill in Cell SW-2) to the south of the Phase I area as shown in **Figure 2**, and provide drainage berm/swales on both sides of the access road and around the perimeter of Phase I area, as shown on **Figure 2**.
8. Continue the operation until the approximate specified elevations, shown on **Figure 2**, are reached.

9. When filled to specified grade, in Cell A-3, place rain tarp as intermediate cover on Phase I area, excluding the access road. In Cell SW-2 use 12 inches of compacted common fill for intermediate cover, or common fill mixed with wood chips to a depth of 12 inches.
10. Once the rain tarp for A-3 or the intermediate cover for SW-2 is in place, construct a 10 to 15 foot wide spillway for stormwater to exit the Phase I area. This spillway will be constructed by creating an opening in the containment berm, filling and grading the perimeter swale/berm with clean fill. Place the rain tarp (**Figure 5**) or cement bag rip rap (**Figure 6**) down the slope to the elevation of the stormwater swale located at the toe of the cell berm. The rain tarp will be secured using waste tires ties with ropes or sand cement riprap bags along both sides of the spillway. The rain tarp will be sandwiched between two bags: one row on each side of the spillway down the slope.

Phase II

1. Install temporary pneumatic plug in leachate collection lines in Phase III area (see **Figure 3**), and relocate the stormwater pumps from the Phase II and Phase III areas.
2. Remove temporary plugs from the leachate collection lines in Phase II area (see **Figure 3**).
3. Extend perimeter berm/swale around the active phase of the cell area. All waste and water in contact with waste will be contained within the bermed area (see **Figure 2**).
4. Extend the separation berm between Phases II and III to an elevation of 50 at the south end, and an elevation of 51 at the north end, using local fill material.



Rain Tarp Spillway - Figure 5



Cemented Bag Spillway - Figure 6

5. Begin the filling operation in the Phase II area in a similar manner as in Phase I, using procedures 5 through 10.

Phase III

1. Remove temporary plug from leachate collection pipes in Phase III area (see Figure 3).

2. Extend perimeter berm/swale around the active phase of the cell area. All waste and water in contact with waste will be contained within the bermed area (see **Figure 2**).
3. Begin filling operation in the Phase III area in a similar manner to Phase I, using procedures 5 through 8.

Phase IV

1. Remove rain tarp from side slope of A-2 and SW-1 within the Phase IV area only.
2. Remove stormwater interceptor control in Phase III (see **Figure 7 and Note 2**).
3. Install 2 feet of sand protective cover on the side slope in 5 to 10 foot increments going up the slope just ahead of the fill progression.
4. Extend the separation berm (approximately 2 feet) up the slope to the top of Cell A-2/SW-1 berms as appropriate to provide leachate/stormwater separation.
5. Extend the temporary access road to the west of Phase IV area, as shown on **Figure 2 Phase IV**.
6. Begin filling the Phase IV valley area from west to east. Fill the area by constructing approximately 10 foot lifts working in the general direction from south to north and towards the east. Continue the filling operation until approximate elevation of 72 is reached matching the maximum elevation of fill in Phase III.
7. Remove rain tarp on west side of Phase II and continue the filling operation until elevation of approximately 86 is reached, as shown in **Figure 2**.
8. Place rain tarp/intermediate cover on the sides of Phase III/IV area, as described in Items 9 and 10 for Phase I.

Phase V

1. Remove rain tarps from Phase II and adjoining side slope areas of A-2 and SW-1.
2. Remove stormwater interceptor control in Phase II area (see **Figure 7 and Note 2**).
3. Install 2 feet of sand protective cover on the side slope in 5 to 10 foot increments going up the slope just ahead of the fill progression.
4. Extend the separation berm (approximately 2 feet) up the slope to the top of Cell A-2/SW-1 berms as appropriate to provide leachate/stormwater separation.
5. Construct a temporary access road on west side of Phase II leading up to the Phase V area. Remove the extended and temporary access road from the west and south side of the Phase III area as shown on **Figure 2**. Then fill the existing 5:1 side slopes to a 3:1 side slope as shown in **Figure 2**.
6. Begin filling the Phase V valley area from west to east. Fill the area by constructing approximately 10 foot lifts working in the general direction from south to north and towards the east. Continue the filling operation until approximate elevation of 72 is reached matching the maximum elevation of fill in Phase III.

7. Remove rain tarp on west side of Phase I and continue the filling Phase V operation until elevation of approximately 95 is reached, as shown in **Figure 2**.
8. Place rain tarp/intermediate cover on the sides of Phase II/V area, as described in Items 9 and 10 for Phase I.

Phase VI

1. Remove rain tarps from Phase I and adjoining side slope areas to be filled.
2. Remove stormwater interceptor control in Phase I area (see Figure 7 and Note 2).
3. Repeat the general procedures described in Items 3 through 8 for Phase V. Ultimately, the access road at the south side of Cells A-3 and SW-2 will be closed after the side slopes are filled to 3:1. The only access to the fill area would be the final access road for Phase VI from the east side of Cell A-3 shown in **Figure 2**. It is anticipated that the filling operation, up to this point, would take more than five years, therefore, an updated plan of operations will be developed before that time for the continued filling of Cells A-1, A-2 and A-3 and SW-1 and SW-2.

2.7 Waste Compaction and Application of Cover

In the solid waste disposal unit, sufficient cover material (soil or shredded waste tires) will be stockpiled near the working face to provide an adequate supply for at least one week of operation. No daily cover is required in the ash monofill disposal units. The solid waste is to be placed at the bottom of the working face, and spread in two-foot layers. This procedure will be repeated until the interim elevation desired is achieved. Each two-foot layer of solid waste will be compacted with a minimum of three to five passes of a compactor. The ash will be spread and compacted as necessary by a front-end loader or bulldozer.

Application of initial, intermediate, and final cover is to be performed as required per Chapter 62-701, F.A.C. Six inches of initial cover will be applied to the working face of the solid waste disposal unit at the end of each day during which solid waste was placed in the disposal unit. The ash monofill cell will not require initial cover. Intermediate cover will be applied within seven days of disposal unit completion if final cover or an additional lift is not to be applied within 180 days. Top areas with intermediate cover will be seeded or sodded to avoid slope erosion and sloped at least two percent to allow stormwater to drain off and be removed from the disposal unit. As an alternate, ash monofills will be covered by a 20- mil geomembrane secured in place by tires.

The initial, intermediate and final slope on top of landfill areas will be a minimum of two percent and will not exceed four percent. The perimeter sides of all completed disposal units will have a slope no greater than 3:1 to minimize erosion. Final cover material will be applied to the landfill once the final grades are reached in accordance with an approved closure plan.

2.8 Operations of Gas, Leachate, and Stormwater Control

Since the site closure plan will include a low permeability top cap, the gas venting system in the solid waste disposal units will be installed when the disposal units are closed. Gas vents will not be installed in the ash monofill disposal units. The detail of this gas vent will be provided to FDEP for review and approval prior to closure. The vents will provide an escape route for landfill gas so as to prevent lateral migration of the gas.

The leachate collection and transmission system consists of gravity drains, sumps, manholes, pump station, and isolation valves for each of the disposal units. The normal operation is by gravity, draining through a metering manhole to one of two leachate pump stations. One pump station serves all solid waste cells while the other serves all ash cells A1, A2, A3. When the leachate reaches a pre-determined level, leachate is automatically pumped to the treatment/disposal facility. Leachate from the solid waste cells is pumped to the Pasco County Shady Hills Sub regional Wastewater Treatment Plant. Leachate from the ash cells is pumped to the on-site Leachate Storage Tank.

The stormwater controls are operated to collect and convey runoff to surface-water management areas for sedimentation control. Surface-water management facilities e.g. drains, culverts, and ditches are maintained by removal of sediments as needed. Surface-water control devices, such as weirs and culverts, are checked and cleaned to assure proper performance after each major storm event and once per week.

All water coming into contact with solid waste is intercepted and contained by berms, and handled as leachate. Only stormwater that has not contacted ash or solid waste may be discharged to the surface-water management system.

2.9 Water Quality Monitoring

The Pasco County Environmental Laboratory or other approved laboratory, if necessary, will perform the water quality monitoring. The current approved water quality-monitoring plan for the facility shall meet the requirements of Chapter 62-701.510, F.A.C. for each disposal unit.

If any of the groundwater monitoring wells are damaged or found to be damaged, they will be reported immediately to the Landfill Supervisor who will note the occurrence in his daily operational log. The Landfill Supervisor will also notify the Solid Waste Manager of the damage. The Department will also be notified in accordance with Conditions of Certification Section II. New well construction details will be provided to the FDEP Solid Waste Section for review and approval prior to the construction.

2.10 Start and End of Work Week Procedures

At the end of the workweek, prior to shut down, the Landfill Supervisor will direct staff to:

- Check stormwater management system for any blockages at culverts, pipes, etc.;
- Check leachate management system levels (i.e. pump station/manhole leachate levels, leachate storage tank levels), pumping units for operation, etc.
- Secure equipment.

At the beginning of the work week, immediately after opening, the Landfill Supervisor will direct staff to observe the conditions of and record deficiencies of:

- Access roads;
- Stormwater management system;
- Leachate management system;
- Landfill equipment;
- Disposal units.

Particular attention will be paid when observing the levels in the leachate pump stations, the disposal units, and the leachate storage tank. The pumps should be observed during an on cycle to insure that the pumps are in good working condition.

3.0 Operating Record

The Operating Record will consist of all records, reports, analytical results, demonstrations, and notifications described by Chapter 62-701.500 (3), F.A.C., including permits, site certification, engineering drawings, and supporting information, and the landfill operator training verification of 62-701.320 (15). The record is considered part of the operation plan and shall be kept on-site at the office of the Solid Waste Manager. Duplicate records are also kept at the Pasco County Government Center Utilities Services Branch office located in New Port Richey.

The Operating Record will be available during business hours for inspection by Department personnel.

4.0 Waste Records

All solid waste will be weighed as it is received at the weighing facilities located at the entrance to the site. The amount of solid waste received by the type of waste will be quantified according to the thirteen waste types as listed under Chapter 62-701.500(4)(b), F.A.C. Additionally, all ash residues transported from the plant to the West Pasco Class I Landfill will be weighed at the same weighing facilities. All solid waste weights will be recorded in tons per day. Waste reports will be completed monthly, and copies will be provided quarterly to the Department in accordance with 62-701.500(4)(a), F.A.C.

5.0 Access Control

To prevent unauthorized access to the 800-acre site in West Pasco, the entire site is enclosed by chain-link fencing topped with two strands of barb-wire. Access to the site is through one of two gates each of which is controlled by county staff located in a scale house.

Entrance gates at the Class I Landfill and the West Pasco Class III Landfill are chain link and are closed and secured during non-working hours. The entrance gate from the Class III Landfill to the Class I Landfill is internal.

The Landfill Supervisor will check or have checked the integrity of the perimeter fencing on a monthly basis. The Landfill Operators will secure the entrance gates at the end of the operating day. The Landfill Supervisor will ensure that the existing signs indicating the hours of operation and types of waste accepted are maintained.

Wastes are accepted only when scale house attendants are present during operating hours.

6.0 Monitoring of Waste

In the event that waste is being directed to an active solid waste unit, the Landfill Supervisor will establish random examination of solid waste deliveries at least three times per week. The assigned spotters will examine each load of solid waste to detect and prevent unauthorized waste disposal. If the landfill supervisor or other trained personnel determines the detected unauthorized waste to be hazardous waste, the area where the wastes are deposited will be cordoned off from public access until proper clean-up, transportation to, and/or disposal at a permitted hazardous management facility has been assured. The landfill supervisor will promptly notify the Department of the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The random examination described above is in addition to the routine spotting of incoming waste.

If unauthorized wastes are detected, the spotter will notify the Landfill Supervisor who will contact the generator, hauler, or other party responsible for shipping the waste to the County facility. The Landfill Supervisor will attempt to determine the identity of the waste sources and facilitate its removal, proper disposal, and correct handling in the future. An individual procedure for disposal of specific prohibited waste is listed in **Section 13**.

The information and observations resulting from each random inspection will be recorded in writing and retained at the site for at least three years. The recorded information will include the following:

- Date and time of inspection;
- Name of the hauling firm or vehicle owner;
- Driver of the vehicle;

- Vehicle license plate number;
- Source of waste;
- Observations made;
- Name and signature of the inspector.

7.0 Procedures for Spreading and Compacting Waste

7.1 Waste Layer Thickness, Compaction, and Mining

All solid waste accepted for disposal will be spread in layers approximately two feet in thickness and compacted to as thin a layer as practical, depending on the type of waste received, before the next layer is applied. Ash residue will require only one or two passes with the heavy equipment. By-pass waste will require three to five passes with the heavy equipment. Because the waste in the Solid Waste Disposal Unit may be removed, compaction requirements may be less than would be for a solid waste unit used for disposal only at a municipal landfill. By-pass waste designated for removal (mining) will require only one to three passes with heavy equipment and will be segregated in an area with active leachate collection and covered with waste tire chips. By-pass waste may be removed to no closer than four feet above the protective soil layer within 180 days or relocated for disposal and compacted in two-foot layers as required.

7.2 Special Considerations for First Layer of Waste Placed in a Disposal Unit

The first layer of waste will be selected to be free of large rigid objects that may damage the liner or leachate collection system. Large objects, typically pieces of metals or wooden stumps that exceed 5 inch square, will be removed from the ash prior to disposal. The thickness of the first layer will be at least five feet of compacted waste for each solid waste disposal unit. A trained operator will conduct placement of the first layer. Two feet of sand layer will be placed during the cell construction so as to protect the geomembrane liner system. No vehicles will be permitted to travel directly upon the liner system.

7.3 Construction of Lifts

Solid waste will be placed in lifts. The working face and side grades above land surface shall be at a slope not greater than three feet horizontal to one-foot vertical rise. Lift thickness should not exceed 10 feet.

7.4 Working Face Width

The working face will be only wide enough to accommodate vehicles dumping waste. Under normal operating conditions, the working face will be between 50 feet and 100 feet. During periods when the volume of by-pass waste is high, the size of the working face in the solid waste cell will be greater to accommodate the increased traffic.

7.5 Initial Cover

Initial cover will be applied to solid waste in order to minimize any adverse environmental, safety, or health effects such as those resulting from birds, blowing litter, odors, disease vectors or fires. Initial cover will not be necessary for the ash monofill disposal units. However, a temporary rain tarp will be used as discussed in Section 2.6.

Initial cover of the solid waste disposal units will be applied at the end of each working day. The initial cover will be six inches compacted in thickness unless a tarp is used.

7.6 Intermediate Cover

Intermediate cover, in addition to six-inch initial cover in the solid waste cells, will be applied and maintained within seven days if additional solid waste will not be deposited within 180 days. The intermediate cover will be graded to provide a surface slope and will either be seeded or sodded with grass. The ash cell disposal units may be covered with a 20-mil geomembrane, i.e. rain tarp, to promote runoff and minimize infiltration. A 50-foot grid of tires will secure the rain tarp. When disposal activity resumes in the disposal unit, the intermediate cover will be pushed aside within the disposal unit and stockpiled within the active disposal unit for use as initial cover for the resumed disposal activity.

7.7 Closure Schedule, Closure Plan, Final Cover & Long Term Care Plan

One year prior to the projected date when waste will no longer be accepted, the department will be provided with a written notice with a schedule for cessation of waste acceptance and closure of the landfill.

All users shall be notified of the intent to close the Landfill by posting signs at both of the entrances at least 120 days prior to cessation of waste acceptance. The sign will have the date of closing, location of alternative disposal facility and the name of the person responsible for closing the landfill. If such notice cannot be provided 120 days prior due to unforeseen circumstances, the notice shall be provided as soon as the need to close the facility becomes apparent.

At least 90 days before the date when waste will no longer be accepted, a closure plan, consistent with the requirements of Rule 62-701.600(3), F.A.C. shall be provided.

At least 10 days prior to the cessation of waste acceptance date, a legal advertisement of closure shall be circulated among the affected population by means of newspaper. The Department will be provided with proof of publication within seven day of publication.

Closure procedures shall be in accordance with Chapter 62-701, 610, F.A.C. Closure procedure shall include the following:

- Closing inspections and approval by the FDEP as required in the closure permit,
- Installation of survey monuments,
- Preparation of a final survey report,
- Certification of closure construction completion,
- Consultation with FDEP before conducting activities at the closed landfill.

Once the solid waste disposal units have been filled to the final grades, final cover will be applied in accordance with an approved closure plan. The top of the landfill area will be convex with an outward slope of two to four percent from the center. The side will be completed with slopes not exceeding 3:1. Areas with final cover will be seeded or sodded with grass.

Long-term care will be provided for the landfill pursuant to Chapter 62-701.620. At this time, the Owner anticipates that the proposed final use of the closed landfill will be open field within the 800 Acre Solid Waste Resource Recovery Facility. The final use for the landfill site will exclude any buildings or other structures, unless such buildings are structures specifically designed to address gas venting and settlement considerations associated with construction over a landfill. Long term care for the site will include maintaining the landscaping, and erosion control for a period of thirty (30) years and maintaining the groundwater monitoring plan for a period of time established by the Department.

West Pasco Class I shall continue to monitor and maintain the facility in accordance with the approved closure plan for 30 years from the closing date. The surface water management system, gas control system, slopes, final cover, embankments, fences, gates, signs, and vegetative cover will be maintained during the long-term care period. The leachate collection, transmission, and disposal system will be operated during the long-term care period. At a minimum, monthly inspection of the closed landfill facilities will be conducted. Pasco County shall maintain the right of access to the site to carry out long-term care requirement. Additional inspections will be conducted following major rainfall events. If a monitoring well or other device required by the plan is destroyed or fails to operate properly, FDEP shall be notified in writing and replace the device within 60 days. Any lease or transfer of the property shall include specific conditions required by Chapter 62-701.620(7), F.A.C.

The Owner of the landfill at the time may apply to the Department for a permit modification to reduce the long term care schedule after a 10-year history after closure in accordance with FAC 62-701.620(3).

The Owner currently poses a right of access to the subject site. The future owner or operator will maintain this right of access route and the property for the life of the landfill and throughout the long term care period of the landfill.

Following completion of the long-term care period, FDEP shall be notified with a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

The above closure schedule, plan and long-term care is applicable to the final build out of the entire 195-acre landfill. Grades of the final build out is included in the Feb 1987 drawing set - Power Plant Siting Act Application, Volume IV.

7.8 Scavenging Policy

With the exception of mining operations identified in section 7.1, scavenging shall not be permitted. The Landfill Supervisor may allow controlled salvaging for recycling purposes.

7.9 Litter Policing Methods

Litter control of the 800 acre property is in the combined responsibility of Pasco County Personnel and the waste-to-energy facility contracted operator.

Litter generated within the landfill site is expected to be minimal. In the event the litter becomes an issue, the Landfill Supervisor will initiate the following litter control methods:

- Require delivery vehicles remain covered until entry into the active disposal unit;
- Routine clean-up around disposal unit and access roads within 24 hours;
- Maintain small working face and effective initial cover only for solid waste cells.

7.10 Erosion Control Procedures

Grass vegetative cover will be established and maintained on all landfill berm outer slopes, stormwater retention pond outer slopes, and along interior access roads. The Landfill Supervisor or his designee will conduct once a week inspections (twice per week during the wet seasons) and immediately after heavy storms to detect any emerging erosion. Landfill staff will promptly repair detected erosion. The County shall notify the FDEP of any erosion problem expected to not be corrected within 7 days and provide a schedule for its repair.

8.0 Operational Procedures for Leachate Management

8.1 Leachate Level Monitoring, Sampling, Analyses, and Data Results Submitted to the Department

The leachate sampling and analysis will be performed semi-annually by the Pasco County Environmental Laboratory as described in the Water Quality Monitoring Plan. The results will be reported to the Department.

8.2 Operations and Maintenance of Leachate Collection and Removal System, and Treatment as Required

The Landfill Supervisor will daily review the leachate collection and removal system data to insure that the head over the liner is maintained below 12 inches and that generation rates measured in the secondary leachate collection system are not excessive, i.e., above 100 gallons per acre per day. If exceedance is detected of more than 100 gallons per acre per day, the Solid Waste Manager will be notified so the exceedances can be addressed promptly and the Department be notified of corrective actions.

8.3 Procedures for Managing Leachate if it Becomes Regulated as a Hazardous Waste

Pasco County will comply with the State and Federal rules if the leachate is classified as hazardous waste.

8.4 Agreements for Off-Site Discharge and Treatment of Leachate

Pasco County has an agreement to transport and dispose of ash cell leachate at the City of Tampa WWTP. The County is permitted to pump or haul leachate generated from solid waste cells to the Shady Hills WWTP.

8.5 Contingency Plan for Managing Leachate during Emergencies or Equipment Problems

Solid Waste Cells

If equipment problems occur (such as pump failure) so that leachate cannot be removed from the leachate pump station, the Landfill Supervisor will be notified immediately, so that arrangements can be made for equipment repair or replacement. If problems occur with the leachate transmission pipeline or with the WWTP, the Landfill Supervisor will be notified so that arrangements can be made to correct the problem and, if necessary, to transport leachate by tanker truck to the Shady Hills WWTP or the Hudson WWTP.

Ash Disposal Units

If equipment problems occur (such as pump failure) so that leachate cannot be removed from the leachate pump station, the Solid Waste Manager will be notified immediately so that arrangements can be made for equipment repair or replacement. If problems occur with the leachate transmission pipeline, the Landfill Supervisor will be notified so that arrangements can be made to correct the problem and, if necessary, to transport leachate by tanker truck to approved disposal sites identified in Section 8.4.

8.6 Procedures for Recording Quantities of Leachate Generated in Gallon/Day

The Landfill Supervisor will direct staff to daily record the leachate levels measured in the Leachate Storage tank. Flow meter readings from each individual disposal cells for the primary and secondary liner system will be recorded daily. These flows will be totaled for the solid waste cells, which go to the Shady Hills WWTP, and for the ash cells, which go to the on-site leachate storage tank. These data will be retained on-site as part of operation record and submitted to FDEP on a quarterly basis.

8.7 Procedures for Comparing Precipitation Experienced at the Landfill with Leachate Generation Rates

The Landfill Supervisor will direct staff to daily check and record rainfall collected in an on-site rain gauge. The data will be recorded along with the leachate generation data. Leachate generation rates for each disposal unit will be measured and the amount of rainfall will be recorded. Leachate level monitoring will be recorded automatically, 24 hours a day, by American Sigma flow meters located at each leachate collection and leak detection manholes. A copy of the recorded data will be reported to the Department on a quarterly basis.

8.8 Maintaining and Cleaning the Leachate Collection System

New leachate collection systems shall be pressure cleaned or inspected by video recording after construction but prior to initial placement of wastes. The existing leachate collection system shall be water pressure cleaned or inspected by video recording at the time of permit renewal. Since this facility is permitted under the Power Plant Siting Act, and the permit for the facility is not renewed per se, leachate system cleaning or video inspections shall be performed every five years. Results of the collection system cleanings or inspections shall be made available to the Department.

9.0 Routine Gas Monitoring Program for the Landfill

Gas monitoring will be initiated after the burial of waste in any solid waste disposal unit in compliance with 62-701.536. An approved landfill gas monitoring plan shall remain in place for the Class I solid waste cells. No gas monitoring will be conducted relative to the ash monofill disposal units.

10.0 Procedures for Operating and Maintaining the Landfill Stormwater Management

Surface water is prevented from entering the waste-filled area through a network of berms and drainage ditches. A large swale is located along the interior side of the access road. The swale is designed to receive runoff from the pre-developed and any closed-out areas of the landfill and direct it to one of the major retention basins.

The Landfill Supervisor will routinely inspect the stormwater management system. Particular attention will be given to inspecting the culverts under the access road for any blockage. The stormwater management system will also be inspected prior to a natural disaster if sufficient notice is available, and after any natural disaster (see Sections 2.2.2 and 2.8).

11.0 Equipment and Operation Features

11.1 Sufficient Equipment for Excavating, Spreading, Compacting, and Covering Waste

The West Pasco Class I Landfill has been operating since 1990. Existing equipment has proved sufficient. The equipment available at the West Pasco Landfill is as follows:

Compactor	2
Bulldozer	2
Front-end loaders	1
Off road truck	1
Dump truck	1

11.2 Reserve Equipment or Arrangements to Obtain Additional Equipment within 24 Hours of Breakdown

Reserve equipment is available from the County's Public Works Division. All equipment on the list, with the exception of the compactor, is available from Public Works on a temporary basis. Additionally, the County provides for the replacement of equipment through a replacement account funded monthly during the expected life of the equipment.

11.3 Communication Equipment

Communication between personnel in the West Pasco Landfill Maintenance Building, Scalehouse, the West Pasco Class III Scalehouse, and landfill staff operating equipment is maintained by two-way radios and the master communication system maintained for all County departments. Additionally, landfill staff can contact each other by two-way radios. Telephones are available on site.

11.4 Personnel Shelter and Sanitary Facilities, First Aid Equipment

The West Pasco Landfill Maintenance Building provides the nearest shelter to the West Pasco Class I Landfill staff. The building includes office space, restrooms, and showers as well as two equipment/vehicle bays. Basic first aid is available at the maintenance building and all vehicles on site have first-aid kits.

11.5 Dust Control Methods

The access road is paved. Unpaved, interior roads will be wetted down with water using a spray truck on an as-needed basis. Heavy equipment is enclosed and air-

conditioned. Dust masks, goggles, and hard hats are available to personnel working in excessively dusty areas.

11.6 Fire Protection

Fire extinguishers are provided on all heavy equipment operating in the wastefill areas. Staff is directed to contact the Fire Department as discussed under Section 2.2.1 Fire Emergency Procedures.

11.7 Litter Control

Private refuse haulers are not allowed in the West Pasco Class I Landfill except when non-processible or by-pass wastes are being delivered to the solid waste disposal unit. During these exceptions, the landfill supervisor will require loads be covered, working face be kept to a minimum, cover applied efficiently, and routine clean up of litter. Litter will be collected daily on operating days.

11.8 Signage

Signage indicating operating authority, traffic flow, hours of operation, and disposal restrictions are provided at the entrances to the site and the West Pasco Class III Landfill and Recycling Center. The landfill supervisor will ensure the signage is maintained.

11.9 Access Road

All roads providing access to the landfill disposal units are paved with asphalt or concrete. The roads include access roads from the site, the West Pasco Class III Landfill and Recycling Center, a perimeter road, and entrance ramps to the constructed disposal units. The Landfill Supervisor will insure that the access roads are maintained. Access roads are provided to all monitoring wells and other monitoring devices.

12.0 Additional Recordkeeping and Reporting Requirements

12.1 Permits and Plans

Records and construction plans used for developing new disposal units and other supplemental information will be maintained for the design period of the landfill in the Utilities Services Branch files.

12.2 Monitoring and Maintenance Records

Background water quality records will be maintained for the design period of the landfill in the Utilities Services Branch files. All other monitoring information including calibration and maintenance records, chart recordings for continuous monitoring instrumentation, and other records required by the permit shall be retained for a ten-year period. These records will be maintained by the Utilities Service Branch. Records, which are more than five years old and required to be

retained may be archived, if they can be retrieved by the landfill operator for inspection within seven days.

12.3 Estimate of Remaining Landfill Life

The Solid Waste Manager will submit annually to the Department estimates of remaining capacity of the constructed and unconstructed, waste disposal units. Estimates will be maintained in the Utilities Services Branch files.

12.4 Hydrological Report

A technical report, prepared, signed, and sealed by a P.G. or P.E. with experience in hydrogeologic investigations, will be submitted to the Department every two years. The report will summarize and interpret the water quality data and water level measurements collected during the previous two years.

The report will also include tabular and graphical displays of any parameters detected and water level hydrographs for all monitoring wells. The report will further show trends and comparisons between zones or aquifers, comparisons between upgradient and downgradient wells, correlations between related parameters, any discussions of erratic and/or poorly correlated data. Groundwater contour maps will be interpreted as to groundwater flow direction and rates. The report will further evaluate the adequacy of the water quality monitoring frequency and sampling locations based upon the site conditions. The report will be signed, dated, and sealed by a P.G. or P.E.

13 Compliance with Prohibitions

Paso County operates the West Pasco County Class I Landfill. Compliance with 62-701.300 is summarized below.

13.1 General Prohibitions

13.1.1 Permit Requirements

Rule 62-701.300(1) (a) F.A.C. states, "No person shall store, process, or dispose of solid waste except at a permitted solid waste management facility or a facility exempt from permitting under this Chapter." Approval of this general permit application will provide compliance to this rule.

13.1.2 Air and Water Quality

Rule 62-701-300(1)(b) F.A.C. states, "No person shall store or dispose of solid waste in a manner or location that causes air quality standard to be violated or water quality standards or criteria of receiving waters to be violated." No air quality or water quality standards or criteria of receiving waters will be violated by the operation of West Pasco Class I.

13.2 Siting Requirements

West Pasco Class I Landfill will comply with the Rule 62-701 (300) (2) F.A.C.

13.3 Burning

Rule 62-701.300(3) states, "Open burning of solid waste is prohibited except in accordance with Rule 62-701.256, F.A.C. Controlled burning of solid waste is prohibited except in a permitted incinerator, or in a facility in which the burning of solid waste is authorized by a site certification order issued under Chapter 403, Part II, F.S." West Pasco Class I Landfill does not allow open burning of solid waste. Burning is not allowed on the landfill.

13.4 Hazardous Waste

Rule 62-701.300(4) states, "No hazardous waste shall be disposed of in a solid waste management facility unless such facility is permitted pursuant to Chapter 62-730, F.A.C." No hazardous waste is accepted at West Pasco Class I. If hazardous waste is discovered, the hazardous waste is cleaned and disposed of by the hauler. If the hauler could not be identified, the County's Hazardous Waste Department shall handle the cleanup and disposal.

13.5 PCBs

Rule 62-701.300(5) states, "Disposal of liquids containing a polychlorinated biphenyl (PCB), or non-liquid PCBs in the form of contaminated soil, rags, or other debris, may be restricted or prohibited by 40 CFR Part 761. Persons managing PCBs are advised to consult the federal regulation before attempting to dispose of PCBs in any solid waste disposal unit in this state. "PCBs are prohibited at West Pasco Class I. If PCB is discovered, the PCBs will be cleaned up and disposed of by the hauler. If the hauler could not be identified, the County's Hazardous Waste Department shall arrange for the cleanup and disposal by an outside vendor.

13.6 Biomedical Waste

Rule 62-701.300(6) is the general prohibition dealing with the transportation, treatment, and disposal of biomedical waste. No biomedical waste is disposed off in West Pasco Class I as stated in 62-701.300 (6) (a) "No biomedical waste shall be knowingly deposited in any solid waste management facility unless the facility meets the criteria of this subsection" If biomedical waste is discovered, the hauler is responsible for the clean up and disposal of the medical waste. If the hauler cannot be identified, the County's Health Department will be contacted. The Health Department shall arrange for clean up and disposal by an outside vendor.

13.7 Class I Surface Water Set back

Rule 62-701.300(7) states, "The Department shall not issue a construction permit for a landfill within 3,000 feet of Class I surface waters." West Pasco Class I is not sited within 3,000 feet of a Class I surface water.

13.8 Special Wastes for Landfills

Rule 62-701.300(8) pertains to prohibited wastes. "No person who knows or who should know of the nature of such solid waste shall dispose of the following waste in any landfill: (a) Lead acid batteries: (b) used oils, except as provided in Chapter 62-

710., F.A.C., (c) Yard trash, except in unlined landfills classified by Department rule (d) white goods: (e) whole tires, except as provided in Chapter 62-711, F.A.C." West Pasco Class I does not accept lead acid batteries, used oils, yard trash, white goods and whole tires.

13.9 Special Wastes for Waste-to-Energy Facilities

Rule 62-701.300(9) states "No person who knows or who should know of the nature of such solid waste shall dispose of lead-acid batteries, mercury-containing devices, or spent mercury-containing lamps in any waste-to-energy facility." The waste-to-energy facility at the Pasco County Resource Recovery Facility does not knowingly accept lead-acid batteries, mercury-containing devices, or spent mercury-containing lamps.

13.10 Liquid Restrictions

Rule 62-701.300(10) (a) states, "Noncontainerized liquid waste shall not be placed in solid waste disposal units which accept household waste or construction and demolition debris for disposal unless:

1. The waste is household waste other than septic waste; or
2. The waste is Leachate or gas condensate derived from the solid waste disposal unit, or byproducts of the treatment of such leachate or gas condensate, and the solid waste disposal unit is lined and has a leachate collection system."

Rule 62-701.300(10) (b) states, "Containers holding liquid waste shall not be placed in a solid waste disposal unit unless:

1. The container is a small container similar in size to that normally found in household waste.
2. The container is designed to hold liquids for use other than storage; or
3. The waste is household waste."

Rule 62-701.300(10)(c) states, "Containers or tanks twenty gallons or larger in capacity shall either have one end removed or cut open; or have a series of punctures around the bottom to ensure the container is empty and free of residue. The empty container or tank shall be compacted to its smallest practical volume for disposal."

No containerized or noncontainerized liquids are transported through this facility.

The West Pasco Class I Landfill will comply with the rule 62-701.300 (10) (a) for the liquid restrictions.

13.11 Used Oils

Rule 62-701.300 (11) (a) states "No person may mix or commingle used oil with solid waste that is to be disposed of in landfills or directly disposed of used oils in landfill" The facility does not accept used oils.

Rule 62-701.300 (11) (b) states "The Department shall allow disposal of used oil commingled with Solid waste it was determined that it is not practicable to separate the used oil from the solid waste, and if such disposal will pose no significant threat to public health or the environment." The facility does not accept used oils.

Figures

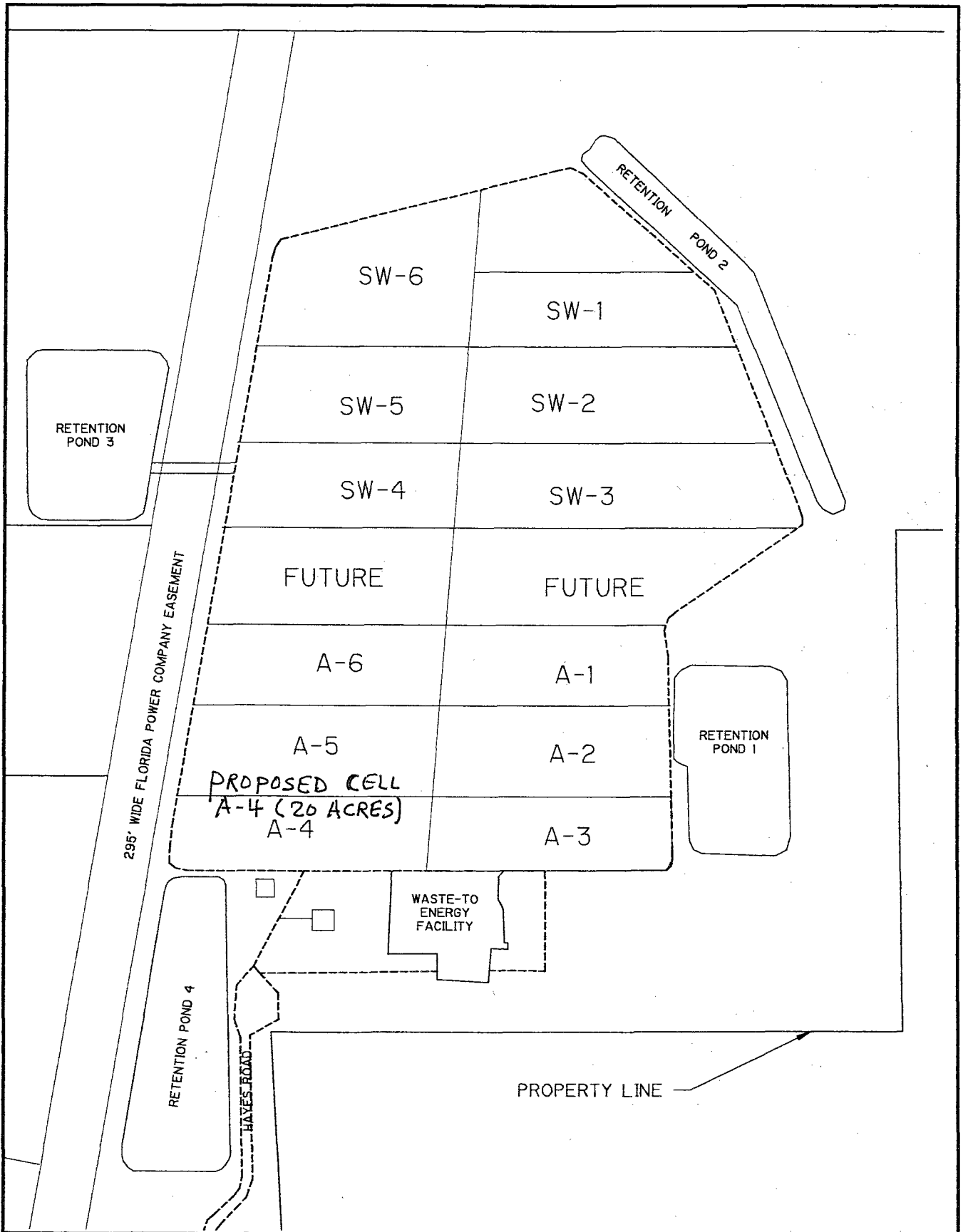
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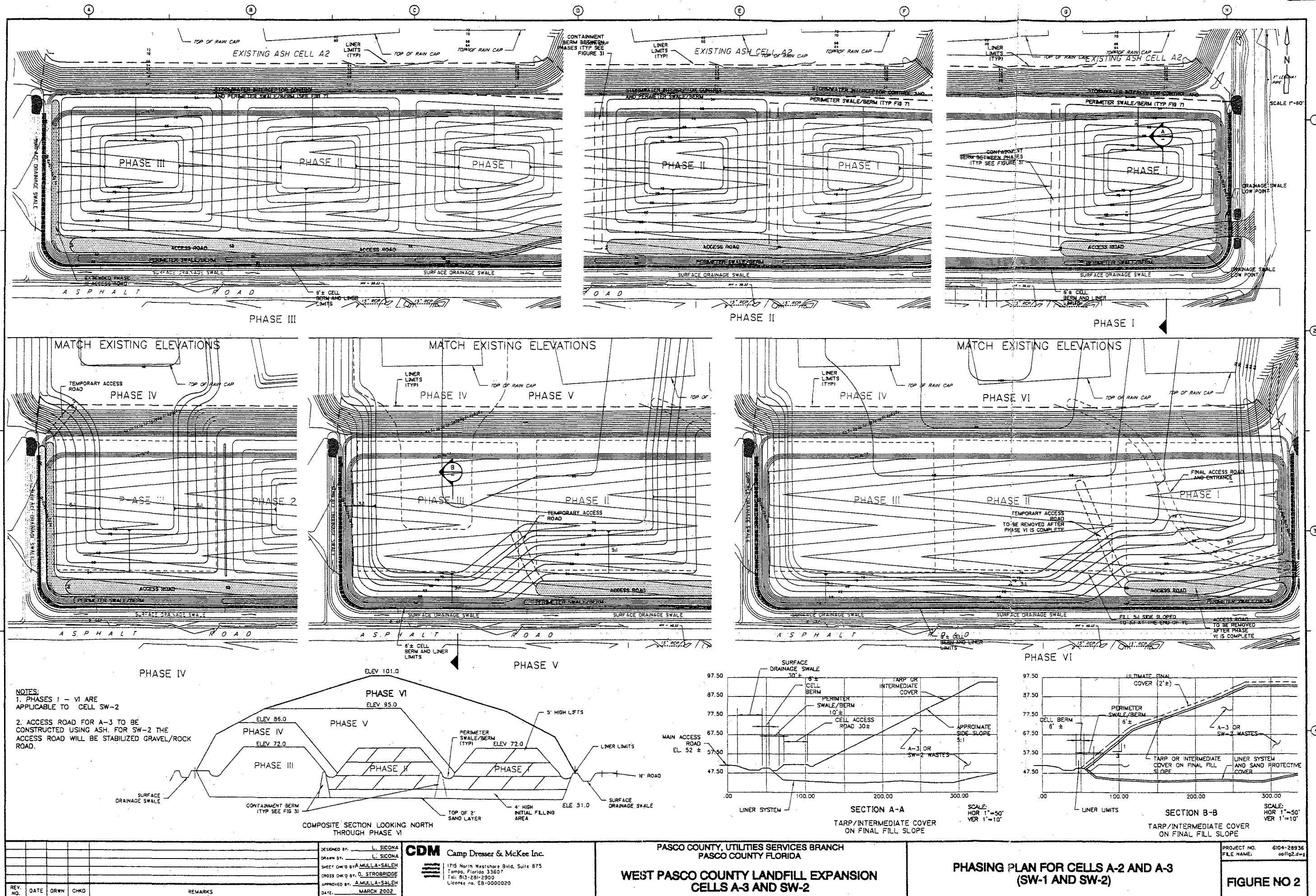
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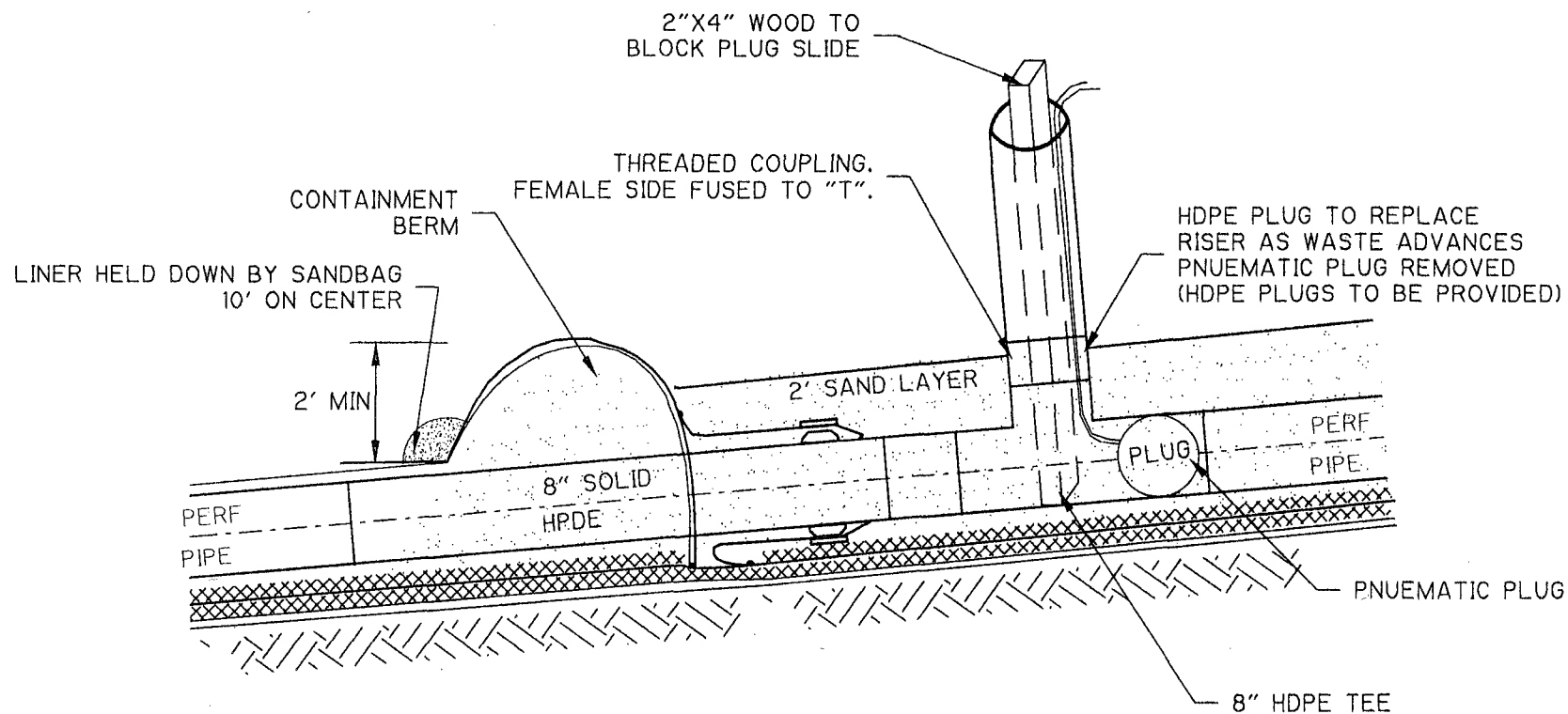
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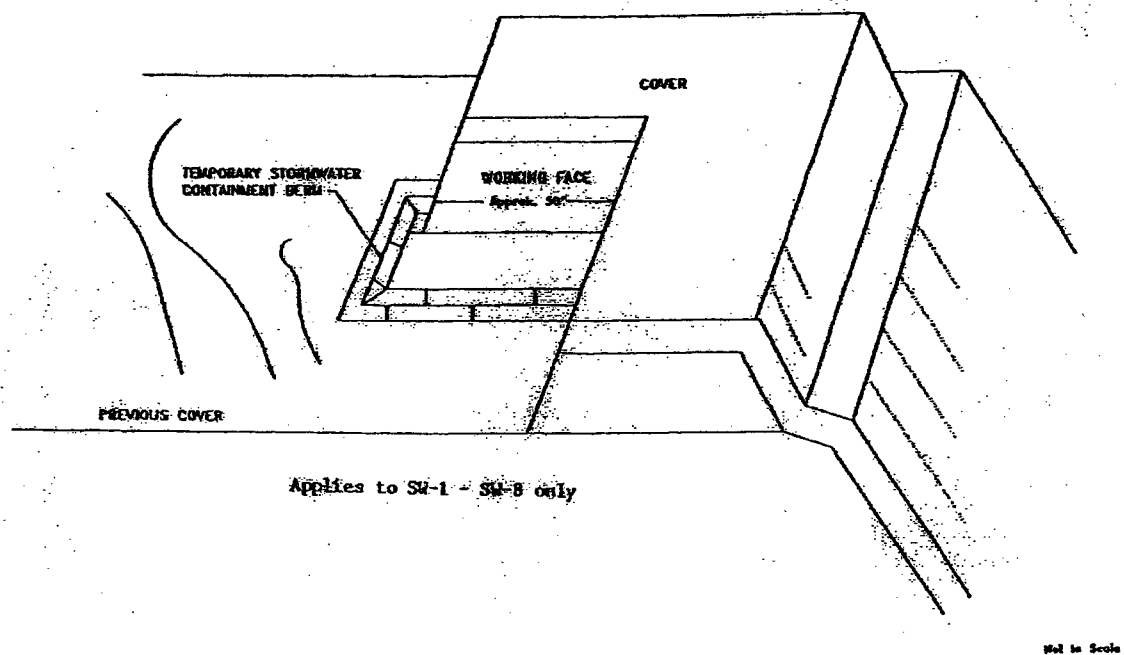
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TEMPORARY PIPE PLUG AT CONTAINMENT BERM
BETWEEN PHASES



Not to Scale

seconds

7:46:45

07/24/02 09:57:41

fig4

L:\6104\28936\100p\ops\

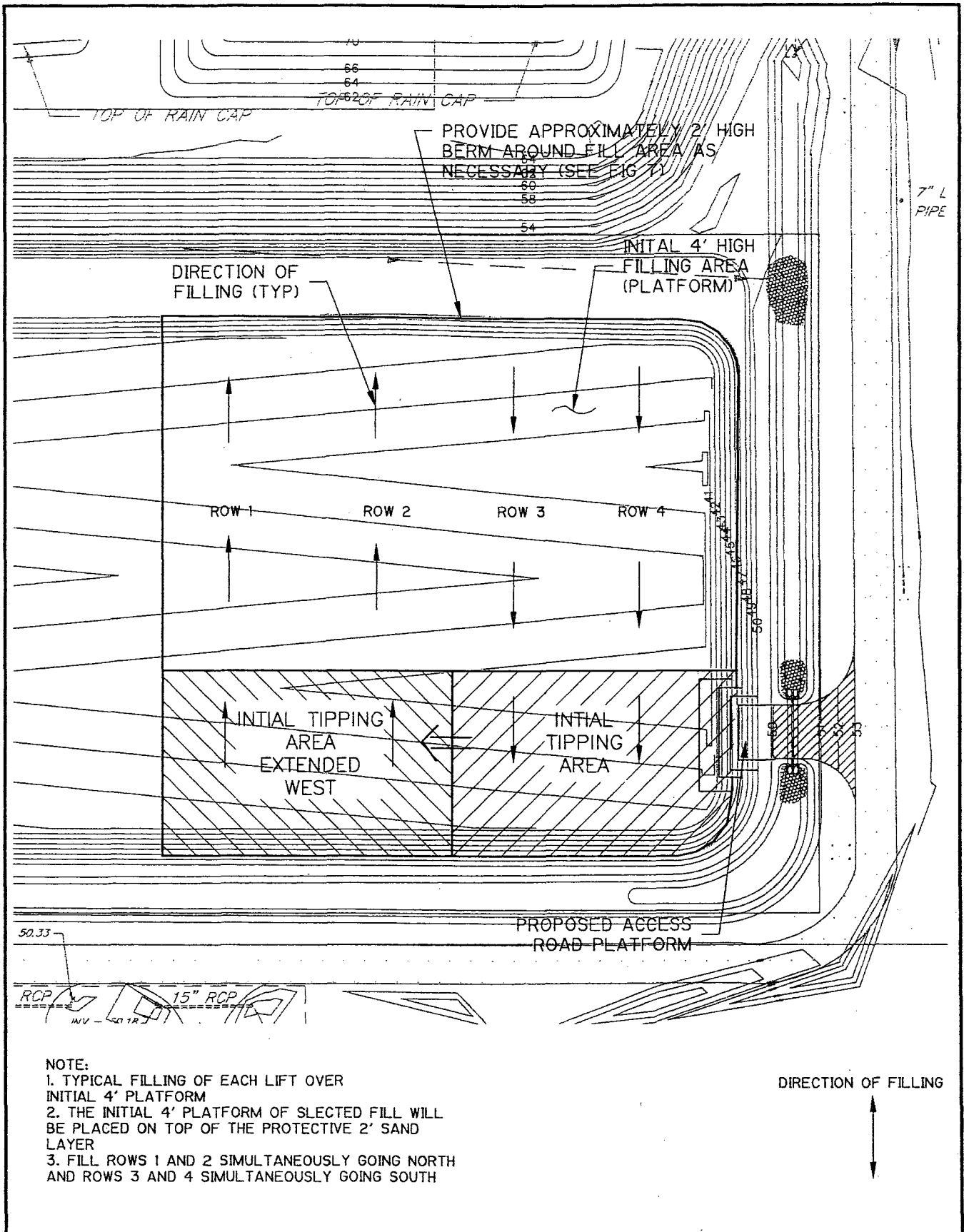


Figure No. 4
Typical Filling Sequence

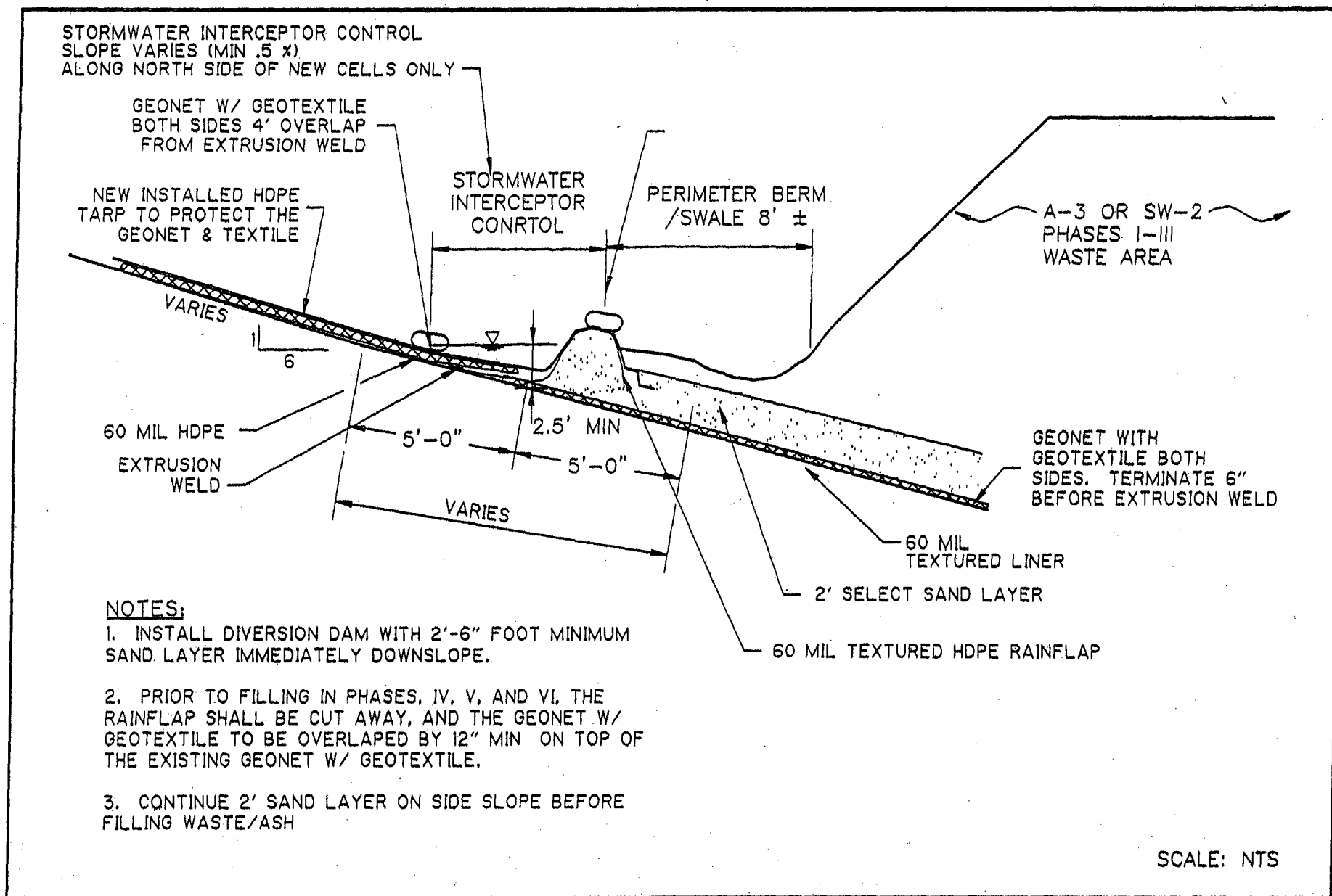


Figure No. 7
Stormwater Interceptor Control