# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

**PERMITTEE**
Pasco County Board of
County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

**PERMIT/CERTIFICATION**
WACS Facility ID No: SWD/51/45920
Permit No: 26255-001-SO
Date of Issue: **04/19/2002**
Expiration Date: **04/19/2007**
County: Pasco
Lat/Long: 28°22'22"N
82°34'06"W
Sec/Town/Rge: 25 & 26/24S/17E
Project: West Pasco
Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 20 acres), referred to as the West Pasco Class III Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste, located at 14606 Hays Road, 3 miles north of County Road 52, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of:

1. Class III Landfill Disposal Facility

Replaces Permit No.: SO51-267334

**General Information:**
**Maximum Elevation = MSL +79 feet**
**Disposal Acreage: 14.0 acres; Closed: 0.0 acres; Open: 7.0 acres**
**Bottom Liner: Single, 60 mil HDPE**
**Leachate Collection System: Primary LCRS piping**

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.



*Printed on recycled paper.*

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

(a) A description of and cause of noncompliance; and

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

**GENERAL CONDITIONS:**

10. The permittee agrees to comply with changes in Department rules and Florida Statues after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

(a) Determination of Best Available Control Technology (BACT)

(b) Determination of Prevention of Significant Deterioration (PSD)

(c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)

(d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

GENERAL CONDITIONS:

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class III landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-520, 62-522 and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of the Class III landfill and related facilities in accordance with the reports, plans and other information as follows:

- Household Hazardous Waste Facility Operation and Contingency Plans by Pasco County received on May 22, 1995;
- Permit/Construction Drawings and Record Drawings by CDM received on July 7, 1995;
- Permit Renewal Application received February 22, 2001;
- Responses and supporting information by CDM received July 18, and October 4, 2001;
- Landfill Operations Plan by CDM received November 1, 2001;
- Responses and supporting information by CDM received December 27, 2001;
- Replacement page and revised Figure No. 1 (for the Landfill Operations Plan) by CDM received March 25, 2002;

and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate or unless otherwise approved in writing by the Department. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

4. **Permit Renewal.** No later than **one hundred and eighty (180) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(2). Operation permit renewal shall include but not be limited to an updated Operations Plan and Site Plans for sequence of filling with cross-sections of lifts.

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated by the activities at this facility.

SPECIFIC CONDITIONS:

6. **Special Wastes.** The design, operation, and monitoring of disposal or control 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.

- White goods or other discarded materials that are held for the purposes of recycling shall be held no longer than ninety (90) days unless covered, and shall be stored in a manner so as to prevent the discharge of CFCs (such as freon) and other residuals (such as gasoline, oil, and antifreeze) which may cause air or groundwater pollution. Surface water shall be diverted away from all storage or holding areas.

- All solid wastes, recovered materials or residues handled at the site shall be stored 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.

- Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months. Compliance with the conditions of the Yard Trash Processing Facility Registration, (#051-01-YT) or its successor, shall be maintained.

- The household hazardous waste collection/storage facility shall be operated in accordance with the Operating Plan and Contingency Plan by Pasco County submitted on May 22, 1995.

- White goods, contaminated soils, waste tires, and yard trash shall not be disposed of in the lined Class III Landfill.

7. **Landfill Operation Requirements.** The permittee shall operate this facility in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the Landfill Operations Plan for Class III Landfill.

8. **Operating Personnel.** As required by F.A.C. 62-701.500(1), at least one trained operator shall be at the landfill at all times when the landfill receives waste. At least one trained spotter shall be at each working face when waste is received. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request. The permittee shall notify the Department in writing of a change of the primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Copies of the training certificates for the newly assigned individual shall also be submitted.

SPECIFIC CONDITIONS:

9. **Operation Plan and Operating Record.** The landfill shall have an operational plan which meets the requirements of F.A.C. 62-701.500(2). A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. The Department shall be notified of changes to the operational plan. The plan shall be updated as operations change and for renewal of this permit. An 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.

10. **Method and Sequence of Filling.** The method and sequence of filling shall be in accordance with the Landfill Operations Plan for Class III Landfill.

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

b. Waste shall not be placed within 5 feet of the inside top edge of the bottom liner.

c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner system at any time.

11. **Waste Records.** Waste quantity records shall be compiled monthly as described by F.A.C. 62-701.500(4), maintained on-site, and made available to the Department upon request.

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

13. **Monitoring of Waste.** Wastes shall be monitored as required by F.A.C. 62-701.500(6), including a load checking program and associated activities. The permittee shall not accept hazardous waste or any hazardous substance for disposal at this site. Hazardous waste is a waste identified in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule.

14. **Waste Handling Requirements.** All solid waste disposed of in the Class III area shall be handled as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class III area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each work week.

SPECIFIC CONDITIONS:

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). 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.

15. **Working Face.** As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area. **Interceptor berms shall be maintained around the active working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

16. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of 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.

17. **Leachate Management.** Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8), and the Landfill Operations Plan.

a. Each pump station shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and repaired, and a replacement pump installed if required for continued compliance.

b. Leachate generation reports shall be compiled monthly and submitted to the Department **quarterly**, or more frequently if requested, **by January 15th, April 15th, July 15th and October 15th each year.** Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch. Leachate discharge to areas outside of the geomembrane liner is a violation of Department rules.

SPECIFIC CONDITIONS:

c. No later than **one hundred and eighty (180) days prior to permit expiration,** the entire leachate collection and removal system shall be water pressure cleaned or visually or video inspected where practical to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.530, and the Landfill Operations Plan.

a. Landfill gas shall be monitored as described in Section 9 of the Landfill Operations Plan to demonstrate compliance with the criteria established in Rule 62.701.530(1)(a), F.A.C. (25% of the lower explosive limit (LEL) in on-site and off-site structures) and in Rule 62-701.530(1)(b), F.A.C. (100% of the LEL at the property boundary).

b. The results of **quarterly** monitoring required by Rule 62-701.530(2)(c), F.A.C., shall be submitted to the Department by the following dates:

| Measured During | Report Submitted By |
|---|---|
| Quarter 1 | April 15th of each year |
| Quarter 2 | July 15th of each year |
| Quarter 3 | October 15th of each year |
| Quarter 4 | January 15th of each year |

19. **Gas Monitoring Locations.** The gas monitoring locations described in Section 9 of the Landfill Operations Plan shall be sampled at least **quarterly** for concentrations of combustible gases that shall be determined as a percentage of the Lower Explosive Limit (LEL) and shall be calibrated to methane, as described in Rule 62-701.530(2),.F.A.C. Gas monitoring shall be conducted at the following locations:

| Monitoring Point | Locations Description: |
|---|---|
| Well 2MW-7 | See Figure 1 (attached) |
| Well 2MW-8 | ⇩ |
| Well 2MW-10 | ⇩ |
| Class III Scale House/Operator's Office | ⇩ |

Combustible gas sampling at the monitor wells shall be conducted in the headspace of the wells without purging the gas before collecting the sample, as described in Rule 62-701.530(2)(b), F.A.C.

SPECIFIC CONDITIONS:

20. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL in structures or 100% of the LEL at the property boundary, the permittee 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.

21. **Stormwater System Management.** Stormwater shall be managed as required by F.A.C. 62-701.400(9) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Conveyances not performing adequately shall be repaired within three (3) working days. Documentation of all inspections and repairs shall be kept on file at the facility.

22. **Recordkeeping.** Records shall be maintained as required by F.A.C. 62-701.500(13). An annual estimate of the remaining life and landfill capacity, as required by 62-701.500(13)(c), shall be maintained and submitted to the Department **annually, by April 15th of each year,** along with the most recent topographic survey or field measurements (not more than 1 year old) and supporting calculations, signed and sealed by a professional engineer.

23. **Waste Burning.** Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.300(3). Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with F.A.C. 62-296.401. Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

24. **Closure Permit Requirements.** No later than **one hundred eighty (180) days** prior to the date when wastes will no longer be accepted for active portions of the landfill, the landfill owner or operator shall submit a closure permit application to the Department in order to assure conformance with all applicable Department rules.

25. **Financial Assurance.** The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. 62-701.630.

a. All costs for closure and long-term care shall be adjusted and submitted **annually, by September 1 each year,** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

SPECIFIC CONDITIONS:

b. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this facility. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. Mosquitoes and rodents shall be controlled as so to protect the public health and welfare.

27. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, and repair and maintenance of leachate collection and removal systems. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems (including damaged or dry monitoring wells), the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

28. **Water Quality Monitoring Quality Assurance.**

a. All field work and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted in accordance with the Standard Operating Procedures (SOPs) referenced in Chapter 62-160, F.A.C., or in accordance with a Quality Assurance Plan (QAP) approved by the Department. The SOPs and QAP utilized must specifically address the types of sampling and analytical work that are required by the permit and shall be implemented by all persons performing sample collection or analysis related to this permit.

b. The field testing, sample collection and preservation, and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, or by A.S.T.M., or EPA methods shall be used.

SPECIFIC CONDITIONS:

29. **Zone of Discharge.**

a. The zone of discharge for this site shall extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the surficial aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the minimum criteria listed in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the landfill.

30. **Leachate Sampling.** Grab samples of leachate shall be collected from Tank No. 1 (WACS Testsite ID No. 2507) and Tank No. 2 (WACS Testsite ID No. 2508) to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C., as follow:

a. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Specific conductivity | Total ammonia - N |
| pH | Bicarbonate |
| Dissolved oxygen | Chlorides |
| Colors & sheens (by observation) | Iron |
| | Mercury |
| | Nitrate |
| | Sodium |
| | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix II |

b. If the annual leachate analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis of the parameters listed in Specific Condition No. 30.a., and shall notify the Department in writing. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS:**

31. **Groundwater Monitoring Well Locations.** The ground water monitoring plan is described in the submittal entitled *Groundwater Monitoring Plan Evaluation for West Pasco Class III Landfill*, prepared by Camp Dresser & McKee, Inc., dated February 2001 (revised July 2001, October 2001, and December 2001). The monitor well locations shown on attached Figure 1 are described as follows:

| Well No. | WACS Testsite ID Number | Aquifer | Designation | Location See Figure 1 |
|---|---|---|---|---|
| 2MW3A | 19671 | Surficial | Background | ⇩ |
| 4MW3A | 19670 | Floridan | Background | ⇩ |
| 2MW7 | 2343 | Surficial | Detection | ⇩ |
| 4MW7 | 2340 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW8 | 2344 | Surficial | Detection | ⇩ |
| 4MW8 | 2341 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW9 | 2345 | Surficial | Detection | ⇩ |
| 4MW9 | 2342 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW10 | 2346 | Surficial | Detection | ⇩ |

All wells are to be clearly labeled and easily visible at all times. The permittee should keep all wells locked to minimize unauthorized access.

32. **Groundwater Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with Class G-II ground water standards referenced in Chapter 62-520, F.A.C. Compliance with ground water standards shall be based on analysis of unfiltered samples.

a. Ground water levels shall be measured for all sampling events described in Specific Condition No. 32.b., at all wells listed in Specific Condition No. 31, and shall be measured at a precision of plus or minus 0.01 foot. Ground water surface contour maps prepared for each sampling event shall include ground water elevations (feet NGVD) calculated for each well.

b. Each well listed in Specific Condition No. 31 shall be sampled **semi-annually** for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Static water levels before purging | Total ammonia - N |
| Specific conductivity | Chlorides |
| pH | Iron |
| Dissolved oxygen | Mercury |
| Temperature | Nitrate |
| Turbidity | Sodium |
| Colors & sheens (by observation) | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix I |

SPECIFIC CONDITIONS:

33. **Groundwater Monitoring Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells, or as stated below:

a. Prior to construction of all new or replacement wells the permittee shall request and receive Department approval of a minor permit modification.

b. Construction details (record drawings) for all new or replacement wells shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (attached).

c. **Within one week of well completion** and development, each new or replacement well shall be sampled for the parameters listed in Rules 62-701.510(8)(a) and 62-701.510(8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

34. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Southwest District Office, Solid Waste Section for approval.

35. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or that exceed the Department's water quality standards or criteria in the detection wells, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring, prevention measures and corrective action as described in Rule 62-701.510(7), F.A.C.

SPECIFIC CONDITIONS:

36. **Water Quality and Leachate Reporting Requirements.** All leachate and ground water quality monitoring results shall be reported on Department Form 62-522.900(2), Groundwater Monitoring Report (attached). The permittee shall submit to the Department the results of the annual leachate quality analysis by **January 15th of each year.** The permittee shall submit to the Department the results of ground water quality analysis **January 15th and July 15th of each year** for the semi-annual periods July-December and January-June, respectively. The reports that transmit the results of ground water analysis shall contain the information listed in Rule 62-701.510(9)(a), F.A.C., including a ground water contour map representing conditions at the time of ground water sampling and a summary of any water quality standards or criteria that are exceeded. The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

37. **Water Quality Monitoring Plan Evaluation. By March 15, 2004 and no later than September 15, 2006,** the permittee shall submit an evaluation of the water quality monitoring data. The periods of time to be covered by the evaluations are summarized below:

| Water Quality Monitoring Data Evaluation Due Date | Starting Sampling Event | Ending Sampling Event |
|---|---|---|
| **March 15, 2004** | First Half 2001 | Second Half 2003 |
| **September 15, 2006** | First Half 2004 | First Half 2006 |

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of ground water contamination. Any ground water contamination that may be reported shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C.

38. **Air Requirements.**

a. An air construction permit is not required for the landfill unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

SPECIFIC CONDITIONS:

b. An air operating permit is not required unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is collocated or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity, as defined at 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and contact requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill location.

c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and CC, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to be Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.

39. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications or modifications and 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.

40. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

41. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

SPECIFIC CONDITIONS:

42. **Regulations.** F.A.C. 62-701, effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing any part of this permitted operation are revised, the permittee shall comply with the new rules and request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Deborah A. Getzoff
Director of District Management
Southwest District

Attachment 1

| SPECIFIC CONDITION | SUBMITTAL DUE DATE | REQUIRED ITEM |
|---|---|---|
| 4. | 60 days prior to permit expiration | Permit Renewal Application |
| 17.b. and 18. | Quarterly, by January 15th, April 15th, July 15th, and October 15th | Leachate generation reports, Gas monitoring results |
| 24. | 90 days prior to date of final waste acceptance | Closure Permit Application |
| 25. | Annually, by September 1st | Financial assurance cost estimates |
| 30. | Annually | Leachate sampled/analyzed |
| 32.b. | Every 6 months | Groundwater wells sampled/ analyzed |
| 36. | Semi-annually, by January 15th, and July 15th | Groundwater quality monitoring results |
| 36. | Annually, by January 15th | Leachate monitoring results |
| 37. | March 15, 2004 and September 15, 2006 | Evaluation of water quality monitoring plan |

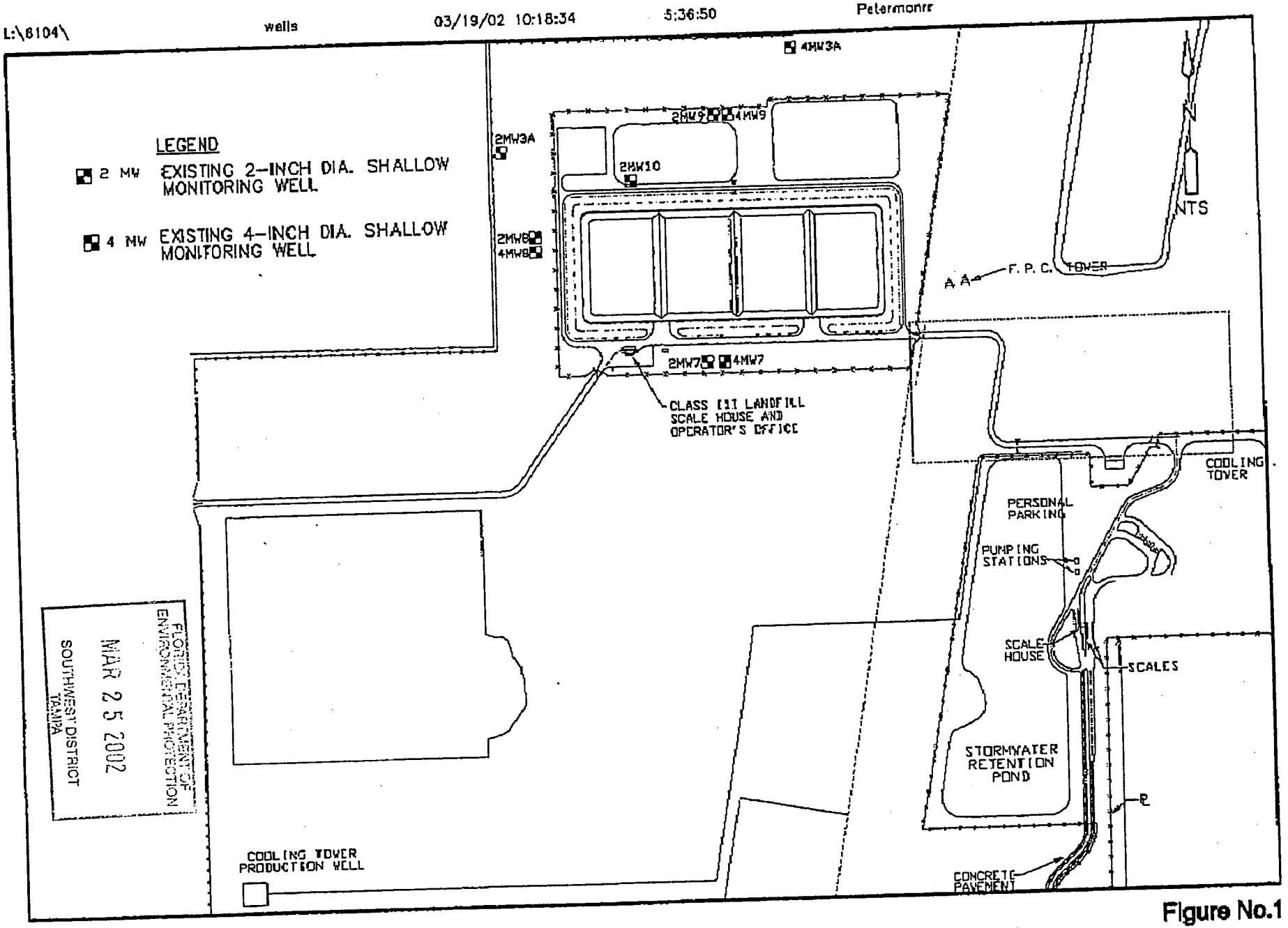



**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**



MAR-25-02 01:55PM FROM-Camp Dres & McKee Inc. 8132888787 T-841 P.003/003 F-924

DEP Form # 62-522.900(2)

Form Title Ground Water Monitoring Report

Effective Date _____

DEP Application No. _____

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

# GROUND WATER MONITORING REPORT

## Rule 62-522.600(11)

PART I GENERAL INFORMATION

(1) Facility Name _____

Address _____

City _____ Zip _____

Telephone Number (___) _____

(2) The GMS Identification Number _____

(3) DEP Permit Number _____

(4) Authorized Representative Name _____

Address _____

City _____ Zip _____

Telephone Number (___) _____

(5) Type of Discharge _____

(6) Method of Discharge _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Date: _____ _____

Signature of Owner or Authorized Representative

PART II QUALITY ASSURANCE REQUIREMENTS

Sample Organization Comp QAP # _____

Analytical Lab Comp QAP # /HRS Certification # _____

*Comp QAP # /HRS Certification # _____

Lab Name _____

Address _____

Phone Number (___) _____

PART III ANALYTICAL RESULTS

Facility GMS #:_____ Sampling Date/Time: _____

Test Site ID #: _____ Report Period: _____
(year/quarter)

Well Name: _____ Well Purged (Y/N):_____

Classification of Ground Water:_____ Well Type: ( ) Background
( ) Intermediate
( ) Compliance
( ) Other

Ground Water Elevation (NGVD): _____

or (MSL):_____

| Storet Code | Parameter Monitored | Sampling Method | Field Filtered Y/N | Analysis Method | Analysis Date/Time | * Analysis Results/Units | Detection Limits/Units |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

* Attach Laboratory Reports

DEP Form # 62-522.900(3)

Form Title MONITOR WELL COMPLETION REPORT

Effective Date _____

DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

# MONITOR WELL COMPLETION REPORT

DATE: _____

INSTALLATION NAME: _____

DEP PERMIT NUMBER: _____ GMS NUMBER: _____

WELL NUMBER: _____ WELL NAME: _____

DESIGNATION: Background _____ Immediate _____ Compliance _____

LATITUDE/LONGITUDE: _____

AQUIFER MONITORED: _____

INSTALLATION METHOD: _____

INSTALLED BY: _____

TOTAL DEPTH: _____ (bls) DEPTH OF SCREEN: _____ (bls)

SCREEN LENGTH: _____ SCREEN SLOT SIZE: _____ SCREEN TYPE: _____

CASING DIAMETER: _____ CASING TYPE: _____

LENGTH OF CASING: _____ FILTER PACK MATERIAL: _____

TOP OF CASING ELEVATION (MSL): _____

GROUND SURFACE ELEVATION (MSL): _____

COMPLETION DATE: _____

DESCRIBE WELL DEVELOPMENT: _____

_____

_____

POST DEVELOPMENT WATER LEVER ELEVATION (MSL): _____

DATE AND TIME MEASURED: _____

REMARKS: (soils information, stratigraphy, etc.): _____

_____

_____

REPORT PREPARED BY: _____
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface

Jeb Bush
Governor

# Department of Environmental Protection

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

NOTICE OF PERMIT

April 19, 2002

Pasco County
Board of County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

Dear Mr. Power:

Enclosed is a Permit Number **26255-001-SO**, issued pursuant to Section(s) 403.087(1), Florida Statues.

A person whose substantial interests are affected by the Department's proposed agency action may file a timely petition for an administrative hearing under sections 120.569 and 120.57 of the Florida Statutes, or may choose to pursue mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth below.

A person may pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the applicant, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by ) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

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

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

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

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

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

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

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

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

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

The petition for an administrative hearing must conform to the requirements of Chapters 62-110 and 28-106, F.A.C., and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, 32399-3000, within fourteen (14) days of receipt of this notice. Failure to file a petition within fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-110, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit or Permit Modification) is final, any party to the Department has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab
Attachment

cc: Jason Gorrie, P.E., CDM
Robert Butera, P.E., FDEP Tampa
Susan Pelz, P.E., FDEP Tampa (permit notebook)
Richard Tedder, P.E., FDEP Tallahassee

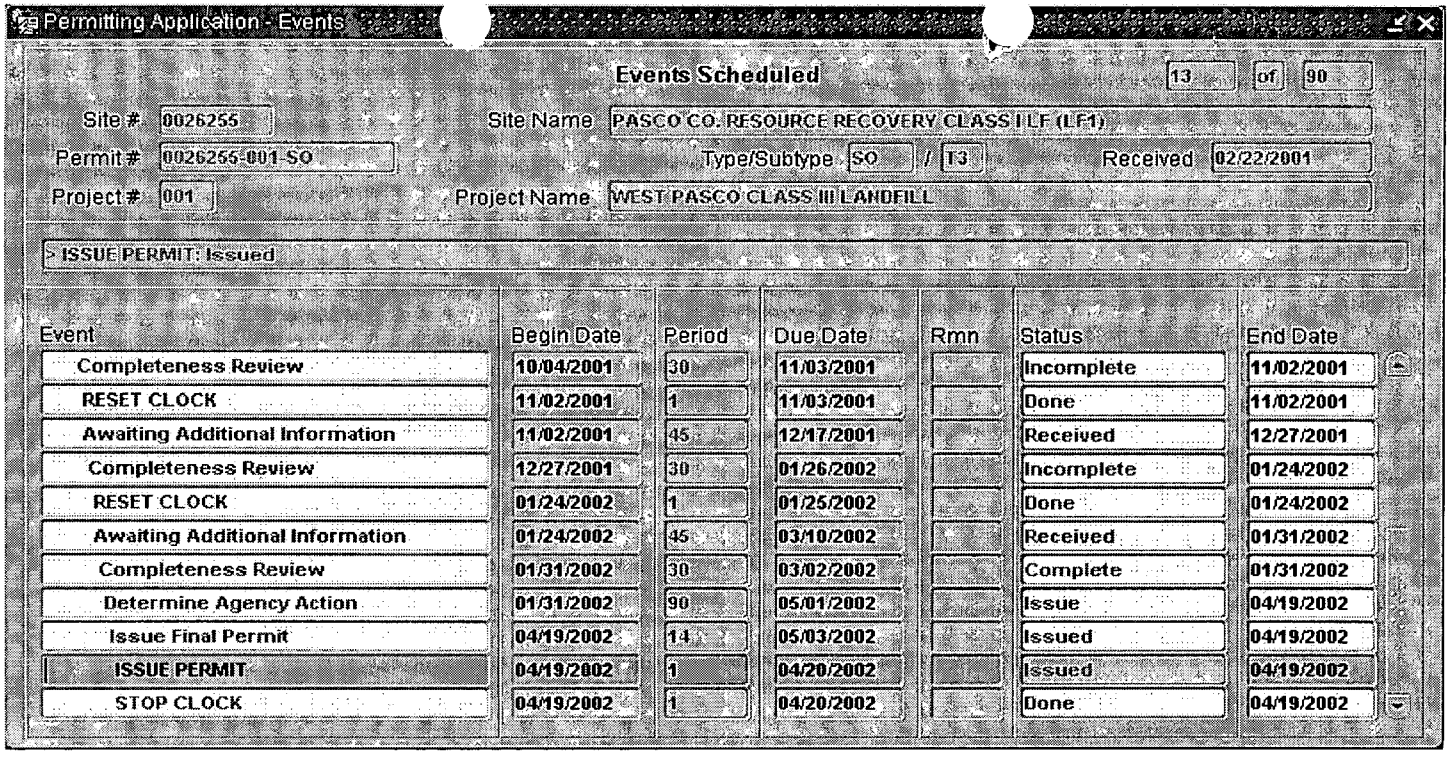
**CERTIFICATE OF SERVICE**

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on April 19, 2002 to the listed persons.

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

4-19-2002
Date


Permitting Application - Events
Events Scheduled
13 of 90
Site # 0026255
Site Name PASCO CO. RESOURCE RECOVERY CLASS I LF (LF1)
Permit # 0026255-001 SO
Type/Subtype SO / T3
Received 02/22/2001
Project # 001
Project Name WEST PASCO CLASS III LANDFILL
> ISSUE PERMIT: Issued
Event
Begin Date
Period
Due Date
Rmn
Status
End Date
Completeness Review 10/04/2001 30 11/03/2001 Incomplete 11/02/2001
RESET CLOCK 11/02/2001 1 11/03/2001 Done 11/02/2001
Awaiting Additional Information 11/02/2001 45 12/17/2001 Received 12/27/2001
Completeness Review 12/27/2001 30 01/26/2002 Incomplete 01/24/2002
RESET CLOCK 01/24/2002 1 01/25/2002 Done 01/24/2002
Awaiting Additional Information 01/24/2002 45 03/10/2002 Received 01/31/2002
Completeness Review 01/31/2002 30 03/02/2002 Complete 01/31/2002
Determine Agency Action 01/31/2002 90 05/01/2002 Issue 04/19/2002
Issue Final Permit 04/19/2002 14 05/03/2002 Issued 04/19/2002
ISSUE PERMIT 04/19/2002 1 04/20/2002 Issued 04/19/2002
STOP CLOCK 04/19/2002 1 04/20/2002 Done 04/19/2002

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

FEB 2 2 2001

SOUTHWEST DISTRICT
TAMPA

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FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

FEB 2 2 2001

SOUTHWEST DISTRICT
TAMPA

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# 1

# Section One

# Section 1
# Introduction

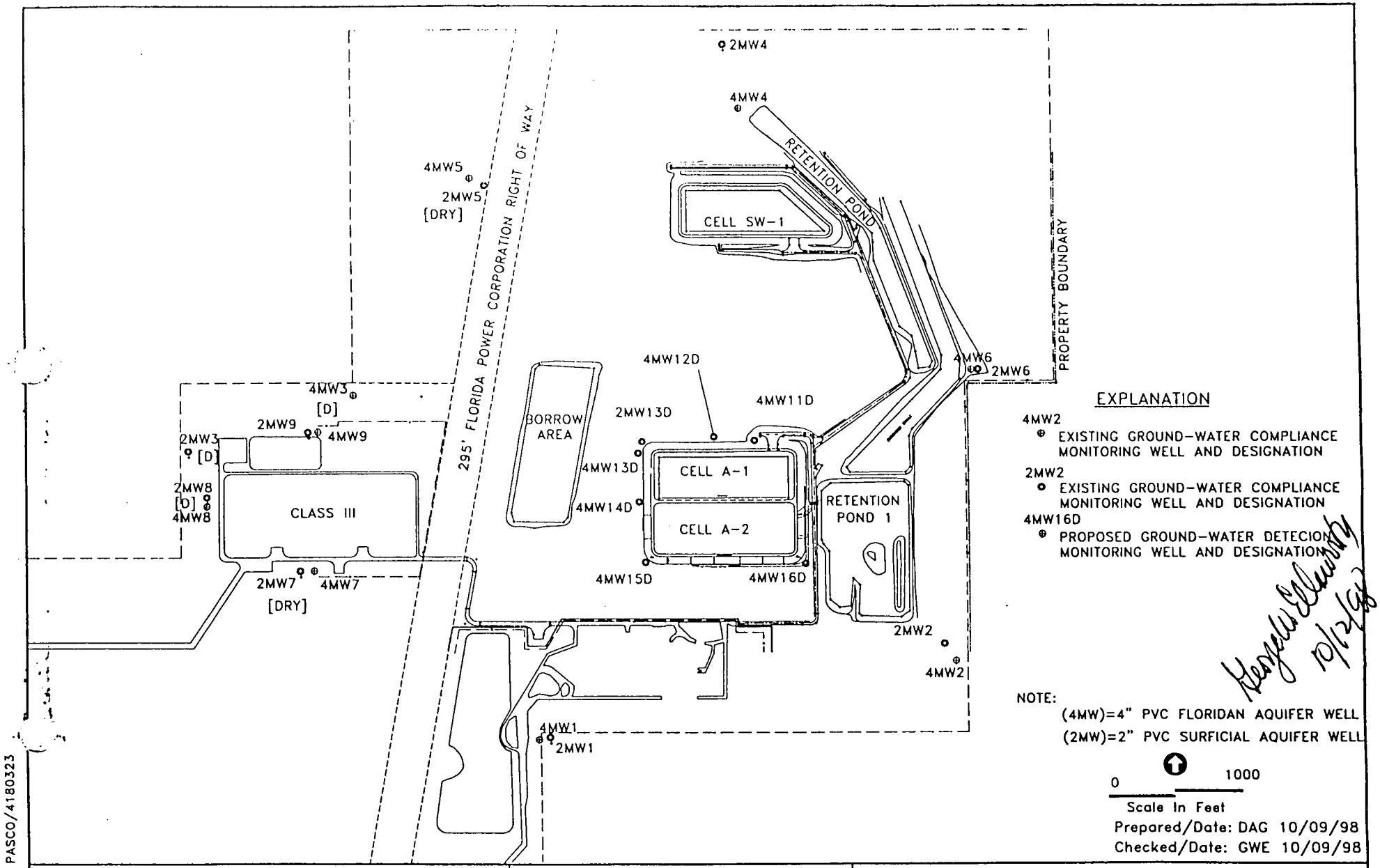
## 1.1 Background

Pasco County owns and operates the West Pasco Class III Landfill located in Spring Hill, Florida. The landfill is an integral unit of the Pasco County Resource Recovery Facility, and is currently permitted to operate under Permit No. SO51-267334. Construction and Demolition (C&D) debris that is received at the Resource Recovery Facility is directed to the Class III disposal units. The landfill is equipped with a geosynthetic liner and leachate collection system. Collected leachate is directed to one of two underground storage tanks referred to as Tank 1 and Tank 2 and piped directly to the Shady Hills Advanced Wastewater Treatment Facility.

## 1.2 Groundwater Monitoring Plan

Pasco County monitors the landfill liner performance through use of a groundwater monitoring plan ("Plan") that was submitted to and approved by the Florida Department of Environmental Protection ("FDEP") in 1988. The current Plan consists of periodic monitoring of five surficial aquifer wells numbered 2MW3, 2MW7, 2MW8, 2MW9, 2MW10 and four Floridan aquifer wells numbered 4MW3A, 4MW7, 4MW8, 4MW9 (see Figure 1-1).

Sampling of the wells is conducted by Pasco County Environmental Laboratory ("laboratory") personnel. Groundwater sampling procedures used by the laboratory, including sampling equipment decontamination, field measurements, sample shipment, and sample analysis adhere to an FDEP approved Quality Assurance Plan (QAP.)




PASCO/4180323

West Pasco Class III Landfill
Pasco County
Board of County Commissioners
Utility Services Branch
Pasco County, Florida

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

RESOUCE RECOVERY FACILITY
PASCO COUNTY, FLORIDA
SURFICIAL AQUIFER WATER TABLE MAP
JULY 1998

Project 40141-5-0869

Figure 1

# 2

# Section Two

# Section 2
# Groundwater Quality Data

## 2.1 Data Tabulation

Tables 2-1 through 2-9 present the results of routine (semi-annual) monitoring conducted since the permit was last renewed in 1995. This data has previously been supplied to the Department in accordance with the expiring permit. The shallow wells monitoring the surficial aquifer have remained dry and un-sampleable since 1995.

Table 2-10 presents the results of leachate analyses from Tanks 1 and 2 required by the expiring permit.

## Table 2-1
## Monitoring Well 4MW-3a (background)

ACTUALLY REPORTED AT 0.0004 mg/L

| parameter | GW STD | units | 1995 1Q95 | 1995 3Q95 | 1996 1Q96 | 1996 3Q96 | 1997 1Q97 | 1997 3Q97 | 1998 1Q98 | 1998 3Q98 | 1999 1Q99 | 1999 3Q99 | 2000 1Q00 | 2000 3Q00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| conductivity | | umhos/cm | 301 | 339 | 249 | 482 | 388 | 383 | 761 | 740 | 580 | 425 | 336 | 350 |
| pH | | s.u. | 7.22 | 7.35 | 7.3 | 7.25 | 7 | 7.25 | 7.29 | 6.95 | 7.08 | 7.25 | 6.79 | 7.14 |
| dissolved oxygen | | mg/l | 1.7 | 1.6 | 1.88 | | | 0.87 | | | | 0.55 | 1.2 | 1 |
| turbidity | | NTU | 1.5 | 1.17 | 0.944 | 3.46 | 0.9 | 1.18 | 0.28 | 0.3 | 0.37 | 1.7 0 | 0 | 0.01 NA |
| total ammonia | — | mg/l | | 0.16 | 0.24 | 0.1 | 0.29 | 0.12 | 0.08 | ND | ND | 0.17 | ND | ND |
| chlorides | 250 | mg/l | 22.4 | 23.7 | 47.7 | 67.2 | 39.6 | 41.9 | 150 | 143 | 105 | 41 | 30.1 | 30 |
| iron | 0.3 | mg/l | 0.16 | 0.19 | 0.19 | 0.34 | 0.25 | 0.21 | 0.17 | 0.15 | 0.17 | 0.4 | 0.29 | 0.28 |
| mercury | 0.002 | mg/l | | | ND | 0.0005 | 0.0002 | 0.0007 | 0.0007 | 0.0009 | 0.004 | ND | ND | ND |
| sulfate | 250 | mg/l | ND | 2.76 | 5.4 | 8 | 2.73 | 4.68 | 27.1 | 33.7 | 22.6 | 29.1 | 3.31 | 3.37 |
| bicarbonate | — | mg/l | 150 | 146 | 145 | 143 | 146 | 148 | 143 | 160 | 151 | 151 | 148 | 149 |
| TOC | — | mg/l | 9.05 | 14.6 | 23.2 | 1.11 | 2.57 | 2.19 | 2.12 | 3.05 | ND | 2.02 | 1.77 | 1.31 |
| nitrate | 10 | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sodium | 160 | mg/l | 6.02 | 6.25 | 10.9 | 17.2 | 9.26 | 10.7 | 43 | 38.5 | 29 | 12.7 | 8.71 | 7.58 |
| TDS | 500 | mg/l | 244 | 221 | 295 | 402 | 270 | 305 | 1020 | 480 | 445 | 282 | 230 | 252 |
| antimony | 0.006 | mg/l | | | ND | ND | ND | ND | ND | ND | ND | 0.00104 | 0.011 | ND |
| arsenic | 0.05 | mg/l | | | ND | ND | ND | 0.0029 | ND | ND | 0.0064 | 0.00168 | 0.00124 | 0.00129 |
| barium | 2 | mg/l | | | ND | 0.045 | 0.011 | ND | 0.035 | 0.027 | 0.019 | 0.0132 | 0.0118 | 0.00989 |
| beryllium | 0.004 | mg/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cadmium | 0.005 | mg/l | | | ND | ND | ND | ND | 0.00017 | ND | ND | ND | ND | ND |
| chromium | 0.1 | mg/l | | | 0.0008 | ND | ND | ND | 0.09 | ND | ND | 0.00132 | 0.00032 | ND |
| cobalt | — | mg/l | | | ND | ND | ND | ND | 0.042 | ND | ND | 0.000121 | 0.000217 | 0.000164 |
| copper | 1 | mg/l | | | ND | ND | ND | 0.012 | 0.014 | ND | ND | 0.00164 | 0.00282 | 0.000906 |
| lead | 0.015 | mg/l | | | ND | ND | ND | 0.00056 | ND | ND | ND | 0.000188 | 0.00116 | ND |
| nickel | 0.1 | mg/l | | | ND | ND | ND | 0.047 | 0.079 | ND | ND | 0.00182 | 0.00194 | 0.00172 |
| selenium | 0.05 | mg/l | | | ND | ND | ND | ND | 0.0038 | ND | ND | 0.00305 | 0.000994 | ND |
| silver | 0.1 | mg/l | | | ND | ND | ND | ND | ND | ND | ND | 0.000338 | 0.000263 | ND |
| thallium | 0.002 | mg/l | | | ND | ND | ND | ND | ND | ND | ND | 0.000427 | 0.000202 | ND |
| vanadium | — | mg/l | | | ND | ND | ND | ND | 0.013 | ND | 0.00049 | 0.000811 | 0.000978 | 0.000509 |
| zinc | 5 | mg/l | | | ND | ND | ND | ND | 0.024 | ND | ND | ND | 0.0128 | 0.0344 |
| acetone | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| acrylonitrile | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| benzene | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromochloromethane | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromodichloromethane | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromoform | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon disulfide | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon tetrachloride | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chlorobenzene | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroethane | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroform | | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

DETECTION LIMITS FOR EDB, DBCP OK FOR 1/99 EVENT

ELEVATED MDL EDB, DBCP

**Table 2-1**
**Monitoring Well 4MW-3a (background)**

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| bibromochloromethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-dichlorobenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-dichlorobenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trasns-1,4-Dichloro-2-butene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl bromide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl chloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | 4.18 | ND | ND |
| Methylene bromide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl ethyl ketone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl iodide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroflouromethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl acetate | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl chloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Xylenes | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

METHYLENE CHLORIDE DETECTED IN 4MW-34 DURING 8/99 SAMPLING EVENT

ELEVATED MDL

Table 2-2
Monitoring Well 4MW-7 (compliance)

| parameter | | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| conductivity | | umhos/cm | 211 | 222 | 245 | 229 | DRY | DRY | 270 | 270 | 225 | DRY | DRY | DRY |
| pH | | s.u. | 7.24 | 7.21 | 7.14 | 7.78 | DRY | DRY | 7.65 | 7.24 | 7.38 | DRY | DRY | DRY |
| dissolved oxygen | | mg/l | 1.72 | 2.4 | 1.29 | | DRY | DRY | | | | DRY | DRY | DRY |
| turbidity | | NTU | 0.3 | 0.61 | 0.425 | 0.3 | DRY | DRY | 0.56 | 0.3 | 0.18 | DRY | DRY | DRY |
| total ammonia | | mg/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| chlorides | 250 | mg/l | 6.64 | 6.2 | 4.7 | 5.15 | DRY | DRY | 5.18 | 7.34 | 5.3 | DRY | DRY | DRY |
| iron | 0.3 | mg/l | 0.07 | 0.02 | 0.04 | ND | DRY | DRY | 0.03 | ND | ND | DRY | DRY | DRY |
| mercury | 0.002 | mg/l | | | 0.0008 | 0.0005 | DRY | DRY | 0.0009 | 0.0007 | 0.0003 | DRY | DRY | DRY |
| sulfate | 250 | mg/l | 1.44 | 3.55 | 1 | 18.7 | DRY | DRY | 2.5 | ND | ND | DRY | DRY | DRY |
| bicarbonate | — | mg/l | 114 | 111 | 131 | 110 | DRY | DRY | 136 | 152 | 123 | DRY | DRY | DRY |
| TOC | — | mg/l | 4.87 | 7.63 | 16.6 | 1.56 | DRY | DRY | 1.97 | 1.58 | ND | DRY | DRY | DRY |
| nitrate | 10 | mg/l | ND | 0.2 | 0.19 | ND | DRY | DRY | 0.21 | ND | ND | DRY | DRY | DRY |
| sodium | 160 | mg/l | 3.88 | 3.56 | 3.3 | 3.45 | DRY | DRY | 3.51 | 3.23 | 3.44 | DRY | DRY | DRY |
| TDS | 500 | mg/l | 141 | 136 | 204 | 149 | DRY | DRY | 268 | 180 | 159 | DRY | DRY | DRY |
| antimony | 0.006 | mg/l | | 0.004 | 0.026 | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| arsenic | 0.05 | mg/l | | ND | ND | ND | DRY | DRY | ND | ND | 0.0034 | DRY | DRY | DRY |
| barium | 2 | mg/l | | ND | ND | ND | DRY | DRY | ND | 0.011 | 0.0048 | DRY | DRY | DRY |
| beryllium | 0.004 | mg/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| cadmium | 0.005 | mg/l | | ND | ND | ND | DRY | DRY | 0.00009 | ND | ND | DRY | DRY | DRY |
| chromium | 0.1 | mg/l | | ND | ND | ND | DRY | DRY | 0.024 | ND | ND | DRY | DRY | DRY |
| cobalt | — | mg/l | | ND | ND | ND | DRY | DRY | 0.037 | ND | ND | DRY | DRY | DRY |
| copper | 1 | mg/l | | ND | ND | ND | DRY | DRY | 0.003 | ND | ND | DRY | DRY | DRY |
| lead | 0.015 | mg/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| nickel | 0.1 | mg/l | | ND | ND | ND | DRY | DRY | 0.064 | ND | ND | DRY | DRY | DRY |
| selenium | 0.05 | mg/l | | ND | ND | ND | DRY | DRY | 0.0032 | ND | ND | DRY | DRY | DRY |
| silver | 0.1 | mg/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| thallium | 0.002 | mg/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| vanadium | — | mg/l | | ND | ND | ND | DRY | DRY | 0.02 | ND | 0.0013 | DRY | DRY | DRY |
| zinc | 5 | mg/l | | 0.004 | ND | ND | DRY | DRY | 0.027 | ND | ND | DRY | DRY | DRY |
| acetone | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| acrylonitrile | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| benzene | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| bromochloromethane | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| bromodichloromethane | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| bromoform | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| carbon disulfide | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| carbon tetrachloride | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| chlorobenzene | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| chloroethane | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| chloroform | | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |

Table 2-2
Monitoring Well 4MW-7 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| bibromochloromethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,2-Dibromo-3-chloropropane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,2-Dibromomethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| o-dichlorobenzene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| p-dichlorobenzene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| trasns-1,4-Dichloro-2-butene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,1-Dichloroethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,2-Dichloroethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,1-Dichloroethylene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| cis-1,2-Dichloroethylene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| trans-1,2-Dichloroethylene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,2-Dichloropropane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| cis-1,3-Dichloropropene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| trans-1,3-Dichloropropene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Ethylbenzene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 2-Hexanone | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Methyl bromide | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Methyl chloride | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Methylene bromide | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Methylene chloride | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Methyl ethyl ketone | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Methyl iodide | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 4-Methyl-2-pentanone | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Styrene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,1,1,2-Tetrachloroethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,1,2,2-Tetrachloroethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Tetrachloroethylene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Toluene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,1,1-Trichloroethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,1,2-Trichloroethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Trichloroethylene | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| Trichloroflouromethane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |
| 1,2,3-Trichloropropane | ug/l | | ND | ND | ND | DRY | DRY | ND | ND | ND | DRY | DRY | DRY |

MISSING 3 PARAMETERS
VINYL ACETATE
VINYL CHLORIDE
XYLENES

**Table 2-3**
**Monitoring Well 4MW-8 (compliance)**

| parameter | | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3Q95 | 4Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| conductivity | | umhos/cm | 248 | 271 | 262 | 282 | 279 | 261 | 285 | 275 | 260 | 287 | 274 | 290 |
| pH | | s.u. | 7.25 | 7.27 | 7.12 | 7.54 | 7.21 | 7.02 | 7.54 | 7.13 | 7.22 | 7.28 | 7.12 | 7 |
| dissolved oxygen | | mg/l | 1.1 | 1 | 0.58 | | | 1 | | | | 0.7 | 1 | 1 |
| turbidity | | NTU | 0.8 | 0.89 | 1.72 | 1.3 | 0.8 | 0.24 | 0.6 | 0.9 | 1.09 | 0.84 | 0 | 0.01 NA |
| total ammonia | | mg/l | | ND | ND | ND | 0.24 | ND | ND | ND | ND | ND | ND | ND |
| chlorides | 250 | mg/l | 6.64 | 6.3 | 5.6 | 6.2 | 5.5 | 5.31 | 6.82 | 7.31 | 7.89 | 9.69 | 8.16 | 7.33 |
| iron | 0.3 | mg/l | ND | 0.08 | 0.08 | 0.02 | 0.06 | 0.05 | 0.04 | ND | ND | ND | 0.06 | 0.07 |
| mercury | 0.002 | mg/l | | | 0.0009 | ND | 0.0003 | 0.0006 | 0.001 | 0.0007 | 0.0004 | 0.0006 | ND | ND |
| sulfate | 250 | mg/l | 1.6 | ND | ND | 15.4 | 1.36 | 1.96 | 1.26 | ND | ND | ND | ND | ND |
| bicarbonate | — | mg/l | 141 | 137 | 138 | 138 | 142 | 146 | 148 | 152 | 145 | 144 | 143 | 149 |
| TOC | — | mg/l | 5.96 | 11.3 | 19.8 | 2.06 | 1.18 | 0.86 | 1.38 | 0.77 | ND | 0.59 | 0.83 | ND |
| nitrate | 10 | mg/l | ND | 0.02 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.27 |
| sodium | 160 | mg/l | 3.7 | 3.55 | 3.54 | 3.56 | 3.49 | 3.51 | 3.55 | 3.73 | 3.59 | 3.49 | 3.61 | 3.53 |
| TDS | 500 | mg/l | 186 | 151 | 181 | 176 | 161 | 181 | 192 | 176 | 207 | 196 | 184 | 208 |
| antimony | 0.006 | mg/l | | ND | 0.027 | ND | ND | ND | ND | ND | ND | 0.000889 | 0.00188 | ND |
| arsenic | 0.05 | mg/l | | ND | ND | ND | ND | 0.0009 | ND | ND | 0.004 | 0.000989 | 0.00095 | 0.000844 |
| barium | 2 | mg/l | | ND | ND | 0.025 | 0.007 | ND | 0.019 | 0.011 | 0.0062 | 0.0101 | 0.0105 | 0.00678 |
| beryllium | 0.004 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cadmium | 0.005 | mg/l | | ND | ND | ND | ND | ND | 0.00051 | ND | ND | 0.000166 | ND | ND |
| chromium | 0.1 | mg/l | | ND | ND | ND | ND | 0.061 | 0.028 | ND | ND | 0.00173 | 0.000191 | 0.000683 |
| cobalt | — | mg/l | | ND | ND | ND | ND | ND | 0.057 | ND | ND | 0.000208 | 0.000128 | 0.000136 |
| copper | 1 | mg/l | | ND | ND | ND | ND | 0.01 | 0.006 | ND | ND | 0.00656 | 0.00303 | 0.00117 |
| lead | 0.015 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000372 | 0.000269 | 0.000191 |
| nickel | 0.1 | mg/l | | ND | ND | ND | ND | 0.07 | ND | 0.006 | ND | 0.00134 | 0.00165 | 0.00139 |
| selenium | 0.05 | mg/l | | ND | ND | ND | ND | ND | 0.0038 | ND | ND | 0.00118 | 0.000594 | 0.000989 |
| silver | 0.1 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000241 | ND | ND |
| thallium | 0.002 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000183 | ND | ND |
| vanadium | — | mg/l | | ND | ND | ND | ND | ND | ND | ND | 0.0011 | 0.00142 | 0.00183 | 0.000917 |
| zinc | 5 | mg/l | | 0.005 | 0.088 | ND | ND | ND | ND | ND | ND | 0.00266 | ND | 0.0045 |
| acetone | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| acrylonitrile | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| benzene | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromochloromethane | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromodichloromethane | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromoform | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon disulfide | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Table 2-3
Monitoring Well 4MW-8 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3Q95 | 4Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| carbon tetrachloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroform | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bibromochloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trasns-1,4-Dichloro-2-butene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | 5.78 | 1.21 | ND |
| Methyl ethyl ketone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl iodide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroflouromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MISSING 3 PARAMETERS

Table 2-4
Monitoring Well 4MW-9 (compliance)

| parameter | | units | 1995 1Q95 | 1995 3Q95 | 1996 1Q96 | 1996 3Q96 | 1997 1Q97 | 1997 3Q97 | 1998 1Q98 | 1998 3Q98 | 1999 1Q99 | 1999 3Q99 | 2000 1Q00 | 2000 3Q00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| conductivity | | umhos/cm | 282 | 271 | 334 | 310 | 313 | 315 | 348 | 340 | 315 | 357 | 336 | 424 |
| pH | | s.u. | 7.15 | 7.19 | 7.47 | 7.26 | 7.09 | 7.11 | 7.3 | 7 | 7.2 | 7.12 | 7 | 6.7 |
| dissolved oxygen | | mg/l | 0.8 | 1 | 0.76 | | 0.5 | | | | | 0.5 | 0.9 | 0.9 |
| turbidity | | NTU | 0.7 | 0.32 | 0.563 | 0.3 | 0.3 | 0.15 | 0.11 | 0.55 | 0.1 | 0.08 | 0 | 0.01 NA |
| total ammonia | | mg/l | | ND | ND | ND | 0.08 | ND | ND | ND | ND | 0.03 | ND | ND |
| chlorides | 250 | mg/l | 9.69 | 16.3 | 9.7 | 6.6 | 10.8 | 12.1 | 9.9 | 18.1 | 19 | 20.4 | 18.5 | 3.8 |
| iron | 0.3 | mg/l | ND | 0.05 | 0.08 | 0.03 | 0.06 | 0.07 | 0.03 | 0.03 | ND | ND | 0.02 | 0.09 |
| mercury | 0.002 | mg/l | | | 0.0007 | ND | 0.0003 | 0.0006 | 0.001 | 0.0009 | 0.0003 | 0.0002 | ND | ND |
| sulfate | 250 | mg/l | 1.25 | 3.5 | ND | ND | 1.41 | 2.63 | ND | 2.12 | 1.89 | 1.77 | 1.7 | 2.41 |
| bicarbonate | — | mg/l | 160 | 137 | 159 | 146 | 153 | 158 | 179 | 170 | 152 | 161 | 167 | 207 |
| TOC | — | mg/l | 6.82 | 15 | 20.9 | 1.67 | 1.18 | 1.15 | 1.81 | 1.01 | ND | 0.99 | 0.89 | 2.32 |
| nitrate | 10 | mg/l | ND | 0.55 | ND | ND | ND | ND | ND | ND | 0.19 | 0.12 | ND | 1.75 |
| sodium | 160 | mg/l | 3.6 | 5.39 | 4.22 | 3.82 | 3.8 | 4.08 | 4.24 | 4.88 | 4.6 | 4.67 | 4.55 | 5.03 |
| TDS | 500 | mg/l | 209 | 226 | 232 | 185 | 199 | 217 | 295 | 232 | 229 | 212 | 233 | 306 |
| antimony | 0.006 | mg/l | | ND | 0.018 | ND | ND | 0.0049 | ND | ND | ND | ND | 0.00034 | ND |
| arsenic | 0.05 | mg/l | | ND | ND | ND | ND | 0.0043 | ND | ND | 0.004 | 0.000961 | 0.000889 | 0.00112 |
| barium | 2 | mg/l | | ND | ND | ND | 0.007 | ND | 0.028 | 0.012 | 0.019 | 0.00894 | 0.009 | 0.0123 |
| beryllium | 0.004 | mg/l | | ND | ND | ND | ND | ND | 0.0021 | ND | ND | ND | ND | ND |
| cadmium | 0.005 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chromium | 0.1 | mg/l | | ND | ND | ND | ND | 0.036 | 0.036 | ND | ND | 0.00323 | 0.000429 | 0.00102 |
| cobalt | — | mg/l | | ND | ND | ND | ND | ND | 0.066 | ND | ND | ND | 0.000122 | 0.000211 |
| copper | 1 | mg/l | | ND | ND | ND | ND | 0.035 | 0.006 | ND | ND | 0.00389 | 0.00137 | 0.00177 |
| lead | 0.015 | mg/l | | ND | ND | ND | ND | 0.00025 | ND | ND | ND | 0.000822 | 0.000326 | 0.000114 |
| nickel | 0.1 | mg/l | | ND | ND | ND | ND | 0.055 | 0.151 | ND | ND | 0.00152 | 0.00233 | 0.00221 |
| selenium | 0.05 | mg/l | | ND | ND | ND | ND | ND | 0.005 | ND | ND | 0.00181 | ND | 0.000155 |
| silver | 0.1 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000253 | ND | ND |
| thallium | 0.002 | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000163 | ND | ND |
| vanadium | — | mg/l | | ND | ND | ND | ND | ND | 0.033 | ND | ND | 0.000477 | 0.000542 | 0.000526 |
| zinc | 5 | mg/l | | ND | 0.083 | ND | ND | ND | 0.039 | ND | ND | 0.0182 | ND | 0.0101 |
| acetone | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| acrylonitrile | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| benzene | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromochloromethane | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromodichloromethane | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromoform | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon disulfide | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon tetrachloride | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chlorobenzene | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroethane | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroform | | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Table 2-4
Monitoring Well 4MW-9 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| bibromochloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trasns-1,4-Dichloro-2-butene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | 5.69 | ND | ND |
| Methyl ethyl ketone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl iodide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroflouromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MISSING 3 PARAMETERS

Table 2-5
Monitoring Well 2MW-3 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| conductivity | umhos/cm | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| pH | s.u. | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| dissolved oxygen | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| turbidity | NTU | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| total ammonia | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorides | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| iron | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| mercury | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sulfate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bicarbonate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TOC | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nitrate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sodium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TDS | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| antimony | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| arsenic | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| barium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| beryllium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cadmium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chromium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cobalt | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| copper | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| lead | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nickel | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| selenium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| silver | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| thallium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| vanadium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| zinc | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acetone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acrylonitrile | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| benzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromodichloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromoform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon disulfide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon tetrachloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chloroform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-5
Monitoring Well 2MW-3 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| bibromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromo-3-chloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromomethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| o-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| p-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trasns-1,4-Dichloro-2-butene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Ethylbenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 2-Hexanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl ethyl ketone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl iodide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 4-Methyl-2-pentanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Styrene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Tetrachloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Toluene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroflouromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2,3-Trichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

MISSING 3 PARAMETERS

Table 2-6
Monitoring Well 2MW-7 (compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *1Q95* | *3Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| conductivity | umhos/cm | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| pH | s.u. | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| dissolved oxygen | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| turbidity | NTU | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| total ammonia | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorides | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| iron | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| mercury | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sulfate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bicarbonate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TOC | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nitrate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sodium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TDS | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| antimony | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| arsenic | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| barium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| beryllium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cadmium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chromium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cobalt | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| copper | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| lead | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nickel | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| selenium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| silver | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| thallium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| vanadium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| zinc | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acetone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acrylonitrile | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| benzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromodichloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromoform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon disulfide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon tetrachloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-6
Monitoring Well 2MW-7 (compliance)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| chloroform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bibromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromo-3-chloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromomethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| o-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| p-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trasns-1,4-Dichloro-2-butene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Ethylbenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 2-Hexanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl ethyl ketone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl iodide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 4-Methyl-2-pentanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Styrene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Tetrachloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Toluene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroflouromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2,3-Trichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl acetate | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Xylenes | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

MISSING 3 PARAMETERS

Table 2-7
Monitoring Well 2MW-8 (compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *1Q95* | *3Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| conductivity | umhos/cm | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| pH | s.u. | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| dissolved oxygen | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| turbidity | NTU | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| total ammonia | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorides | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| iron | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| mercury | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sulfate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bicarbonate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TOC | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nitrate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sodium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TDS | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| antimony | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| arsenic | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| barium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| beryllium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cadmium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chromium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cobalt | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| copper | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| lead | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nickel | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| selenium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| silver | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| thallium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| vanadium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| zinc | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acetone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acrylonitrile | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| benzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromodichloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromoform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon disulfide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon tetrachloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-7
Monitoring Well 2MW-8 (compliance)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| chloroform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bibromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromo-3-chloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromomethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| o-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| p-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trasns-1,4-Dichloro-2-butene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Ethylbenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 2-Hexanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl ethyl ketone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl iodide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 4-Methyl-2-pentanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Styrene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Tetrachloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Toluene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroflouromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2,3-Trichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl acetate | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Xylenes | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-8
Monitoring Well 2MW-9 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| conductivity | umhos/cm | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| pH | s.u. | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| dissolved oxygen | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| turbidity | NTU | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| total ammonia | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorides | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| iron | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| mercury | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sulfate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bicarbonate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TOC | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nitrate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sodium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TDS | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| antimony | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| arsenic | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| barium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| beryllium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cadmium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chromium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cobalt | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| copper | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| lead | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nickel | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| selenium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| silver | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| thallium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| vanadium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| zinc | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acetone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acrylonitrile | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| benzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromodichloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromoform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon disulfide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon tetrachloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-8
Monitoring Well 2MW-9 (compliance)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| chloroform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bibromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromo-3-chloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromomethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| o-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| p-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trasns-1,4-Dichloro-2-butene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Ethylbenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 2-Hexanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl ethyl ketone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl iodide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 4-Methyl-2-pentanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Styrene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Tetrachloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Toluene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroflouromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2,3-Trichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl acetate | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Xylenes | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-9
Monitoring Well 2MW-10
(compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *1Q95* | *3Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| conductivity | umhos/cm | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| pH | s.u. | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| dissolved oxygen | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| turbidity | NTU | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| total ammonia | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorides | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| iron | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| mercury | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sulfate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bicarbonate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TOC | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nitrate | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| sodium | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| TDS | mg/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| antimony | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| arsenic | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| barium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| beryllium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cadmium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chromium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cobalt | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| copper | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| lead | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| nickel | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| selenium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| silver | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| thallium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| vanadium | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| zinc | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acetone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| acrylonitrile | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| benzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromodichloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bromoform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon disulfide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| carbon tetrachloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| chloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

Table 2-9
Monitoring Well 2MW-10
(compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *1Q95* | *3Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| chloroform | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| bibromochloromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromo-3-chloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dibromomethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| o-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| p-dichlorobenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trasns-1,4-Dichloro-2-butene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,2-Dichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2-Dichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| cis-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| trans-1,3-Dichloropropene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Ethylbenzene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 2-Hexanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene bromide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methylene chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl ethyl ketone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Methyl iodide | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 4-Methyl-2-pentanone | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Styrene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2,2-Tetrachloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Tetrachloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Toluene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,1-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,1,2-Trichloroethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroethylene | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Trichloroflouromethane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 1,2,3-Trichloropropane | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl acetate | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Vinyl chloride | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| Xylenes | ug/l | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |

**Table 2-10**
**Leachate Tanks 1 and 2**

PRIOR TO FEB 1999 - WHAT DATE?

| parameter | units | Tank 1 | Tank 2 |
|---|---|---|---|
| conductivity | umhos/cm | 336 | 273 |
| pH | s.u. | 6.75 | 6.75 |
| dissolved oxygen | mg/l | 2 | 3.8 |
| colors, sheens | PCU | 1000 | 300 |
| total ammonia | mg/l | 1.36 | 0.24 |
| chlorides | mg/l | 84.6 | 36.9 |
| iron | mg/l | 8.01 | 1.32 |
| mercury | mg/l | ND | ND |
| bicarbonate | mg/l | 456 | 113 |
| nitrate | mg/l | ND | 0.6 |
| sodium | mg/l | 45.5 | 5.37 |
| TDS | mg/l | 420 | 190 |
| | | | |
| antimony | mg/l | 0.00516 | ND |
| arsenic | mg/l | 0.174 | 0.0288 |
| barium | mg/l | 0.0728 | 0.0147 |
| beryllium | mg/l | 0.00144 | 0.00156 |
| cadmium | mg/l | 0.00518 | ND |
| chromium | mg/l | 0.0316 | 0.0113 |
| cobalt | mg/l | 0.00109 | 0.000308 |
| copper | mg/l | 0.0207 | 0.00578 |
| lead | mg/l | 0.00994 | 0.00219 |
| nickel | mg/l | 0.0104 | 0.0012 |
| selenium | mg/l | 0.00578 | 0.00806 |
| silver | mg/l | 0.00263 | 0.000894 |
| thallium | mg/l | 0.000711 | 0.00013 |
| vanadium | mg/l | 0.00667 | 0.00756 |
| zinc | mg/l | 0.0567 | 0.00289 |
| | | | |
| acetone | ug/l | ND | ND |
| acrylonitrile | ug/l | ND | ND |
| benzene | ug/l | ND | ND |
| bromochloromethane | ug/l | ND | ND |
| bromodichloromethane | ug/l | ND | ND |
| bromoform | ug/l | ND | ND |
| carbon disulfide | ug/l | ND | ND |
| carbon tetrachloride | ug/l | ND | ND |
| chlorobenzene | ug/l | ND | ND |
| chloroethane | ug/l | ND | ND |
| chloroform | ug/l | ND | ND |
| bibromochloromethane | ug/l | ND | ND |
| 1,2-Dibromo-3-chloroprop | ug/l | ND | ND |
| 1,2-Dibromomethane | ug/l | ND | ND |
| o-dichlorobenzene | ug/l | ND | ND |
| p-dichlorobenzene | ug/l | ND | ND |
| trasns-1,4-Dichloro-2-but | ug/l | ND | ND |
| 1,1-Dichloroethane | ug/l | ND | ND |
| 1,2-Dichloroethane | ug/l | ND | ND |
| 1,1-Dichloroethylene | ug/l | ND | ND |

**Table 2-10**
**Leachate Tanks 1 and 2**

| *parameter* | *units* | *Tank 1* | *Tank 2* |
|---|---|---|---|
| cis-1,2-Dichloroethylene | ug/l | ND | ND |
| trans-1,2-Dichloroethylen | ug/l | ND | ND |
| 1,2-Dichloropropane | ug/l | ND | ND |
| cis-1,3-Dichloropropene | ug/l | ND | ND |
| trans-1,3-Dichloropropene | ug/l | ND | ND |
| Ethylbenzene | ug/l | ND | ND |
| 2-Hexanone | ug/l | ND | ND |
| Methyl bromide | ug/l | ND | ND |
| Methyl chloride | ug/l | ND | ND |
| Methylene bromide | ug/l | ND | ND |
| Methylene chloride | ug/l | 2.5 | 2.55 |
| Methyl ethyl ketone | ug/l | ND | ND |
| Methyl iodide | ug/l | ND | ND |
| 4-Methyl-2-pentanone | ug/l | ND | ND |
| Styrene | ug/l | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | ND | ND |
| Tetrachloroethylene | ug/l | ND | ND |
| Toluene | ug/l | ND | ND |
| 1,1,1-Trichloroethane | ug/l | ND | ND |
| 1,1,2-Trichloroethane | ug/l | ND | ND |
| Trichloroethylene | ug/l | ND | ND |
| Trichloroflouromethane | ug/l | ND | ND |
| 1,2,3-Trichloropropane | ug/l | ND | ND |
| Vinyl acetate | ug/l | ND | ND |
| Vinyl chloride | ug/l | ND | ND |
| Xylenes | ug/l | ND | ND |

## 2.2 Graphical Presentations

Figures 2-1 through 2-4 present graphical trends of data for which a monitoring parameter was consistently detected during the period. Please note that certain organic parameters reported slightly above the detection limit on an infrequent basis are considered outliers, and were not trended. For instance, a one time only detection of methylene chloride in Well Number 4MW-9 in the second quarter of 1999 is not considered to be a representative value, because its presence has not been detected before or since.

## 2.3 Groundwater Quality Summary/Interpretation

The data suggests that no significant groundwater quality issues exist at the site. No data is available for the surficial aquifer underlying the site because the sampling wells remained dry throughout the past five years. Dry surficial wells have also been observed surrounding the adjacent ash monofill.

Figure 2-1
4MW3A

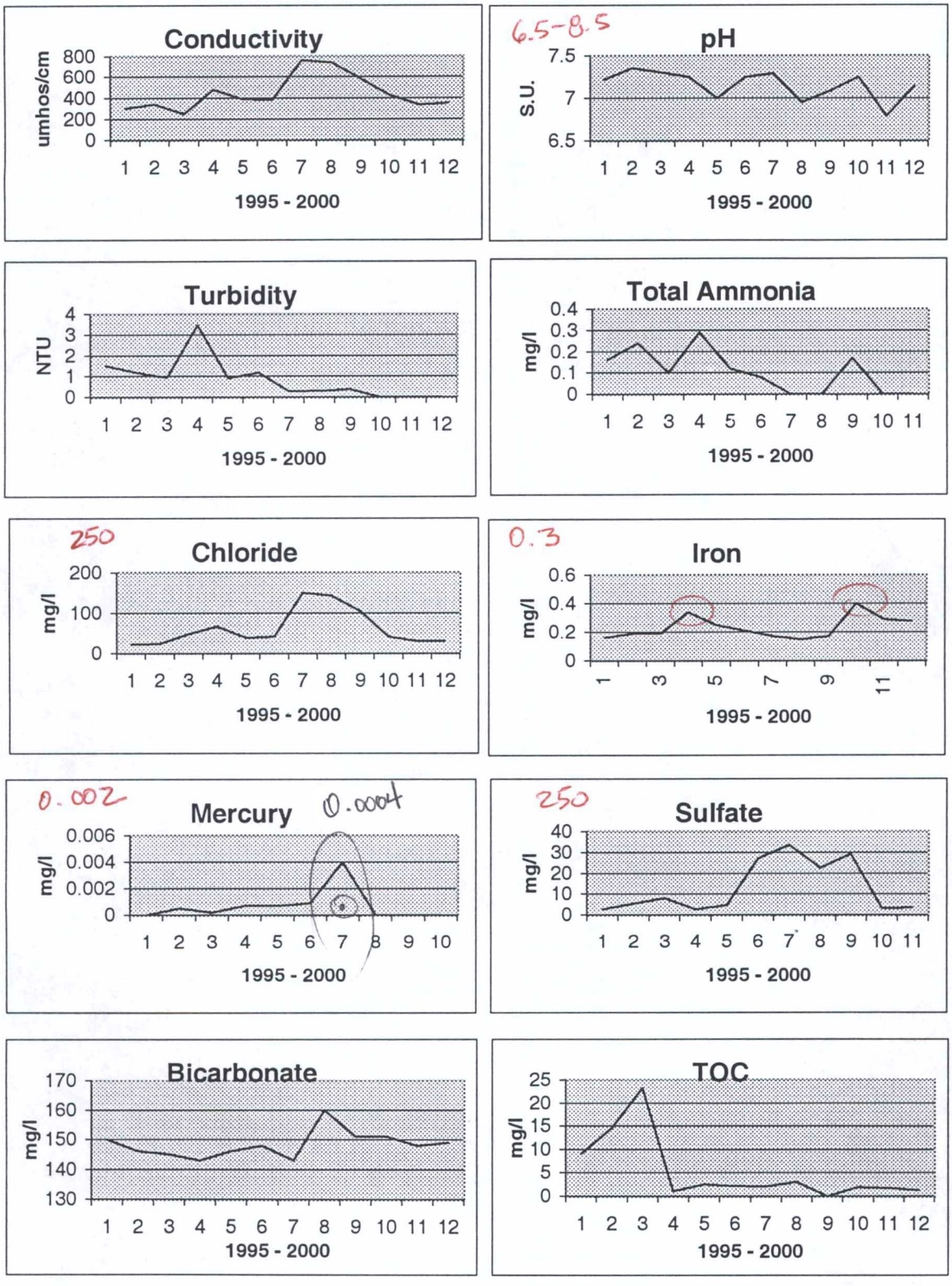
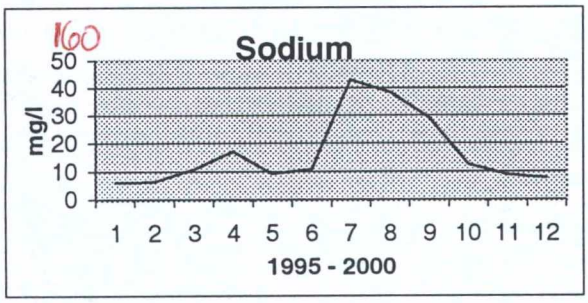
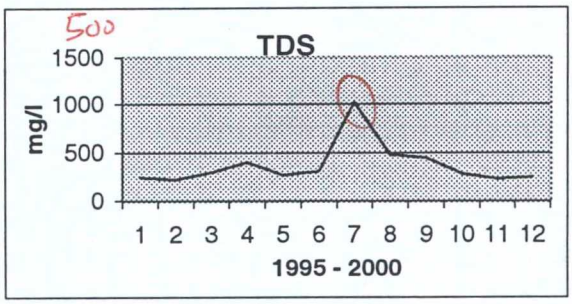
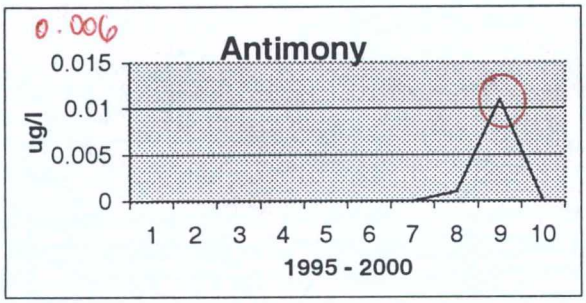
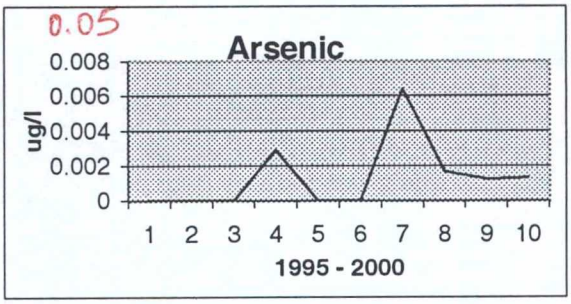


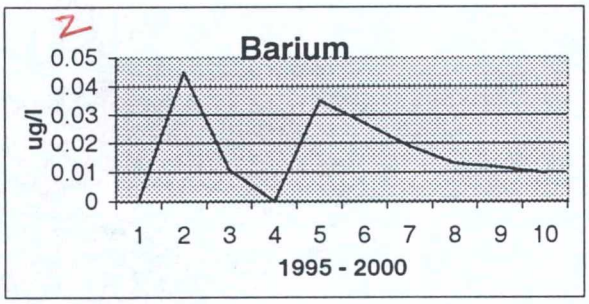
Figure 2-1
4MW3A

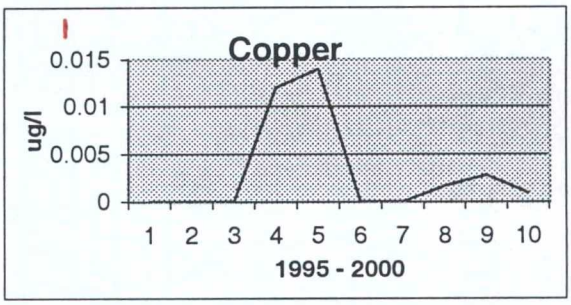


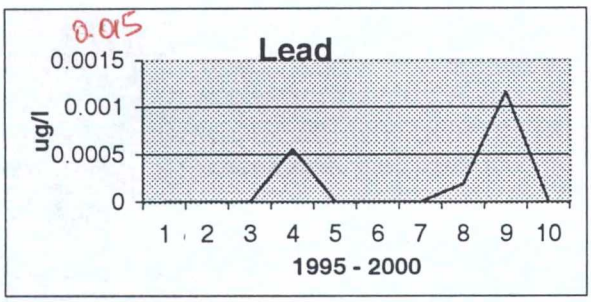



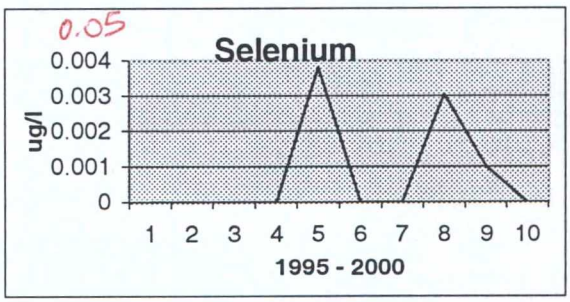



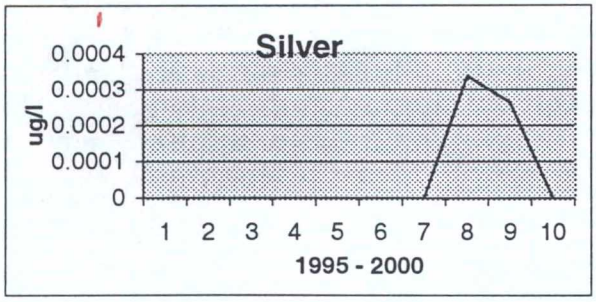



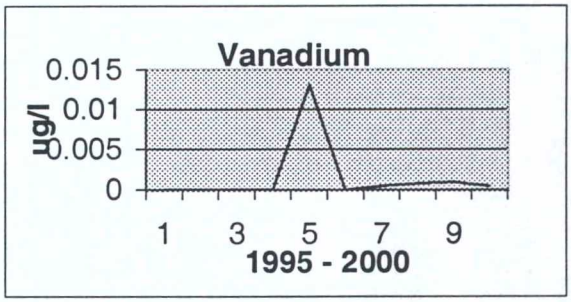
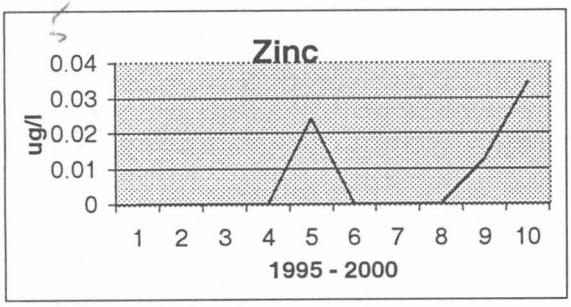



Figure 2-1
4MW3A



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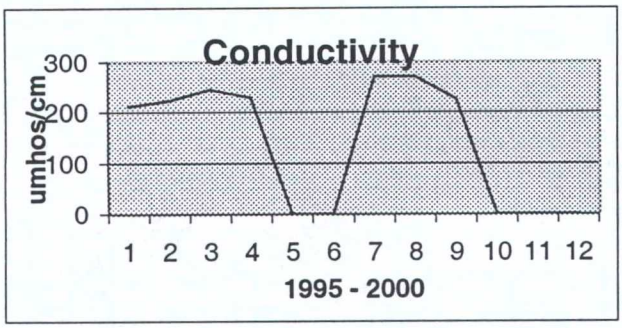
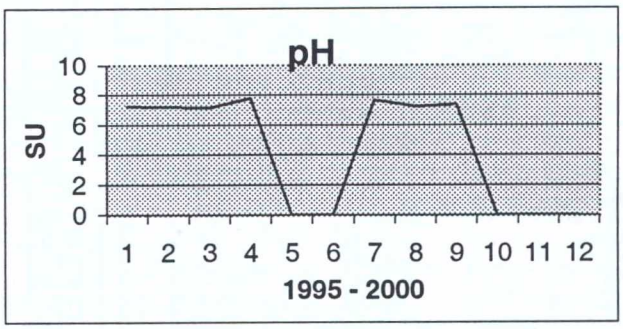
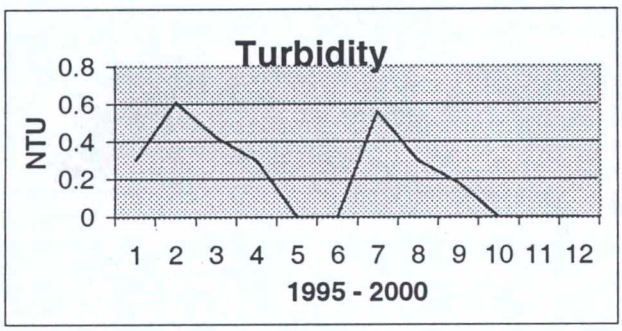
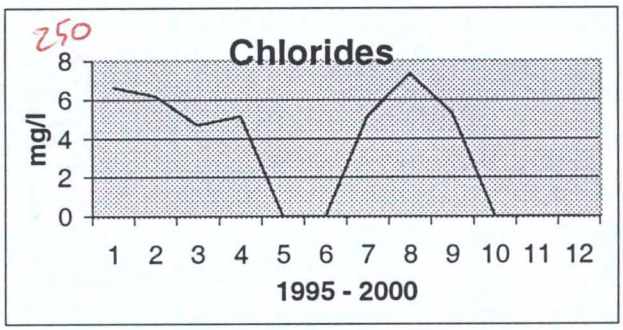
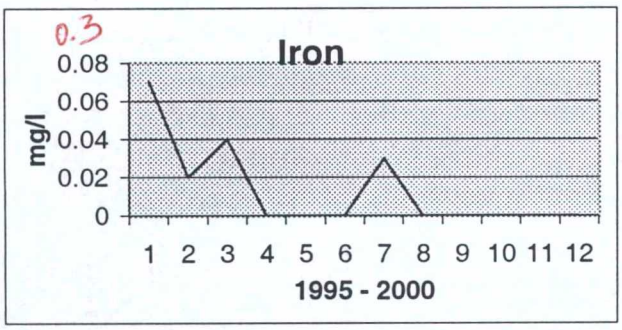
**4MW7**

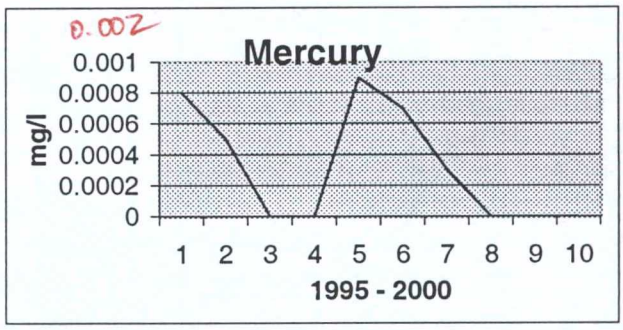


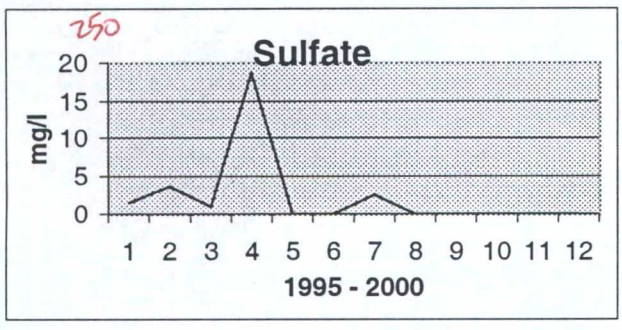



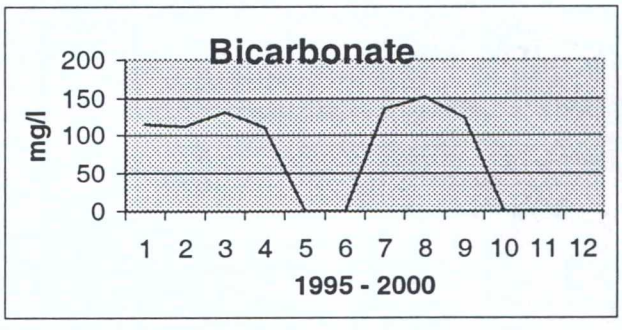



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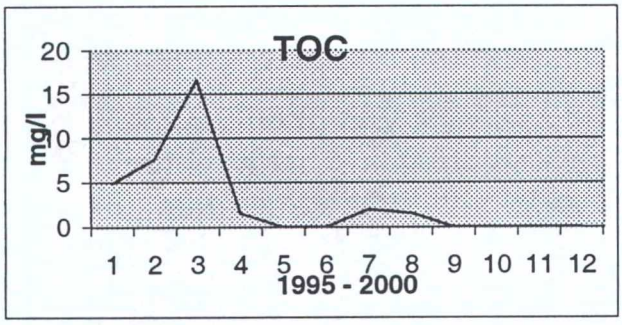
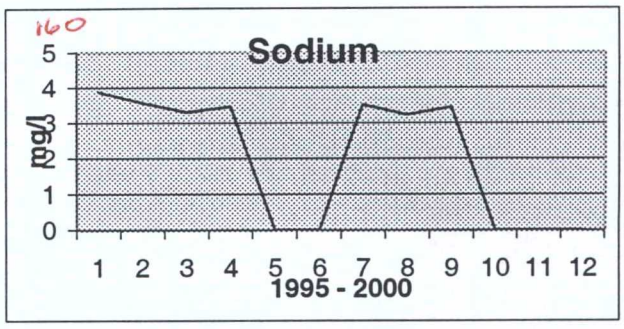
**4MW7**



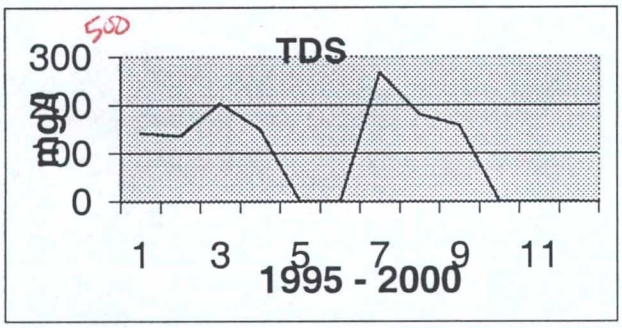
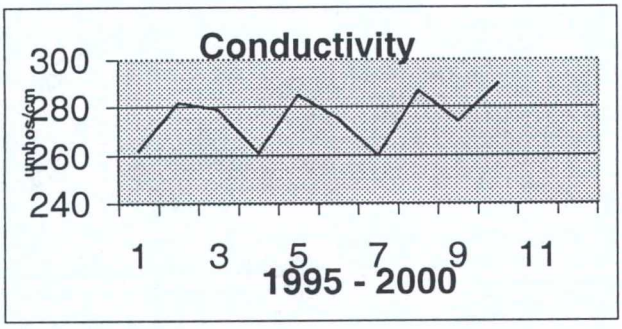
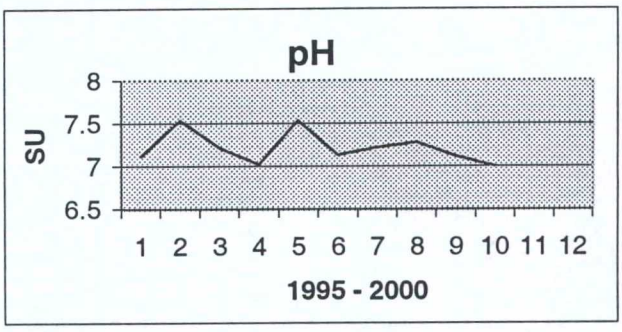
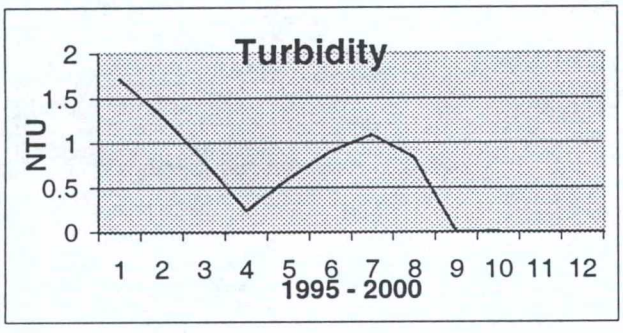
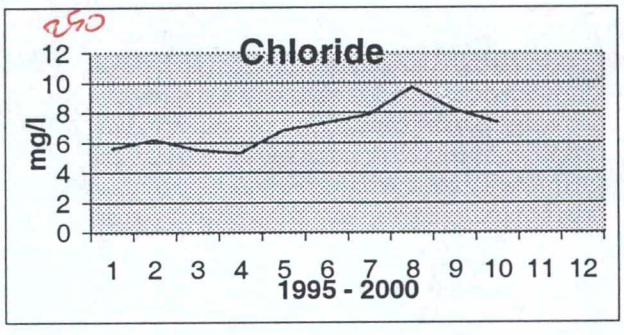



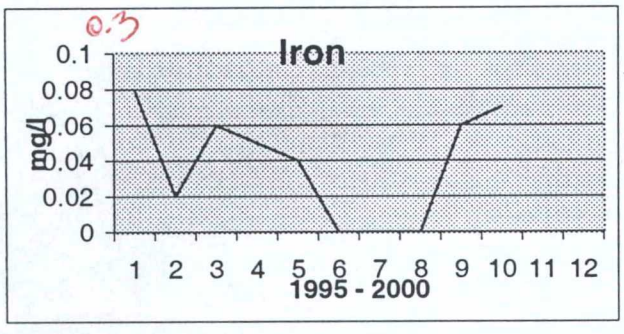
Figure 2-3
4MW8

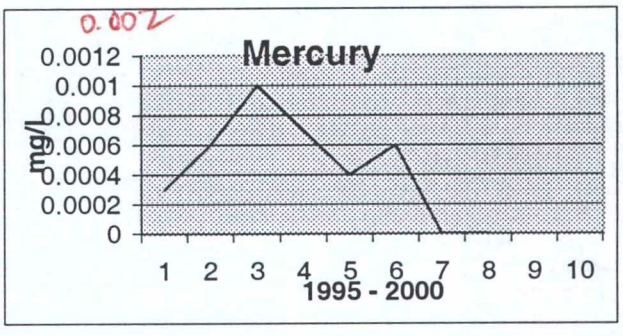


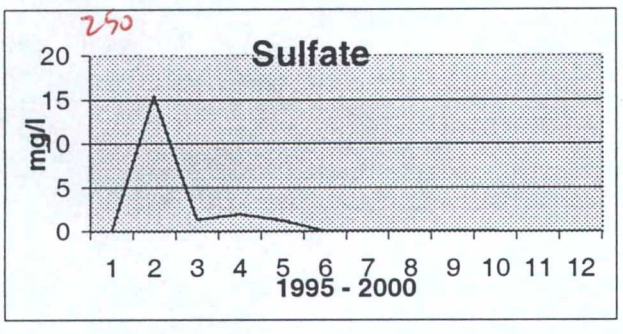



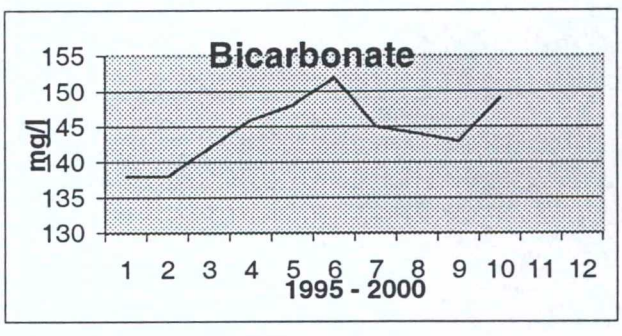
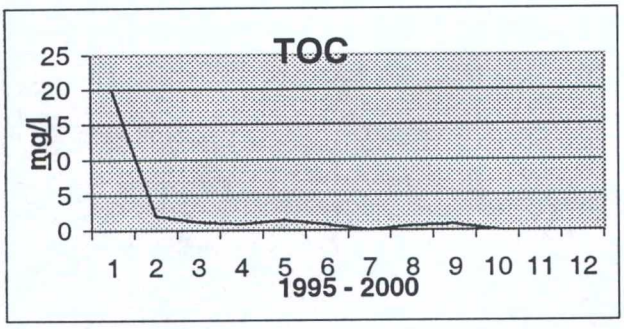
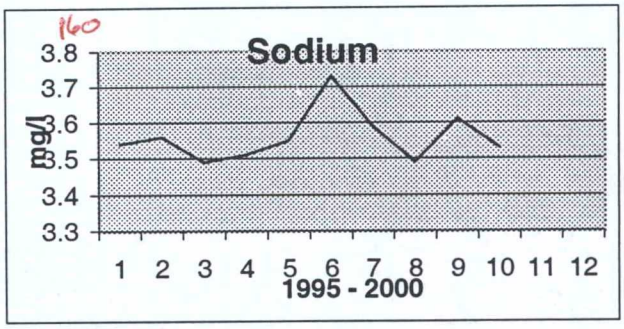
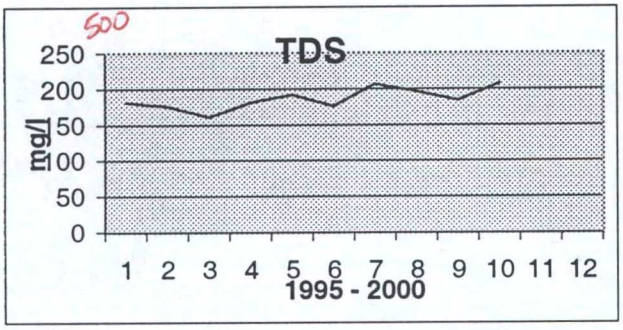
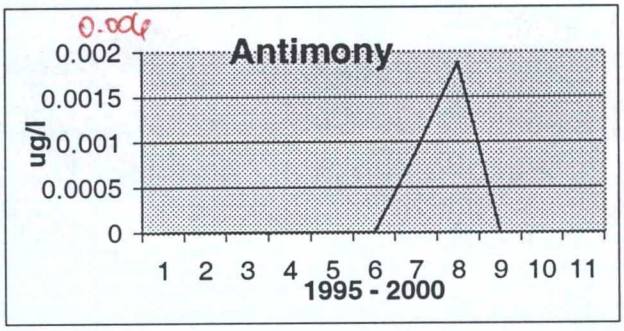



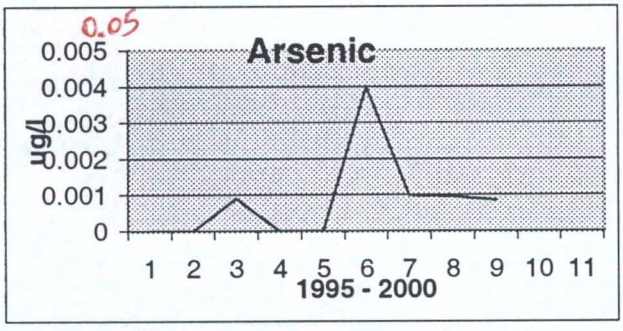
Figure 2-3
4MW8

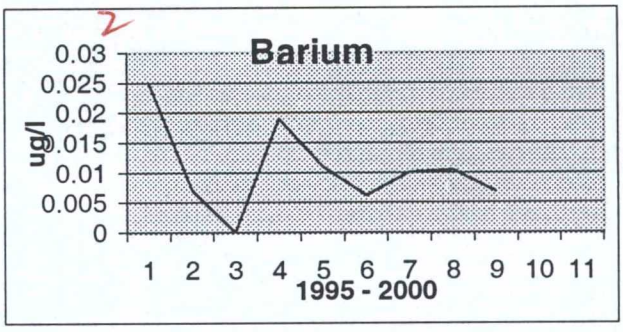


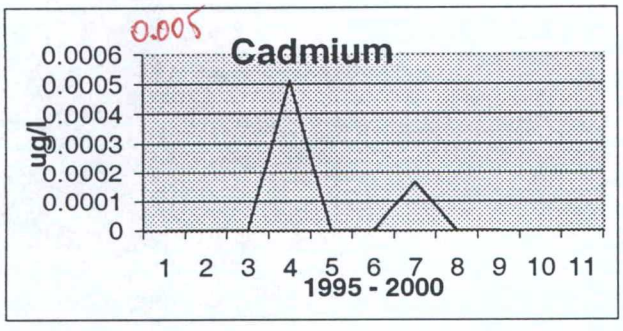



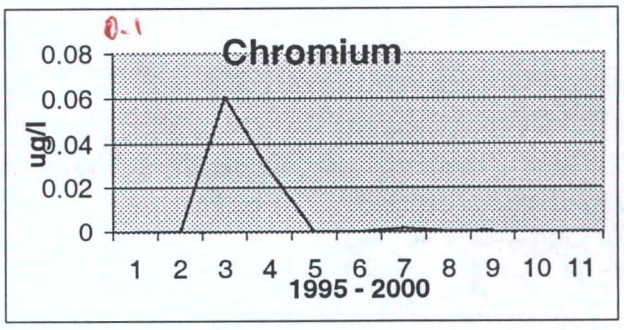
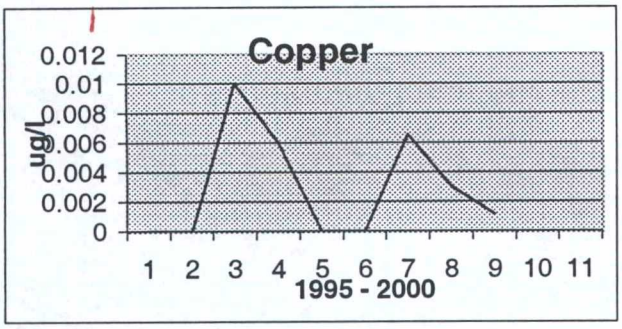
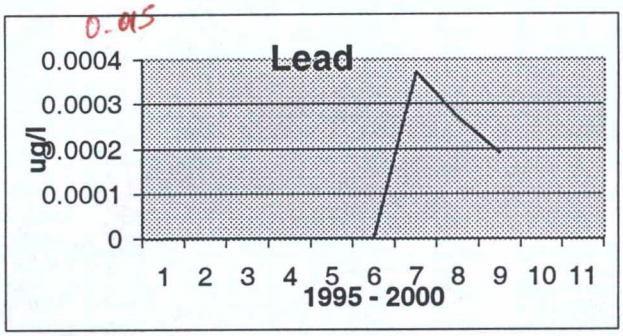
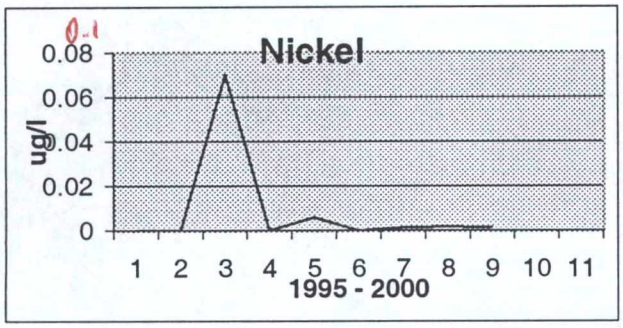
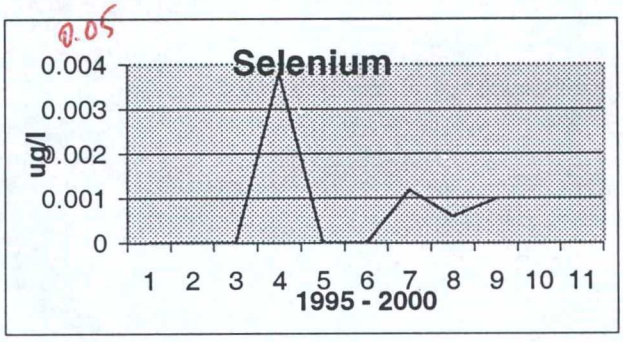



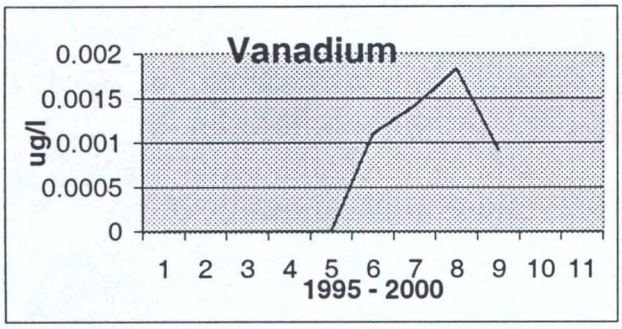
**Figure 2-3**
**4MW8**



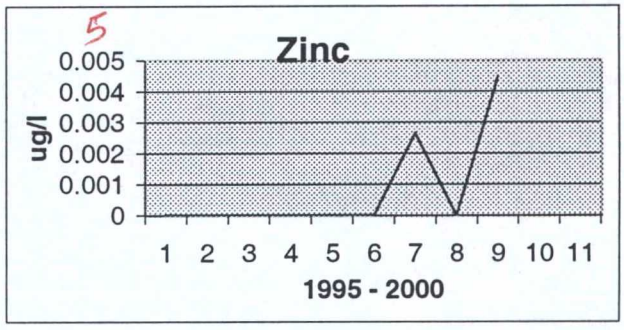
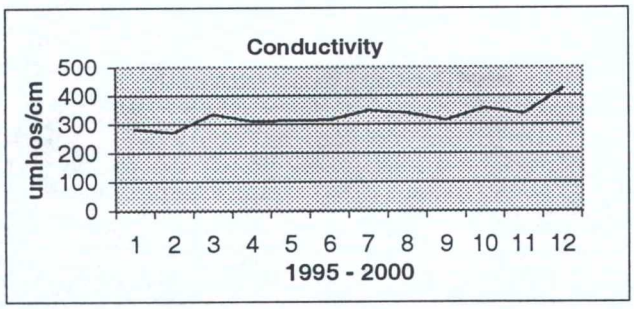
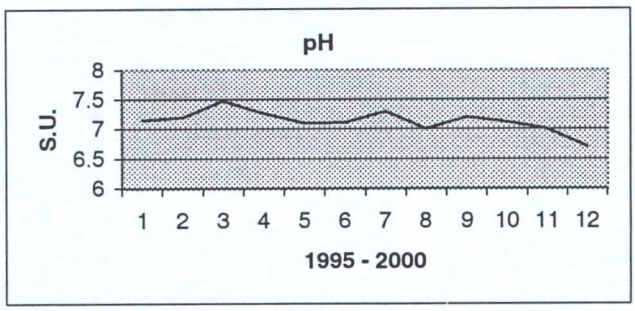
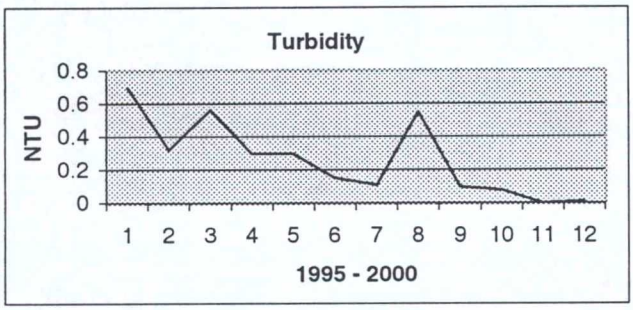
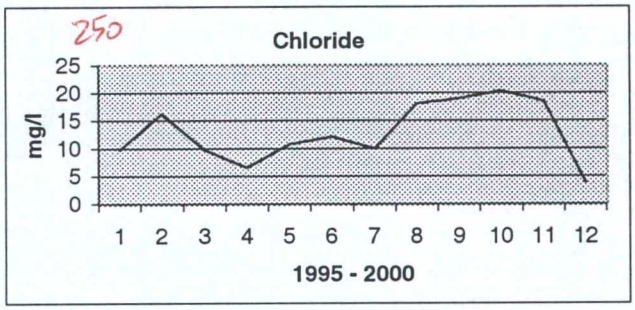



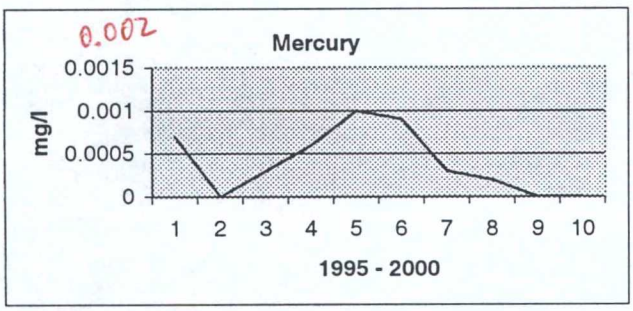
Figure 2-4
4MW9

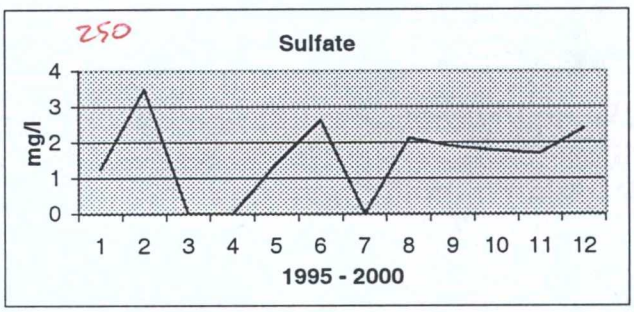


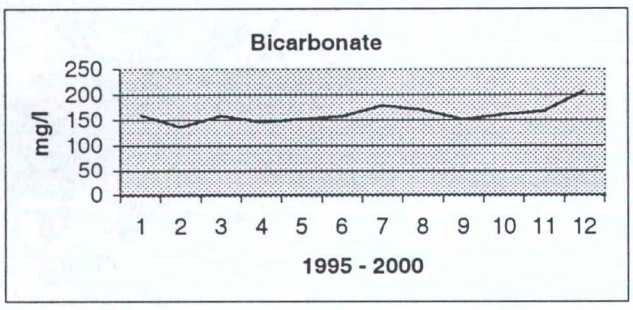



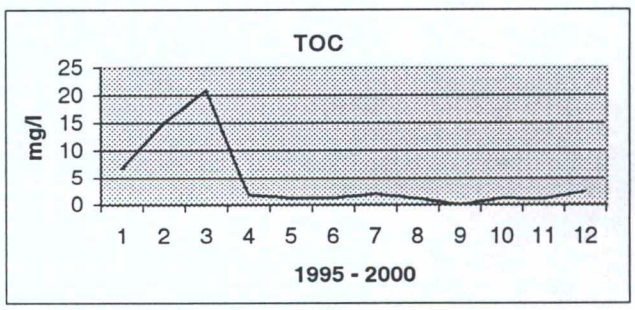
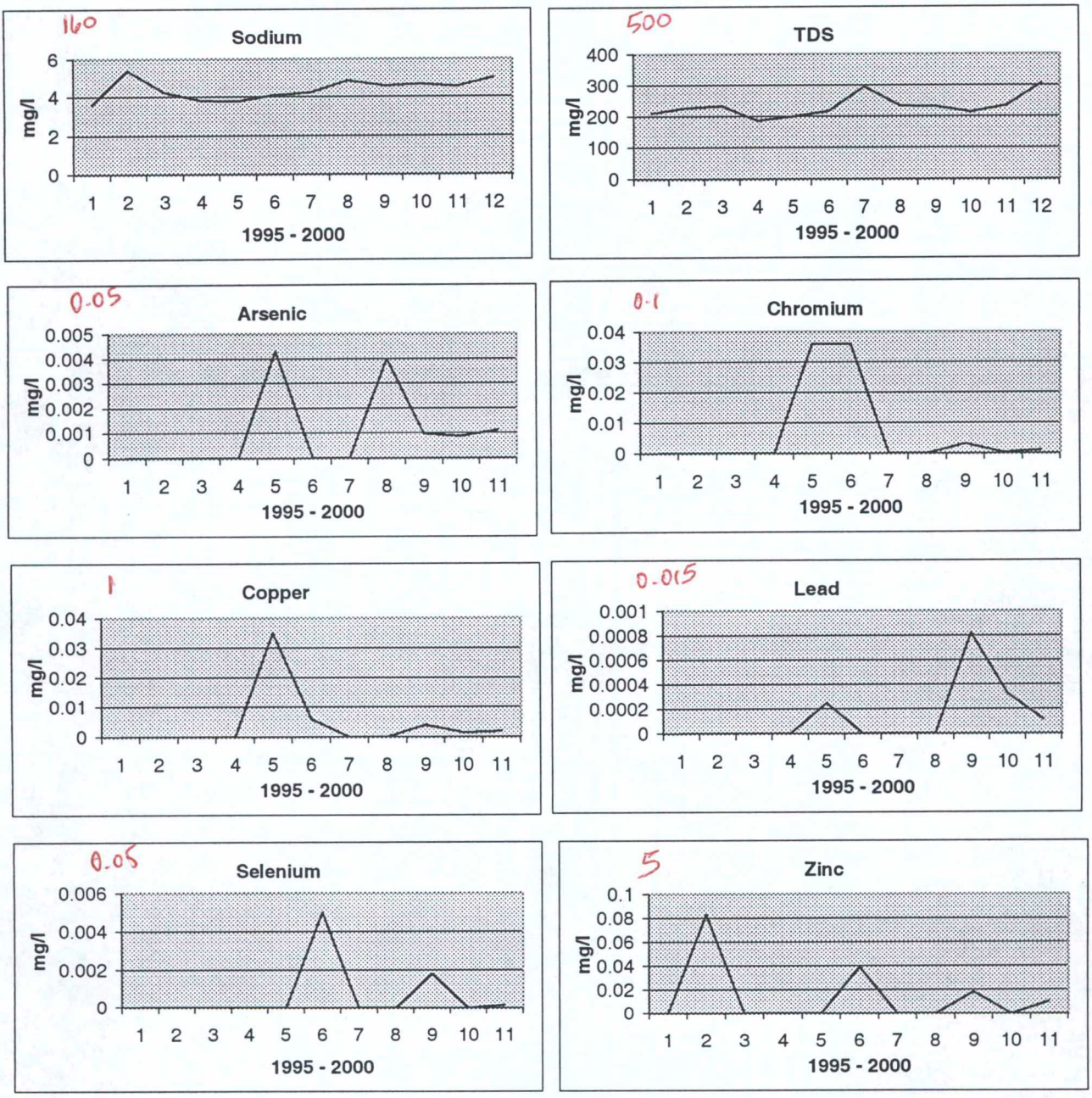
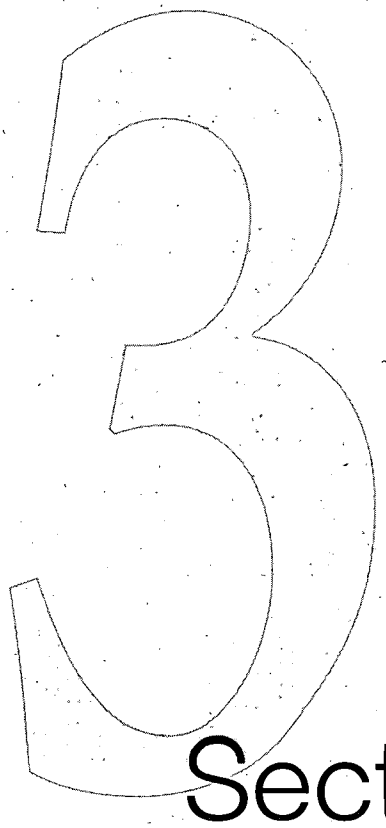



Figure 2-4
4MW9





# Section Three

# Section 3
# Groundwater Level Data

## 3.1 Data Tabulation

Table 3-1 presents tabular results of groundwater level data for the past three years.

## 3.2 Well Hydrographs

Figure 3-1 graphically presents the water table elevation at each of the 4 deep monitoring wells for the past three years. The surficial aquifer monitoring wells have remained consistently dry for the past 5 years.

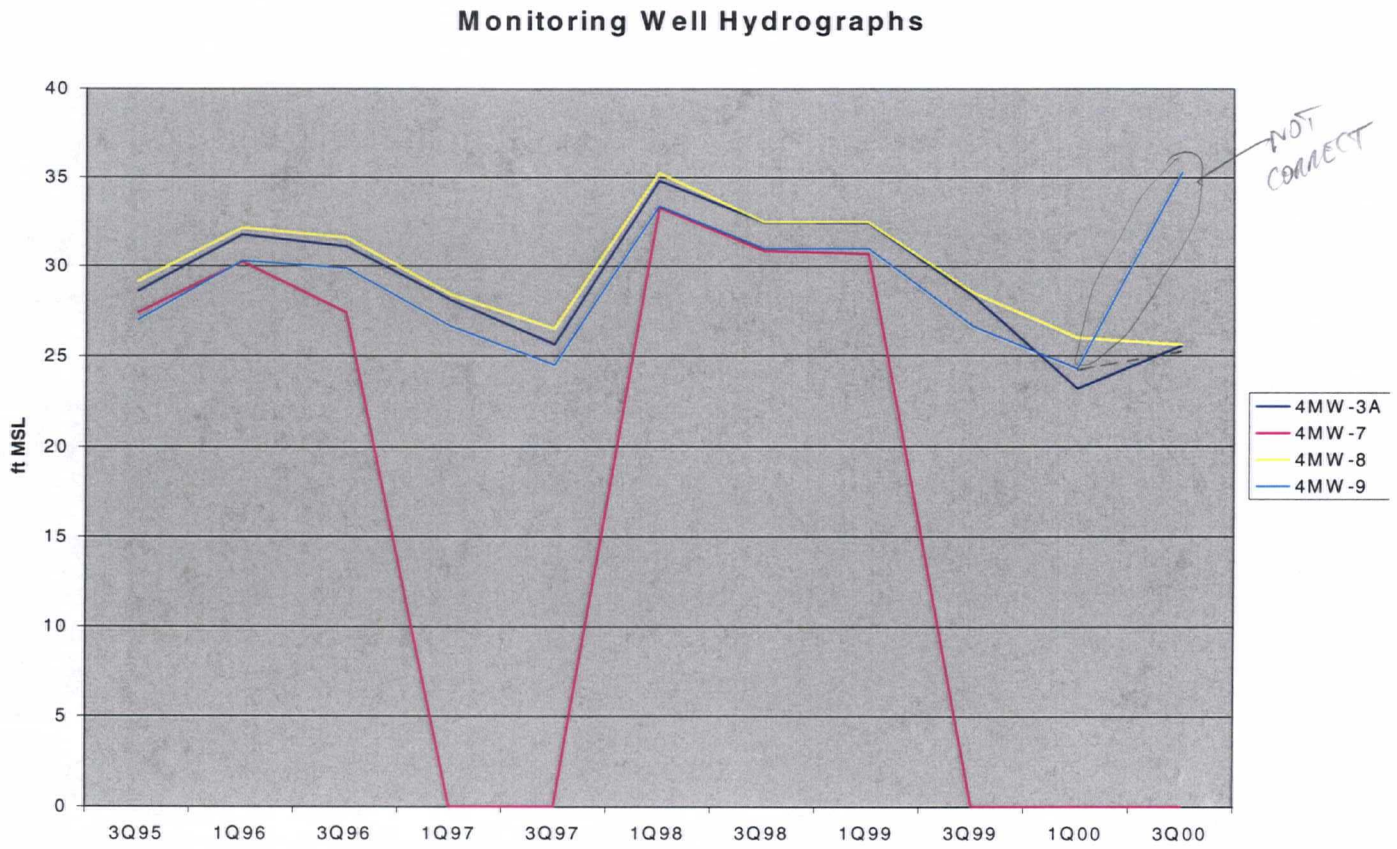



**Figure 3-1**

**Table 3-1**
**Groundwater Level (MSL)**

| | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4MW-3A | 28.6 | 31.75 | 31.1 | 28.1 | 25.6 | 34.8 | 32.45 | 32.42 | 28.3 | 23.15 | 25.54 |
| 4MW-7 | 27.38 | 30.23 | 27.38 | DRY | DRY | 33.28 | 30.83 | 30.68 | DRY | DRY | DRY |
| 4MW-8 | 29.15 | 32.15 | 31.6 | 28.4 | 26.5 | 35.25 | 32.5 | 32.48 | 28.52 | 26 | 25.6 |
| 4MW-9 | 26.98 | 30.28 | 29.88 | 26.63 | 24.48 | 33.38 | 30.98 | 30.98 | 26.6 | 24.23 | 35.3 |

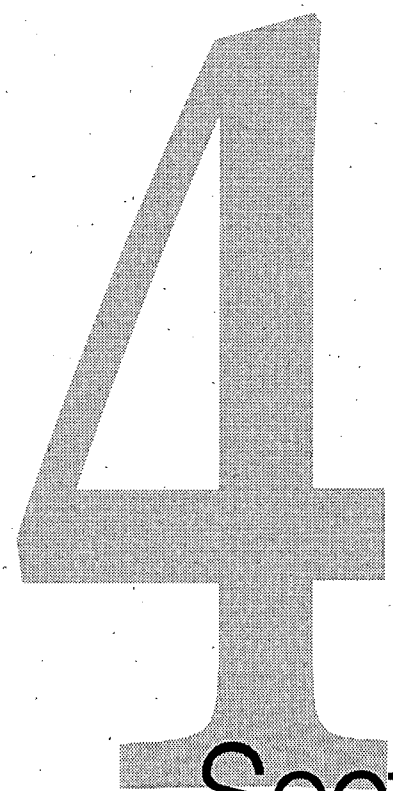
BUT CONTOUR MAP SHOWS 25.30

| | MIN | MAX | Δ |
|---|---|---|---|
| 4MW-3A | 23.15 Q1/00 | 34.8 Q1/98 | 11.65 |
| 4MW-7 | < ? | 33.28 Q1/98 | ? |
| 4MW-8 | 25.6 Q3/00 | 35.25 Q1/98 | 9.65 |
| 4MW-9 | 24.23 Q1/00 | 35.3 Q3/00 | 11.07 |

DOES NOT MAKE SENSE THAT HIGHEST ELEVATION @ 4MW-9/LOWEST ELEVATION @ 4MW-8 OCCURRED DURING Q3 2000

## 3.3 Summary/Interpretation

As illustrated in Figure 3-1, groundwater levels at the site have remained relatively constant. Monitoring Well #7 went dry in the 3rd quarter of 1999 and has remained dry since. Groundwater contour maps, which have been supplied to the Department on a quarterly basis, show that groundwater flows to the south/southwest. The groundwater flow is most likely being influenced by the consumptive use well serving the Resource Recovery Facility's cooling tower, located immediately south of the Class III facility.



# Section Four

# Section 4
# Summary

## 4.1 Sampling Locations

It is recommended that a new deep well be installed in the vicinity of 4MW7. Well No. 4MW7 serves as the downgradient well for the site, but has recently gone dry. A new well is needed to adequately monitor any groundwater effects resulting from operation of the landfill.

## 4.2 Sampling Frequency

The semi-annual sampling frequency should remain in effect.

## 4.3 Potable Well Survey

Figure 4-1 indicates the permitted consumptive use wells located within 5 miles of the site.

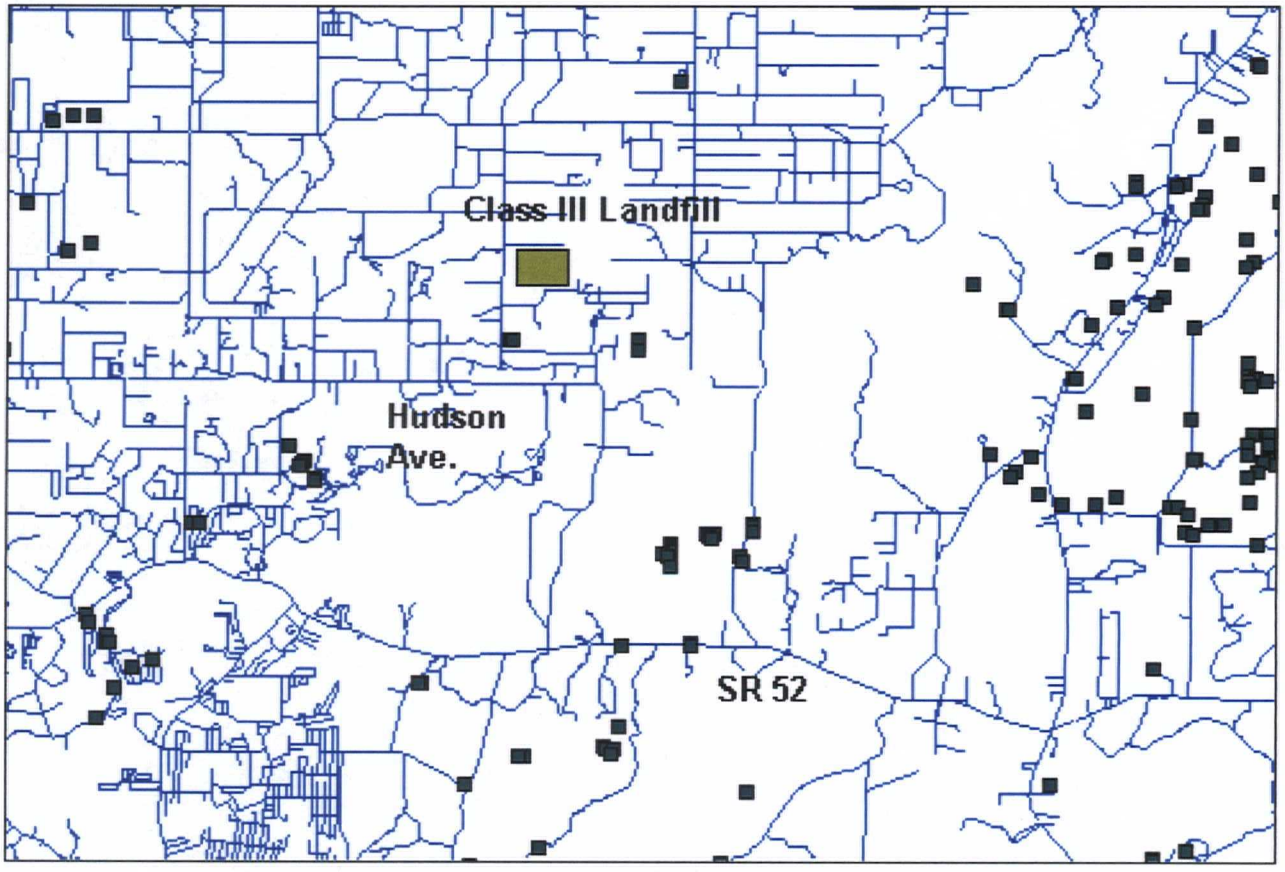



Figure 4-1

Permit File

# Memorandum

**Florida Department of Environmental Protection**

**TO:** Steve Morgan
**FROM:** John Morris, P.G. JRM
**DATE:** April 18, 2008
**SUBJECT:** West Pasco Class III Landfill, Operation Permit Application
Pending Permit No. 26254-001-SO, Pasco County
Hydrogeologic and Environmental Monitoring Review Comments (Responses to RAI #2)
**cc:** Susan Pelz, P.E.

---

I have reviewed portions of the materials submitted to the Department in support of the referenced operation permit renewal application for the West Pasco Class III Landfill, prepared by CDM on behalf of Pasco County Utilities, received October 8, 2007, November 6, 2007, December 28, 2007 and March 21, 2008. These materials were submitted in response to the Department's letter dated May 18, 2007 which requested additional information regarding the pending permit renewal application, and included the following:

- Document entitled "Response to FDEP's 2nd Request for Additional Information on West Pasco Class III Landfill, Operations Permit Renewal Application, Pending Permit #26254-001-SO/T3, Pasco County, Florida," dated October 2007, received October 8, 2007 including:
  - Letter prepared by CDM, dated October 5, 2007
  - Section 2 –" Response to John Morris Memorandum Dated May 17, 2007," prepared by CDM, dated October 5, 2007 **[referred to as the "CDM response"]**;

- Letter prepared by CDM dated November 5, 2007, received November 6, 2007, transmitting the locations and construction details of two deep monitor wells (Floridan aquifer), prepared by QORE Property Sciences, dated November 2, 2007

- Letter prepared by CDM dated and received December 28, 2007, describing the locations and construction details of two deep monitor wells (Floridan aquifer)

- Letter prepared by CDM dated March 20, 2008, received March 21, 2008, transmitting the following:
  - Document entitled "Water Quality Monitoring Plan for the West Pasco County Class III Landfill," prepared by CDM, dated March 2008 **[referred to as the "WQMP document"]**

Please note that it appears the proposed monitor well locations and construction details transmitted by the above-referenced CDM letters dated November 5, 2007 and December 28, 2007 have been wholly replaced by the information presented in the WQMP document. Accordingly, this memorandum does not provide review comments regarding the information transmitted by these two CDM letters but limited the review of proposed changes to the monitoring plan for the West Pasco Class III Landfill to the information provided by the WQMP document.

My review focused on the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application. Additional information is needed to evaluate the adequacy of the proposed revisions to the monitoring plan. Please have the applicant provide responses to all comments that do not contain the phrase: **"No additional information is requested."** Please have the applicant provide revised submittals, or replacement pages to the submittals, that use a ~~strike-through~~ and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised or replacement pages (text, figures, tables, appendices, site plans, etc.).

The review comment numbers presented below are consistent with my memoranda dated February 28, 2007 and May 17, 2007. To facilitate the review process, those comments that were fully addressed by previous submittals have been deleted from this memorandum. The information requests have been referenced to sections of the permit application form and sections of the supporting documents, where appropriate, as presented below:

**Part B – Disposal Facility General Information**

1. **B.13.:** The CDM response indicated that the property that includes the West Pasco Class III landfill is recorded as a disposal site in the County Land Records. **No additional information is requested.**

**Part I – Hydrogeological Investigation Requirements (Rule 62-701.410, F.A.C.)**

2. **I.1.a., through I.1.i., and I.2.:** The CDM response indicated that the best available copies of Sheet 1 (Aerial/Topographic Site Plan), Sheet 2 (Soil Profiles), and Plate 2 (USDA Vicinity map) of the document entitled "Summary Report, Geotechnical/Hydrogeological Investigation, Proposed Class III Sanitary Landfill, Hays Road Site, Pasco County, Florida," prepared by Jammal & Associates, Inc. ["Jammal report"], dated May 26, 1987 were provided. The CDM response also indicated that neither Pasco County nor CDM have additional copies of the Jammal report that provide legible copies of the above-referenced excerpts. Please submit a revised application form for item #I.1.f. [page 25 of 40] that references Section 2.0 of the WQMP document.

**Part M – Water Quality and Leachate Monitoring Requirements (Rule 62-701.510, F.A.C.)**

3. **M.1.:** The CDM response referred to the discussions between the County, CDM and the Department regarding the monitoring plan for the West Pasco Class III landfill during the meeting conducted on August 6, 2007. Based on subsequent conversations following receipt of the CDM letters dated November 5, 2007 and December 28, 2007, a replacement monitoring plan was developed for the facility (i.e., the WQMP document). As indicated in Section 1 of the WQMP document, it replaces the previously submitted monitoring plan information for the facility (document entitled "Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill " [WQMPE], prepared by MACTEC Engineering and Consulting, Inc., dated August 3, 2006, and the above-referenced Jammal report). Please submit a revised application form for items #M.1.a., through #M.1.h.(1) [pages 32/33 of 40] to reference the appropriate sections of the WQMP document, as follow:

M.1.a. – WQMP document, Section 1
M.1.b. – WQMP document, Section 4.1
M.1.c.(1) – WQMP document, Section 3.1
M.1.c.(2) – WQMP document, Section 3.1.1
M.1.c.(3) – WQMP document, Section 3.2
M.1.c.(4) – WQMP document, Table 3-1
M.1.c.(5) – WQMP document, Section 3.1
M.1.c.(6) – WQMP document, Section 3.1.3 and Table 3-1
M.1.c.(7) – WQMP document, Section 3.1
M.1.d.(1) – WQMP document, Section 3.3
M.1.e. – WQMP document, Section 3.2
M.1.f.(1) – WQMP document, Section 4.2
M.1.f.(2) – WQMP document, Section 4.3
M.1.f.(3) – WQMP document, Section 4.2
M.1.f.(4) – WQMP document, Section 4.4
M.1.g. – WQMP document, Sections 5.1 and 5.2
M.1.h.(1) – WQMP document, Section 4.5

Please note that the items in Part M of the application form not listed above remain unchanged, including:

M.1.c.(8) – N/A
M.1.d.(2) – N/A
M.1.h.(2) – document entitled "Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill," prepared by MACTEC Engineering and Consulting, Inc., dated August 3, 2006

6. **M.1.c.(1):** The discussion of detection well locations provided in Section 3.1 of the WQMP document was sufficient to meet the requirements of Rule 62-701.510(3)(a), F.A.C. **No additional information is requested.**

7. **M.1.c.(2):** The discussion of existing wells 2MW-8, 4MW-8 and 2MW-10 being designated as compliance wells provided in Section 3.1.1 of the WQMP document was sufficient to meet the requirements of Rule 62-701.510(3)(b), F.A.C. **No additional information is requested.**

8. **M.1.c.(5):** The discussion of well spacing provided in Section 3.1 of the WQMP document was sufficient to meet the requirements of Rule 62-701.510(3)(d)3, F.A.C. **No additional information is requested.**

9. **M.1.c.(6):** The discussion of well screen sections for the proposed monitor wells provided in Section 3.1.3 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(3)(d)4, F.A.C. Table 3-1 of the WQMP document provided the construction details of the existing monitor wells, however it appeared to be inconsistent with Table 1 entitled "Ground Water Monitor Well Construction Details, West Pasco Class III Landfill," provided as Appendix D of the "Response to FDEP February 28, 2007 Comments," prepared by CDM, dated April 2007. Please review the following inconsistencies and submit revisions to Table 3-1, as appropriate:

- Wells 4MW-3A, 4MW-8 and 4MW-9 were indicated to be completed as "open hole" in Table 1, while they were indicated to be "screened" in Table 3-1

In addition, the screen section elevation presented in Table 3-1 for well 4MW-3A does not appear to include the conversion between NAVD and NGVD. Based on the ground elevation and total depth provided in Table 3-1, it appears that the screen section elevation would be 28.54 to 0.54 ft NGVD. Please review the screen section elevation provided for well 4MW-3A and submit revisions, as appropriate.

10. **M.1.c.(7):** The discussion of well abandonment procedures provided in Section 3.1 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(3)(d)5, F.A.C. **No additional information is requested.**

13. **M.1.e.:** The discussion of leachate sampling provided in Section 3.2 of the WQMP document was sufficient to address the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C. **No additional information is requested.**

14. **M.1.f.(1):** The parameter lists referenced in Section 4.2 of the WQMP document were sufficient to address the requirements of Rule 62-701.510(6), F.A.C. **No additional information is requested.**

16. **M.1.g.:** The discussion of the criteria that require the initiation of evaluation monitoring, prevention measures, and corrective action provided in Sections 5.1 and 5.2 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(7), F.A.C. **No additional information is requested.**

17. **M.1.h.(1):** The discussion of data reporting provided in Section 4.5 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(9)(a), F.A.C. **No additional information is requested.**

18. **M.1.h.(2):** The following comments that refer to sections of the GWMPE:

Section 1.3.1 – Water Quality Monitoring Plan

b. The well construction details for the existing wells was provided in Table 3-1 of the WQMP document. **No additional information is requested.**

Section 1.3.2 – Leachate Monitoring Plan

d. Leachate sampling and analysis was discussed in Section 4.3 of the WQMP document. **No additional information is requested.**

Section 2.4.3 – Ground Water Gradient

f. Calculation of hydraulic gradient was presented in Section 6 of the WQMP document. **No additional information is requested.**

Section 2.4.4 – Ground Water Flow Velocity

g. Calculation of ground water velocity in the Floridan aquifer was presented in Section 6 of the WQMP document. **No additional information is requested.**

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information for further review.

I can be reached at (813) 632-7600, extension 336, to discuss these comments.

jrm

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
13051 N. Telecom Pkwy.
Temple Terrace, Florida 33637-0926

Colleen M. Castille
Secretary

DATE: SEPTEMBER 1, 2006 TIME: 1000

LOCATION/CONFERENCE ROOM: WCR

SUBJECT: W. PASCO CLASS III LANDFILL - PRE-APPLICATION MEETING FOR RENEWAL

ATTENDEES

| NAME | AFFILIATION | TELEPHONE NUMBER |
|---|---|---|
| JOHN MORRIS | DEP SOLID WASTE SECTION | 813-632-7600, EXT. 336 |
| Susan Gorrie | CDM | 813 281-2900 |
| John Power | PASCO Co. | 727.856-0119 |
| AAMOD SONAWANE | CDM | 813-281-2900 |
| Roger Evans | DEP-SW | 813-632-7600 |
| STEVE MORGAN | DEP-SW SECTION | (813) 632-7600 x385 |

JOHN POWER
JASON GORRIE
AAMOD SONAWANE } CDM

PASCO CO

SGM
RE
JRM

JRM NOTES
Pg 1/1

9/1/06

W. PASCO CLASS III – PRE-APP MEETING FOR OPS. RENEWAL

- REVISED FINANCIAL ASSURANCE COST ESTIMATES
- LEACHATE COLLECTION SYSTEM CLEANING/VIDEO
  - PROBABLY USE FLORIDA JET-CLEAN
  - WASTE IN CELLS 1/2 NOW
  - ADD PERMIT CONDITION THAT WILL CLEAN/VIDEO LOG IN CELL 3 PRIOR TO OPERATION

- APP FORM – PROHIBITIONS – IF PREVIOUSLY SUBMITTED CAN REFERENCE OR RESUBMIT
  - NEW TOPO.
  - CAN WRAP RENEWAL OF WASTE TIRE PROCESSING PERMIT INTO CLASS III RENEWAL SO WILL END UP W/ 1 PERMIT
    - LOOK AT OPS PLAN INFO FOR WASTE TIRE & WRAP IT INTO OPS PLAN FOR CLASS III ; LOOK AT DRAWINGS FOR WTPF & INCLUDE IN THE SITE PLANS FOR CLASS III LF RENEWAL

(OCT 4 9:00 Am)

WEST PASCO CLASS III

TO BE SUBMITTED BY OCT. 19

IN SECOND CELLS

NO CHANGES

NO GW MONITORING

FINANCIAL ASSURANCE

LEACHATE COLLECTION SYSTEM

JET CLEAN AND/OR INSPECTED

PRIOR CELL 3/4

5-YEAR > PERMIT

LEACHATE QUANTITY REPORT

MISSING 4th 2005 1ST 2006

## Morris, John R.

| | |
|---|---|
| **Subject:** | West Pasco Class III LF -- pre-application meeting |
| **Location:** | WCR |
| **Start:** | Fri 9/1/2006 10:00 AM |
| **End:** | Fri 9/1/2006 1:00 PM |
| **Recurrence:** | (none) |
| **Meeting Status:** | Meeting organizer |
| **Required Attendees:** | Morris, John R.; Morgan, Steve; Jason Gorrie (E-mail); John Power (E-mail) |
| **Optional Attendees:** | Pelz, Susan; Black, Anna; Evans, Roger |

Pre-application meeting for upcoming operation permit renewal requested by Jason Gorrie/CDM (813-281-2900). John Power/Pasco County (727-856-0119) will attend.

Jason, please send a copy of the agenda for this meeting by 8/28/06. Thanks.

*****

Anna, please reserve WCR. Thanks.

/ REVISED FINANCIAL ESTIMATES
/ LEACHATE COLLECTION SYSTEM CLEANING/ VIDEO INSPECTION
/ SEQUENCE OF FILL
/ O&S PLAN REVISIONS
/ GW MON PLAN ADEQUACY
/ LEACHATE QUANTITY VALUES

92303

# MACTEC

August 3, 2006

Dept. of Environmental Protection
AUG 04 2006
Southwest District

Mr. John Morris, P.E.
Southwest District
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, Florida 33637

Subject: **Water Quality Monitoring Plan Evaluation, 2004-2006**
**West Pasco Class III Landfill**
**Pasco County, Florida**
**MACTEC Project No. 6515-04-0147.05**

Dear Mr. Morris:

Enclosed, please find two copies of the Water Quality Monitoring Plan Evaluation for the West Pasco Class III Landfill prepared by MACTEC Engineering and Consulting, Inc. This report documents analytical testing completed by Pasco County at this facility during the period of 2004 through first quarter of 2006.

If you have any questions, please contact the undersigned at (813) 289-0750 at your convenience.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, INC.**

Rama Krishna Ruttala
Project Scientist

Curtis J. Roos, P.E.
Chief Engineer
Florida Registration No. 27570

CURTIS JAMES ROOS LICENSE NO. 27570 STATE OF FLORIDA PROFESSIONAL ENGINEER

Enclosures

cc: Candia E. Mulhern, Pasco County Environmental Laboratory
John Power, Pasco County Resource Recovery

*P:\ENVIRO\2004\Projects\6515-04-0147 Pasco Resource Recovery West Pasco Class III 04-05\West Pasco Landfill Final Report cover 08-06.doc*

2 COPIES

PUNCH BOUND REPORT
FILED SEPARATELY
(TITLE PAGE ATTACHED)

MACTEC Engineering and Consulting, Inc.
4919 West Laurel Street • Tampa, FL 33607
813-289-0750 • Fax: 813-289-5474

92303
(GWR)
FILE COPY

# WATER QUALITY MONITORING PLAN EVALUATION
# 2004-2006
# WEST PASCO CLASS III LANDFILL

Prepared for:

**PASCO COUNTY BOARD OF COUNTY COMMISSIONERS**

Prepared by:

**MACTEC ENGINEERING AND CONSULTING, INC.**
**4919 West Laurel Street**
**Tampa, Florida 33607**

**August 3, 2006**

**MACTEC Project 6515-04-0147.05**

MACTEC

## Morris, John R.

**From:** Morris, John R.
**Sent:** Tuesday, July 25, 2006 5:15 PM
**To:** 'Ruttala, Rama'
**Cc:** John Power (E-mail); Pelz, Susan
**Subject:** RE: West Pasco Landfill Class III- Biannual report

Rama:

Specific Condition # 37 of permit #26255-001-SO for West Pasco Class III landfill follows:

37. **Water Quality Monitoring Plan Evaluation. By March 15, 2004 and no later than September 15, 2006**, the permittee shall submit an evaluation of the water quality monitoring data. The periods of time to be covered by the evaluations are summarized below:

| Water Quality Monitoring Data Evaluation Due Date | Starting Sampling Event | Ending Sampling Event |
|---|---|---|
| **March 15, 2004** | First Half 2001 | Second Half 2003 |
| **September 15, 2006** | First Half 2004 | First Half 2006 |

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of ground water contamination. Any ground water contamination that may be reported shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C.

I commented to John Power that the Monitoring Plan Evaluation report dated July 10, 2006, received July 11, 2006, did not include the results of the sampling event conducted during the first half of 2006, as required by the referenced permit condition. I also indicated to John Power that the Monitoring Plan Evaluation report due on September 15, 2006 is intended to be submitted as part of the permit renewal application, and as such it is appropriate to revise the Monitoring Plan Evaluation report to include the results of the March 2006 sampling event.

Please contact me if you have questions about this message.

John

**********

*Our new office is located at 13051 N. Telecom Pkwy., Temple Terrace, FL 33637-0926.*

John R. Morris, P.G., FDEP SW District Office, Solid Waste Section
Telephone: 813-632-7600, ext. 336; suncom 514-9155, ext. 336
Facsimile: 813-632-7664; E-mail: john.r.morris@dep.state.fl.us

-----Original Message-----
**From:** Ruttala, Rama [mailto:RKRUTTALA@mactec.com]
**Sent:** Tuesday, July 25, 2006 2:40 PM
**To:** Morris, John R.
**Subject:** West Pasco Landfill Class III- Biannual report

Mr. John Morris

We were informed by Mr. John Power of you mentioning about the missing West Pasco Class III landfill groundwater and leachate data for first quarter, 2006 which was sampled for ground water on March 1, 2006. We have included in the report submitted to you on July 10, 2006, the analytical data for groundwater and leachate from first quarter 2004 through last quarter 2005. Please let me know your suggestions to fix the discrepancy, so that we can work and resubmit it ASAP.

Thanking you

Rama

***Rama Krishna Ruttala***

***Project Scientist***

***MACTEC Engineering and Consulting, Inc.***

***4919 West Laurel Street***

***Tampa, Florida - 33607***

***813-289-0750***

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

4/1/06

# REGULATORY DISTRICT ROUTING SLIP

TO: Susan Pelz DATE: 3/22/06

CC:

| | | | |
|---|---|---|---|
| | **PENSACOLA** | NORTHWEST DISTRICT | |
| | **Panama City** | Northwest District Branch Office | |
| | **Tallahassee** | Northwest District Branch Office | |
| X | **TAMPA** | SOUTHWEST DISTRICT OFFICE | |
| | **Punta Gorda** | Southwest District Branch Office | |
| | **Bartow** | Southwest District Branch Office | |
| | **ORLANDO** | CENTRAL DISTRICT OFFICE | |
| | **JACKSONVILLE** | NORTHEAST DISTRICT OFFICE | |
| | **Gainesville** | Northeast District Branch Office | |
| | **FORT MYERS** | SOUTH DISTRICT OFFICE | |
| | **Marathon** | South District Branch Office | |
| | **WEST PALM BEACH** | SOUTHEAST DISTRICT OFFICE | |
| | **Port St. Lucie** | Southeast District Branch Office | |

Reply Optional by _____ Reply Required by _____ Info Only _____

COMMENTS:

FYI

DEP
MAR 29 2006
SOUTHWEST DISTRICT

FROM: Sara Madd PHONE 245-8756

05-01-01

Pasco Co
West Pasco WTPF

# Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Jeb Bush
Governor

Colleen M. Castille
Secretary

March 22, 2006

DEP
MAR 29 2006
SOUTHWEST DISTRICT

Farouk El-Shamy, Ph.D.
Environmental/Hazardous Manager
Utilities Fiscal and Business Services Dept.
Public Works/Utility Building
7530 Little Road, S-204
New Port Richey, FL 34654

Dear Mr. El-Shamy:

Thank you for expressing your willingness to cooperate with the Department of Environmental Protection (DEP) in a program to remove waste tire piles in your county. We hope that our joint efforts will use the combined strengths of our governments and private sector contractors to accelerate tire pile removal in all the counties affected by the medical alert for West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE).

The Supplemental Waste Tire Program outlined in the recent letter from our Program Administrator offers the Department's assistance to use and pay its contractors to transport, process and properly use or dispose of tires collected in your county under this program. Based on our telephone conversations and your recent letter (enclosed) suggesting responsibilities vis a vis Pasco County and the Department, we are in basic agreement on the terms and conditions of our joint effort. We've listed below some things that we will need from your County in order to make this a safe, economical and successful program:

1. A written request from your County stating that you wish to participate in a cooperative effort with DEP in the Supplemental Waste Tire Program. You should state that you have exhausted or committed your available funds for tire removal and need the State's assistance in removing additional waste tires from your County due to medical alert conditions. If you have some funds still available, please state that you will commit these funds to this effort. This letter needs to be signed by someone authorized to commit funds and personnel to this program.

2. A list of five or six dates we can choose from to have the trailer delivered. Our contractor has advised us that he cannot service this program during the first two weeks of April, as his facility will be down and undergoing scheduled maintenance during that time.

3. A secure location where a 45' to 48' over-the-road trailer can be staged and loaded with accumulated tires. The staging area must be paved or suitably stabilized and must allow ready access by the vehicle servicing the site. The County should be aware that the contractors may seek to charge the County for costs incurred if the staging area is not stabilized, or for any damage to the trailer that may occur as a result of actions or negligence on the part of the County's personnel or designees.

4. We will need permission from the property owner, preferably in the form of a signed access agreement to access and load trailers on the location. The access agreement we use is enclosed for your convenience.

5. The trailers must be loaded by County personnel or designees. The County will retain liability for any personal injury or loss suffered by County personnel or designees, unless the injury or loss is the result of negligence on the part of the contractor or the Department.

6. The County should not accept deliveries of more than 25 tires, and then only from citizens who are not in the waste tire business. One of our main concerns is that people who are in the business of collecting and disposing of waste tires will try to use this program as a method of free disposal. If this is allowed to happen, it will defeat the purpose by using up our funding much too rapidly and we will be unable to continue to help the counties who really need help. Please make every effort to identify the participants in this program as people who need the help and are not in the business of tire recycling or disposal. Please keep a log with the participant's name and address, vehicle tag number, and the approximate quantity of tires delivered to the site. A sample log is enclosed.

7. We agree to transport and process tires from your planned amnesty collection at our cost, but because of contractor budget limitations, we can only agree to take up to a maximum of 600 tons of tires. None of these tires may be from your regular collection program or from commercial accounts.

8. Any type of waste tires may be loaded into the trailer, including tires with rims, with the following exceptions: the tires cannot exceed 54" in height and 17" in width; the tires must be free of dirt, grease or hazardous waste; and no foam filled, solid rubber, cut, sectioned, or baled tires can be loaded. In the event that larger tires or tires that are contaminated, dirty, solid, or baled are put into any of our contractors' trailers, we will seek to charge the County for extra costs incurred in disposing of these tires.

9. Our contractor uses open top, walking floor trailers exclusively. Trailers will need to be top loaded by front end loader. The County will be in frequent communication with the contractor to coordinate trailer delivery and assure adequate equipment is available for loading. Loading time will need to be within two hours of trailer arrival.

10. The tires must be sprayed or fumigated before leaving the county to prevent the transportation of live mosquitoes that may carry disease to other areas of the state.

Once we have received your written request, we will consult with you and our contractor on a start date for your program. Once a date is established, you can start advertising the cleanup event in your area.

If you have any questions, or need additional information please call me at (850) 245-8744, and I will try to answer all your questions.

Sincerely,

Sandi Maddi

Sandi Maddi
Project Manager

SMM
Enclosures (3)

Cc: Phil Tuohy, Ridge Generating Station
Jan Rae Clark, DEP
Richard Tedder, DEP

SOLID WASTE
SECTION
MAR 0 3 2006

# PASCO COUNTY, FLORIDA

DADE CITY (352) 521-4274
LAND O' LAKES (813) 996-7341
NEW PORT RICHEY (727) 847-8041
FAX NUMBER (727) 847-8064

UTILITIES FISCAL AND
BUSINESS SERVICES DEPT.
PUBLIC WORKS/UTILITIES BLDG.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

February 28, 2006

Ms. Sandi Maddi
Environmental Specialist
Solid Waste Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Dear Ms. Maddi:

I have discussed your latest offer regarding our proposal to hold a waste tire amnesty event in Pasco County with the Department Director, Mr. Robert Sigmond. We have tentatively agreed with your last verbal proposal to hold a one-week (6 days) waste tire amnesty event as soon as possible based on the following understanding:

1. Pasco County staff will promote the event by submitting ads, distributing flyers, posting signs at our three scale houses, working with Code Enforcement and Mosquito Control, and also advertising via our local cable TV network (Government channel).

2. Pasco County Staff will provide labor for traffic control as well as manage the scale house.

3. Pasco County staff will compile statistics on the waste tires collected throughout the event.

4. We will collect all waste tires received from households at our waste tire collection center located at 14230 Hays Road, Springhill, Fl 34610.

5. County staff will load all tires (whole tires with or without rims) on to your contractor's (s) trucks.

6. Florida DEP will provide the contractor (s) and trucks to haul away all tires collected throughout the event while the event is ongoing and remove said tires after the event as soon as possible.

SOLID WASTE
SECTION
MAR 0 3 2006

7. There will be no limits placed on the number of tires each resident may bring to our collection center unless you indicate otherwise in writing.

8. Residents will be required to show proof of residency. Florida DEP will pay for all the tires collected to be hauled away at no cost to Pasco County whatsoever. This includes contractor (s) costs, trucks and transportation costs, processing costs, or any other costs associated with the removal of waste tires from our center to a DEP specified site. Once the tires leave our center , FDEP becomes the sole owner of these tires.

9. Pasco County Government's responsibility ends when DEP contractor(s) trucks leave our collection center.

Please submit an agreement as soon as possible so that we may preset the proposal for the Pasco County Board of County Commissioners consideration.

Thank you for understanding.

Sincerely,

Farouk El-Shamy, Ph.D.
Environmental/Hazardous Manager 727-847-8041 8718

FES/scf

Cc: Bruce E. Kennedy, P.E. Assisstant County Administrator (Utilities Services)
Robert J. Sigmond, Utilities Fiscal and Business Services Director

Department of
Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

# SPECIAL AUTHORIZATION TO ENTER PROPERTY FOR REMEDIATION ACTIONS

1. The undersigned _____, hereby authorizes the State of Florida Department of Environmental Protection (Department) and its agents and contractors to enter the undersigned's property located at:

2. This authorization is specifically limited to the management and investigative activities at the site necessary to stabilize and abate the waste tires and assess any environmental impact caused by the waste tires, including spraying for mosquito control. These activities may be performed by the Department, its agents or contractors.

3. The granting of this authorization by the undersigned is not intended, nor should it be construed, as an admission of liability on the part of the undersigned or the undersigned successors and assigns. However, the undersigned grants this authorization with the understanding that the Department is required, under the provisions of Section 403.709(4) Florida Statutes, to seek recovery of costs from the site owner or the person responsible for the accumulation of tires at the site, jointly and severally, for the site stabilization and tire abatement activities conducted at the site by the Department, its agents, or contractors, except when the Department finds that the amount involved is too small or the likelihood of recovery too uncertain. During the present Medical Alert caused by mosquito-carried viruses, the Department will decline to pursue cost recovery under the following conditions:

   a. Once the waste tires at this location have been removed, the owner and/or operator agrees to take all necessary steps to assure that no waste tires are stored or disposed of at this location except as may be authorized under Chapter 62-711, Florida Administrative Code.

   b. If the provisions of paragraph (a) above are not complied with and waste tires are illegally deposited at this location, requiring Department action to abate this site, the Department or its agents will actively seek cost recovery for both the current and future abatement to the extent allowed by law, and may refer the case to the appropriate law enforcement officials to file criminal charges under the Florida Litter Law for commercial dumping.

4. The Department, its agents or contractors may enter the property during normal business hours and may also make special arrangements to enter the property the property at other times after agreements from the undersigned.

5. The undersigned shall not be liable for injury, damage or loss on the property suffered by the Department, its agents or employees not caused by the negligence or intentional acts of the undersigned's agents or employees.

6. the Department acknowledges and accepts its responsibilities under applicable law (Section 768.28 Florida Statutes) for damages caused by the acts of its employees while on the property.

_____
Owner

_____
Date

State of Florida
County of _____

Sworn to and subscribed to me this _____day of _____, 2006.

_____ _____
Notary Public Date Commission Expires

Accepted by the State of Florida Department of Environmental Protection by the following authorized agent:

_____ _____
Name and Title Date

FILED AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Clerk, receipt of which is hereby acknowledged.

_____ _____
Clerk Date

CERTIFICATION OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Special Authorization to Enter Property for Remediation Actions and all copies were mailed before the close of business on _____ to the listed persons.

_____ _____
Name Date

# COUNTY AMNESTY PARTICIPANTS LOG SHEET FOR _____ COUNTY

## _____ DATE

| NAME | COMPANY NAME | ADDRESS | PHONE NUMBER | VEHICLE TAG # | # OF TIRES |
|---|---|---|---|---|---|
| | | | | | |
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# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

**PERMITTEE**
Pasco County Board of
County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

LAT 28°22'22"
Long 82°34'06"

**PERMIT/CERTIFICATION**
WACS Facility ID No: SWD/51/45920
Permit No: 26255-001-SO
Date of Issue:
Expiration Date:
County: Pasco
Lat/Long: 28°22'~~05~~22"N
82°~~33'30"~~34'06"W
Sec/Town/Rge: 25 & 26/24S/17E
Project: West Pasco
Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 20 acres), referred to as the West Pasco Class III Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste, located at 14606 Hays Road, 3 miles north of County Road 52, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of:

1. Class III Landfill Disposal Facility

Replaces Permit No.: SO51-267334

**General Information:**
**Maximum Elevation = MSL +79 feet**
**Disposal Acreage: 14.0 acres; Closed: 0.0 acres; Open: 7.0 acres**
**Bottom Liner: Single, 60 mil HDPE**
**Leachate Collection System: Primary LCRS piping**

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.



*Printed on recycled paper.*

perMits | Events | Payment | Site | Facility | cpartY | Reports | >

Permitting Application

SITE Permit

Site Name: PASCO CO. RESOURCE RECOVERY CLASS I LF (LF1) Site #: 0026255

County: PASCO Comments: N RPAs: N # Cases: 0

Project

Permit #: - - Project #:001 Received: **22-FEB-2001** CRA#:86777

Permit Office: SWD (DISTRICT) Agency Action: Pending

Project Name: **WEST PASCO CLASS III LANDFILL** Desc:

Type/Sub/Des: **SO /T3 SANI. LANDFILL CLASS III** COE #:

Logged: 26-FEB-2001 Issued: Expires: OGC:

JFee: **4000.00** Fee Recd: 4000.00 Dele: Override: **NONE**

Related Party

Role: APPLICANT Begin: 26-FEB-2001 End:

Name: MANNELLA, VINCE Company: PASCO COUNTY UTILITIES DEPT

Addr: 7530 LITTLE ROAD

City: NEW PORT RICHEY State: FL Zip: 34654- Country: U.S.A.

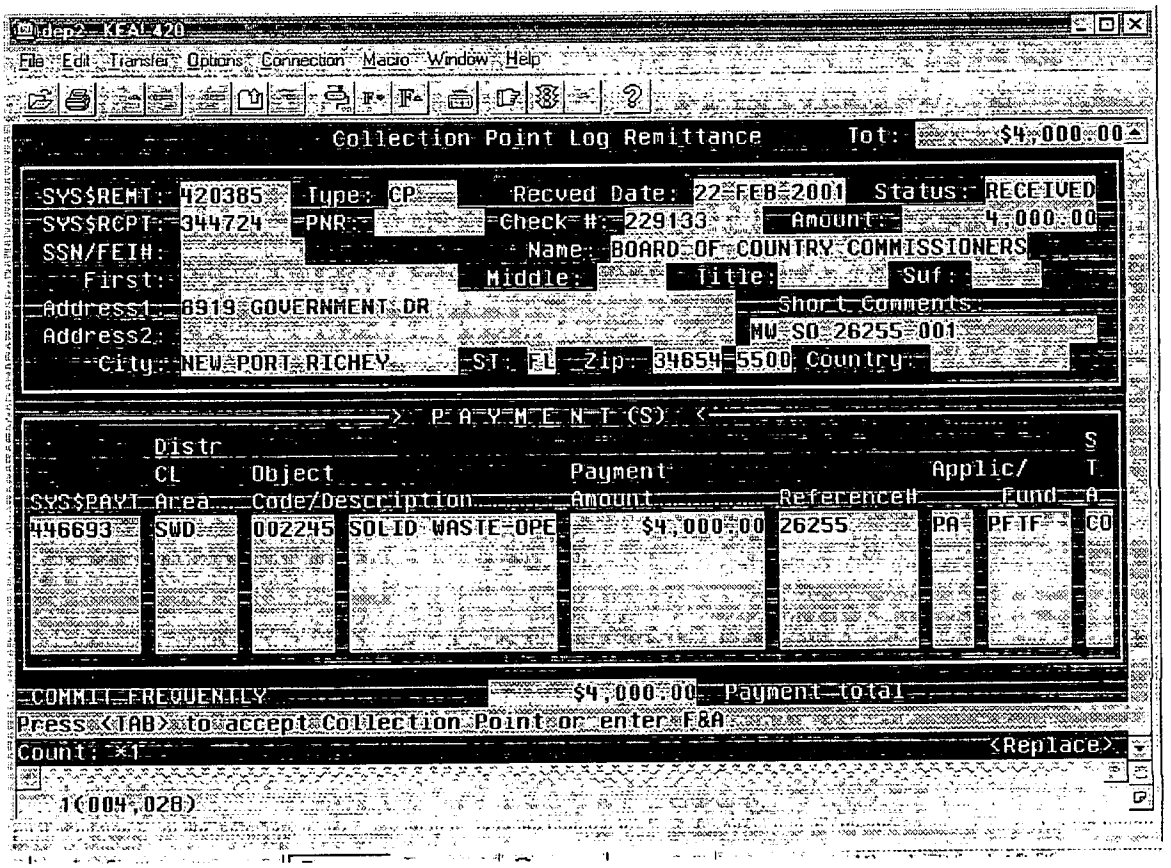
Phone: 727-856-0119 Fax:

Processors

Processor: FORD_K Y Active: 26-FEB-2001 Inactive:

Enter date application was received. DD-MON-YYYY

Count: *1 <Replace>


dep2 - KEAL420
File Edit Transfer Options Connection Macro Window Help
Collection Point Log Remittance
Tot: $4,000.00
SYS$REMT: 420385 Type: CP Recved Date: 22-FEB-2001 Status: RECEIVED
SYS$RCPT: 344724 PNR: Check #: 229133 Amount: 4,000.00
SSN/FEI#: Name: BOARD OF COUNTRY COMMISSIONERS
First: Middle: Title: Suf:
Address1: 8919 GOVERNMENT DR
Address2:
City: NEW PORT RICHEY ST: FL Zip: 34654-5500 Country:
Short Comments:
MW SO 26255 001
PAYMENT(S)
SYS$PAYT Distr CL Area Object Code/Description Payment Amount Reference# Applic/ Fund PA PFTF CO S T A
446693 SWD 002245 SOLID WASTE OPE $4,000.00 26255
COMMIT FREQUENTLY
$4,000.00 Payment total
Press <TAB> to accept Collection Point or enter F&A
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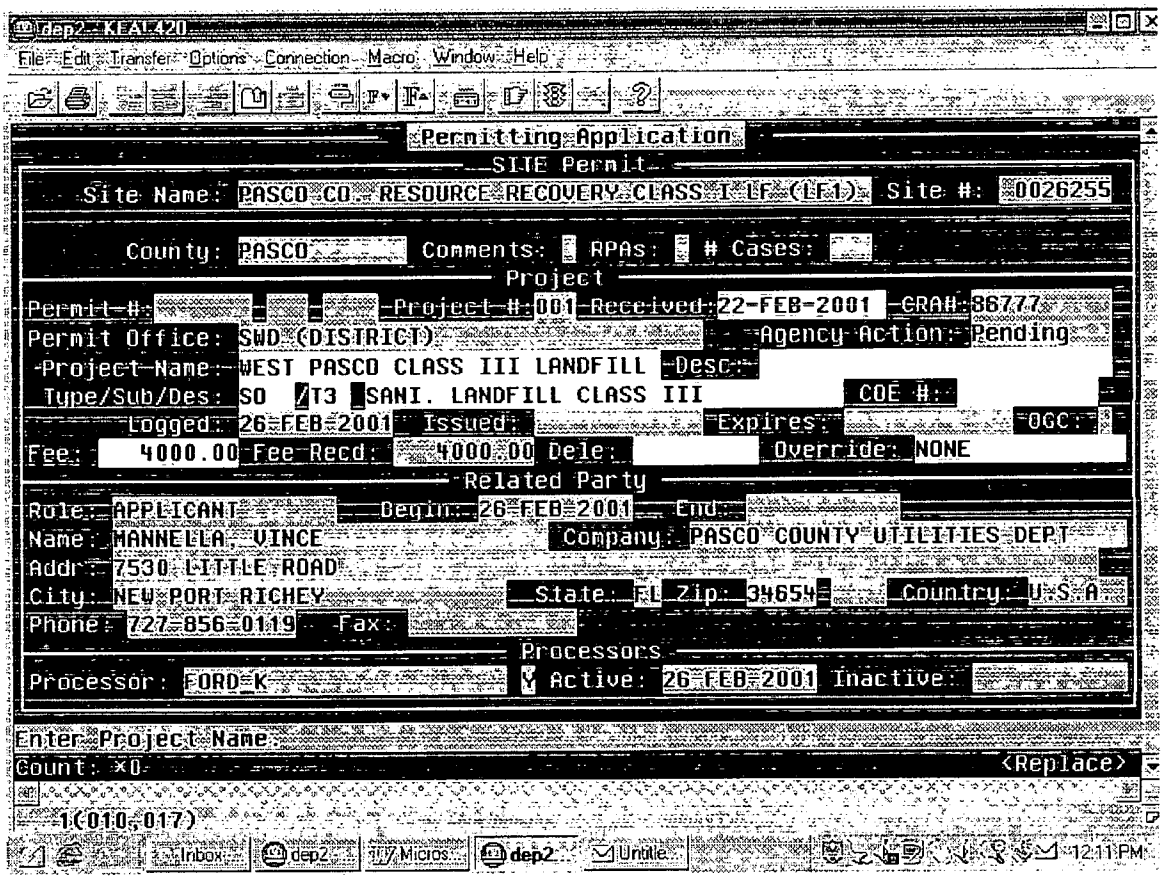
dep2 - KEAL420
File Edit Transfer Options Connection Macro Window Help
Permitting Application
SITE Permit
Site Name: PASCO CO. RESOURCE RECOVERY CLASS I LF (LF1) Site #: 0026255
County: PASCO Comments: RPAs: # Cases:
Project
Permit #: - - Project #: 001 Received: 22-FEB-2001 GRA#: 86777
Permit Office: SWD (DISTRICT) Agency Action: Pending
Project Name: WEST PASCO CLASS III LANDFILL Desc:
Type/Sub/Des: SO T3 SANI. LANDFILL CLASS III COE #:
Logged: 26-FEB-2001 Issued: Expires: OGC:
Fee: 4000.00 Fee Recd: 4000.00 Dele: Override: NONE
Related Party
Role: APPLICANT Begin: 26-FEB-2001 End:
Name: MANNELLA VINCE Company: PASCO COUNTY UTILITIES DEPT
Addr: 7530 LITTLE ROAD
City: NEW PORT RICHEY State: FL Zip: 34654 Country: U.S.A.
Phone: 727-856-0119 Fax:
Processors
Processor: FORD K Active: 26-FEB-2001 Inactive:
Enter Project Name
Count: x0
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# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

April 20, 2006

RECEIVED
APR 25 2005
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

Mr. John Power
West Pasco County Class III
14230 Hays Road
Spring Hill, FL 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2006.** The receipt number for the registration fee you paid is 495953.

You must comply with the following requirements in order to maintain qualification for the registration program:

1. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years.

2. An Annual Report for a Yard Trash Processing Facility, DEP Form 62-709.320 (7)(b), shall be submitted by April 1 of each year.

3. A registration renewal, DEP Form 62-709.320(7)(a), shall be submitted by April 1 of each year to renew this registration.

4. The facility shall be operated in accordance with Rules 62-709.320(3) and (4), Florida Administrative Code (F.A.C.). A summary of these requirements is enclosed.

If you need further information, please contact Francine Joyal at the above address, Mail Station 4565, telephone 850/245-8747, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosure

cc: Susan Pelz, Southwest District

W Pasco CIII permit File

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

April 19, 2004

Mr. John Power
West Pasco County Class III
14230 Hays Road
Spring Hill, FL 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2005**. The receipt number for the registration fee you paid is 453664.

You must comply with the following requirements in order to maintain qualification for the registration program:

1. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years.

2. An Annual Report for a Yard Trash Processing Facility, DEP Form 62-709.320 (7)(b), shall be submitted by April 1 of each year.

3. A registration renewal, DEP Form 62-709.320(7)(a), shall be submitted by April 1 of each year to renew this registration.

4. The facility shall be operated in accordance with Rules 62-709.320(3) and (4), Florida Administrative Code (F.A.C.). A summary of these requirements is enclosed.

If you need further information, please contact Francine Joyal at the above address, Mail Station 4565, telephone 850/245-8747, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosure

cc: Susan Pelz, Southwest District

permit

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

April 14, 2006

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 19 2006
SOUTHWEST DISTRICT
TAMPA

Mr. John Power
West Pasco County Class III
14230 Hays Road
Spring Hill, FL 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2007**. The receipt number for the registration fee you paid is 537490.

You must comply with the following requirements in order to maintain qualification for the registration program:

1. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years.

2. An Annual Report for a Yard Trash Processing Facility, DEP Form 62-709.320 (7)(b), shall be submitted by April 1 of each year.

3. A registration renewal, DEP Form 62-709.320(7)(a), shall be submitted by April 1 of each year to renew this registration.

4. The facility shall be operated in accordance with Rules 62-709.320(3) and (4), Florida Administrative Code (F.A.C.). A summary of these requirements is enclosed.

If you need further information, please contact Francine Joyal at the above address, Mail Station 4565, telephone 850/245-8747, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosure

cc: Susan Pelz, Southwest District

*Printed on recycled paper.*

92303

**Morris, John R.**

**From:** Bishop, Kelly [KLBISHOP@mactec.com]
**Sent:** Monday, March 29, 2004 3:36 PM
**To:** Morris, John R.; Ford, Kim
**Cc:** John Power
**Subject:** West Pasco Landfill (Class III)-Monitoring Plan Evaluation Report

COMET UPDATED W/ NEW DUE DATE JRM

John:

Thank you for taking the time to speak with me this afternoon. In light of the information you relayed, I would like to request an extension from March 15, 2004 to July 15, 2004 for the submittal due date for the above reference report.

In regard to Ridge Road, and based on the permit conditions you relayed, we would like to resubmit the report you received in December 2003. It is our understanding that the reporting period is from Quarter 4 2000 to Quarter 3 2003, and you are missing Quarter 4 of 2000 and Quarters 1, 2, and 3 of 2003. We would be able to submit the revised report by May 15th 2004 at the latest. Again, we would prefer to resubmit one report that would contain all the necessary data in lieu of an addendum, if you are amiable to this idea. Just let me know.

Thank you for your guidance and, as always, it was a pleasure speaking with you!

*Kelly Bishop*

*Environmental Department Manager*

*MACTEC Engineering and Consulting, Inc.*

*4919 W. Laurel St.*

*Tampa, Florida 33607*

*813/636-1529 ph | 813/289-5474 fx*

*klbishop@mactec.com*

Florida Department of

# Environmental Protection

Southwest District

## CONVERSATION RECORD

**Date** March 19, 2004 **Subject** Inspection Report

**Time** 9:30AM **Permit No.** N/A

**County** Pasco

Mr. John Power **Phone No.** 727-856-0119

**Representing** West Pasco

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

**Other Individuals in Conversation/Meeting**

**Summary of Conversation/Meeting:**

Mr. Power phoned me regarding the inspection report dated March 18, 2004. We discussed that the groundwater evaluation plan was actually due July 15, 2004, not March 15, 2004 as indicated in the inspection report. We also discussed that the gas-sampling event is due April 15, 2004, but the groundwater and leachate reports are due July 15, 2004. Mr. Power indicated that the electronics in the scrap metal pile were being addressed in the next staff meeting. He also inquired about the flagging at the Class I working face. He indicated that the facility addressed the area yesterday afternoon, but did not understand why I included it in the inspection report. I informed him that there were large areas where the material had not been covered, and that some material was showing through the cover. He indicated that it was material from the MRF, and requested to talk to Kim Ford about the interpretation of the specific condition and when they actually need to cover. He also inquired about the area of the Class III that did not have berms. Mr. Power requested that they use hay bales for a berm while they are filling at the bottom of the cell, and once have filled over, start using dirt again. I asked him to contact Kim Ford, but I could not see a problem with it. He indicated that he would have the response to me by the requested timeframe. End of conversation.

Signature

Lora Ross

Title E.S. I, Solid Waste Section

7-9161

permit folder

# PASCO COUNTY, FLORIDA


UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES BLDG.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

| | |
|---|---|
| DADE CITY | (352) 521-4274 |
| NEW PORT RICHEY | (727) 847-8041 |
| Land O'Lakes | (813) 996-7341 |
| FAX | (727) 847-8064 |


January 15, 2004

Ms. Susan Pelz. P.E.
Solid Waste Section
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Re: Materials Recovery Facility Tonnage for the Quarter
Ending December 31, 2003

Dear Ms. Pelz:

The following are the materials recovered tonnage figures for Pasco County.

TONNAGE OF MATERIALS RECOVERED — REMOVED FROM FACILITY

| Month | Newsprint | Commingled Recyclables | TOTAL | Month % | Quarter % | 12/31/03 YTD % |
|---|---|---|---|---|---|---|
| October | 36.11 | 572.23 | **608.34** | **1.08** | | |
| November | 30.10 | 521.52 | **551.62** | **0.89** | | |
| December | 40.63 | 582.99 | **623.62** | **0.68** | | |
| TOTAL | 106.84 | 1,676.74 | **1,783.58** | | **0.88** | **0.94** |

TONNAGE OF MATERIALS REMOVED FROM SITE

| Sale Code / Month | NP Newsprint | NHD HDPE Natural | CHD HDPE Color | PET PET plastic | GCL Glass/clear | GGR Glass/green | GBR Glass/brown | OCC Cardboard | PC Poly Carb |
|---|---|---|---|---|---|---|---|---|---|
| October | 21.49 | 23.18 | 21.13 | 41.68 | 22.37 | 0.00 | 16.21 | 350.08 | 0.00 |
| November | 21.55 | 20.77 | 0.00 | 21.15 | 26.24 | 0.00 | 0.00 | 240.01 | 0.00 |
| December | 42.87 | 0.00 | 19.27 | 0.00 | 0.00 | 0.00 | 18.03 | 321.77 | 0.00 |
| TOTAL | 85.91 | 43.95 | 40.40 | 62.83 | 48.61 | 0.00 | 34.24 | 911.86 | 0.00 |

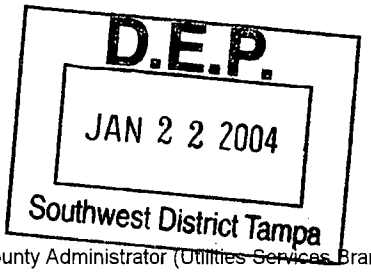
| Sale Code / Month | BBF Blue Bag Film | MIX Mixed Load | MP Office Paper | BIM Steel/Tin | ALU Aluminum | ASP Aseptic Pkg | Other Waste Residue | Other Waste MSW | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| October | 0.00 | 0.00 | 0.00 | 23.07 | 10.68 | 0.00 | 107.97 | 18.76 | **656.62** |
| November | 0.00 | 0.00 | 0.00 | 23.68 | 10.72 | 0.00 | 101.26 | 25.50 | **490.88** |
| December | 0.00 | 0.00 | 0.00 | 23.27 | 0.00 | 0.00 | 0.00 | 0.00 | **425.21** |
| TOTAL | 0.00 | 0.00 | 0.00 | 70.02 | 21.40 | 0.00 | 209.23 | 44.26 | **1,572.71** |

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Other\[MRFQTR-2003.xls]MRFQTR-Dec03




cc: Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendent
Rachel A. Cheever, Recycling Coordinator

~~26355~~
99303
permit folder

# PASCO COUNTY, FLORIDA


UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES DEPT.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

DADE CITY (352) 521-4274
NEW PORT RICHEY (727) 847-8041
Land O'Lakes (813) 996-7341


January 15, 2004

Mr. Richard Tedder, P.E.
Florida Department of Environmental Protection
Twin Towers Building
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Solid Waste Tonnage for Quarter Ending September 30, 2003 - REVISED

Dear Mr. Tedder:

The following are the landfill tonnage for Pasco County, in the previously reported format. Attached please find a schedule of tonnages received, which is based on the 2002 Florida Department of Environmental Protection Regulation 62-701.500 (4) (a) & (b) on Landfill Operation and Reporting Requirements.

NOTE: ORIGINALLY SUBMITTED REPORT WAS INCORRECT. THE WTE AND WEST PASCO CLASS I TONNAGES WERE REVERSED, IN ERROR (PLEASE SEE ATTACHED SCHEDULE, WHICH REMAINS THE SAME)

| Month | West Pasco Class III Tonnage | *WTE Tonnage | West Pasco Class I Landfilled Tonnage | West Pasco Class I Diverted Tonnage |
|---|---|---|---|---|
| July | 277.65 | 28,869.82 | 9,259.82 | 0.00 |
| Aug | 230.46 | 27,049.19 | 6,503.26 | 0.00 |
| Sep | 257.23 | 27,419.78 | 9,408.97 | 0.00 |
| TOTAL | 765.34 | 83,338.79 | 25,172.05 | 0.00 |

| Month | East Pasco Class I Closed to The Public As of 10/01/96 Tonnage | East Pasco Transfer Station Tonnage |
|---|---|---|
| July | 0.00 | 6,476.41 |
| Aug | 0.00 | 6,052.84 |
| Sep | 24.54 | 6,179.85 |
| TOTAL | 24.54 | 18,709.10 |

* These values include tonnages from the East Pasco Transfer Station (EPTS).
** Figures include tonnage diverted to Solid Waste I cell for permanent landfilling.

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Other\[FDEP-Letter-MSW-03.xls]FDEPQTR4-revised

(Attachment)

cc: Susan Pelz, P.E., Solid waste Section, Florida Department of Environmental Protection
3804 Coconut Palm Drive, Tampa, FL 33619-8318
Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendant

**PASCO COUNTY UTILITIES - SOLID WASTE**
TONNAGE SUMMARY - 2003

10/30/2003

| MATERIAL | West Pasco Class III Tonnage JULY | AUGUST | SEPTEMBER | West Pasco Class I Tonnage JULY | AUGUST | SEPTEMBER | WTE Tonnage JULY | AUGUST | SEPTEMBER | East Pasco Class I Tonnage JULY | AUGUST | SEPTEMBER | EPTS Tonnage JULY | AUGUST | SEPTEMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Household Waste | 0.00 | 0.00 | 0.00 | 65.85 | 47.27 | 76.32 | 26,914.39 | 25,165.17 | 25,434.05 | 0.00 | 0.00 | 0.00 | 5,678.86 | 5,445.44 | 5,421.07 |
| 2 Commercial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,427.38 | 1,370.91 | 1,384.01 | 0.00 | 0.00 | 0.00 | 538.33 | 478.08 | 505.65 |
| 3 Ash Residue ** | 0.00 | 0.00 | 0.00 | 9,105.20 | 6,455.99 | 9,332.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 Incinerator By-Pass Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 381.95 | 357.86 | 362.76 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 Construction & Demolition Debris | 277.65 | 230.46 | 257.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.54 | 129.53 | 121.06 | 123.60 |
| 6 Treated Biomedical Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 115.48 | 108.20 | 109.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 Agricultural Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 30.25 | 35.67 | 124.59 | 0.00 | 0.00 | 0.00 | 123.31 | 0.00 | 123.35 |
| 8 Industrial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.37 | 8.38 | 4.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 Yard Trash - IN | 1,381.94 | 1,244.04 | 1,151.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.24 | 3.03 | 3.09 |
| 10 Sewage Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 Industrial Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 Water/Air Treatment Sludges | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires - IN | 94.28 | 52.24 | 101.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.14 | 4.24 | 3.09 |
| 13 Waste Tires - Tires Chipped Landfilled | 0.00 | 0.00 | 0.00 | 88.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Weighted IN** | 1,753.87 | 1,526.74 | 1,509.80 | 9,259.82 | 6,503.26 | 9,408.97 | 28,869.82 | 27,049.19 | 27,419.78 | 0.00 | 0.00 | 24.54 | 6,476.41 | 6,052.84 | 6,179.85 |
| LESS: Yard Trash Stored | (1,381.94) | (1,244.04) | (1,151.34) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yard Trash Mulched | 2,353.40 | 0.00 | 0.00 @@ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yard Trash Mulched & Landscaping | (2,353.40) | 0.00 | 0.00 @@ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yard Trash Mulched & to WTE | 0.00 | 0.00 | 0.00 | 88.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Stored | (94.28) | (52.24) | (101.03) | (88.77) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Landfilled** | 277.65 | 230.46 | 257.23 | 9,259.82 | 6,503.26 | 9,408.97 | 28,869.82 | 27,049.19 | 27,419.78 | 0.00 | 0.00 | 24.54 | 6,476.41 | 6,052.84 | 6,179.85 |
| **Total Tonnage Processed by WTE** | | | | | | | | | | | | | | | |
| **Total Tonnage Received @ Transfer Station** | | | | | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| ASH CELL ** | 9,105.20 | 6,455.99 | 9,332.65 |
| SOLID WASTE CELL | 154.62 | 47.27 | 76.32 |

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."
** = Ash Residue is the only Material Disposed of in the Ash Landfill.

COPY OF THE ORIGINAL, SENT CORRECT, WITH THE COVER LETTER, WHICH (THE COVER LETTER) SHOWED THE WTE AND WEST PASCO CLASS I TONNAGE = SWITCHED, IN ERROR

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

Mr. Douglas Bramlett, Assistant County Administrator
Pasco County Utilities Services
7530 Little Road, S-105
New Port Richey, Fl. 34654

September 23, 2003

RE: West Pasco Class III Landfill , Pasco County
Financial Assurance Cost Estimates
Permit No. 26255-001-SO

Dear Mr. Bramlett:

This letter is to acknowledge receipt of the inflation-adjusted cost estimates dated August 26, 2003 (received September 2, 2003), for closure and long-term care of the West Pasco Class III Landfill. The inflation-adjusted cost estimates received September 2, 2003 (total for closing $1,710,088.73 and long-term care $72,208.78/year x 30 years= $2,166,263.40), are **APPROVED for 2003**. The approved estimates are for closing and long-term care of **20 acres** (Phases 1-4). The next annual update (revised or inflation-adjusted estimates) is due no later than September 1, 2004.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (813) 744-6100 ext. 385.

Sincerely,

Steven G. Morgan
Solid Waste Section
Southwest District

sgm
cc: Robert J. Sigmond, Pasco County, 7530 Little Road, New Port Richey, Fl. 34654
Fred Wick, FDEP, Tallahassee, w/attachment
Kim Ford, P.E., FDEP Tampa
Susan Pelz, P.E., FDEP Tampa

*"More Protection, Less Process"*

*Printed on recycled paper.*

KF
LM
File
WPASCO CIII permit
5/12/03

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 6, 2003

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAY 0 9 2003
SOUTHWEST DISTRICT
TAMPA

Ms. Deloras R. Johnson
Hayes Road Sand Company, LLC
PO Box 602
Land o' Lakes, Florida 34639

Dear Ms. Johnson:

I have received your Application for Registration of a Yard Trash Processing Facility for Hayes Road Sand Company, LLC located at 13838 Hays Road, Spring Hill in Pasco County. The application appears incomplete because it seems that proof of owner permission may be required. You indicated that Hayes Road Sand Company, LLC owns the land where the facility will be located. However, a search of the Pasco County Property Appraiser's database indicates that the property is owned by Newbern Copeland D Trustee. If Hayes Road Sand Company, LLC has recently purchase the property from Newbern Copeland D Trustee, a copy of the warranty deed would provide the needed documentation to address the perceived discrepancy. If a party other than Hayes Road Sand Company, LLC owns the land, then proof of landowner permission must be submitted.

Please send the necessary information within thirty (30) days to me at the above address, Mail Station 4565. If you have any questions, please contact me at this mailing address, or call 850/245-8747.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

cc: Susan Pelz, Southwest District

WPasco CIII permit file

# Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Jeb Bush
Governor

David B. Struhs
Secretary

April 28, 2003

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAY 01 2003
SOUTHWEST DISTRICT TAMPA

Mr. John Power
West Pasco County Class III
14230 Hays Road
Spring Hill, Florida 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2004**. The receipt number for the registration fee you paid is 415374.

You must comply with the following requirements in order to maintain qualification for the registration program:

1. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years.

2. An Annual Report for a Yard Trash Processing Facility, DEP Form 62-709.320 (7)(b), shall be submitted by April 1 of each year.

3. A registration renewal, DEP Form 62-709.320(7)(a), shall be submitted by April 1 of each year to renew this registration.

4. The facility shall be operated in accordance with Rules 62-709.320(3) and (4), Florida Administrative Code (F.A.C.). A summary of these requirements is enclosedd.

If you need further information, please contact Francine Joyal at the above address, Mail Station 4565, telephone 850/245-8747, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosures

cc: Susan Pelz, Southwest District

100323-(E. Pasco)
26445-(E. Pasco TS)
26255 (PRR) W.
92303 (W. Pasco 3)

# PASCO COUNTY, FLORIDA

NEW PORT RICHEY (727) 847-8145
SUNCOM 596-8145

UTILITIES SERVICES BRANCH
PUBLIC WKS./UTILITIES BLDG., S-205
7530 LITTLE ROAD
NEW PORT RICHEY, FL 34654

FACSIMILE TRANSMISSION

TO: MR. KIM FORD
SOLID WASTE SECTION
D.E.P.
FAX (813) 744-6125

FROM: MICHAEL F. LANDI
FISCAL SERVICES / SPECIAL PROJ.
ACCOUNTANT II

DATE: 4/11/03

RE: TONNAGE DATA
2002 - 2003

REMARKS: AS YOU REQUESTED,

TRANSMITTING 11 PAGES INCLUDING COVER SHEET.

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL MIKE

AT (727) 847-8145 OR (727) 847-8041,
SUNCOM 596-8145

OUR FACSIMILE NUMBER IS (727) 847-8064 OR SUNCOM 596-8064.

# PASCO COUNTY, FLORIDA

UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES DEPT.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

DADE CITY (352) 521-4274
NEW PORT RICHEY (727) 847-8041
Land O'Lakes (813) 996-7311

January 10, 2003

Mr. Richard Tedder, P.E.
Florida Department of Environmental Protection
Twin Towers Building
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Solid Waste Tonnage for Quarter Ending December 31, 2002

Dear Mr. Tedder:

The following are the landfill tonnage for Pasco County, in the previously reported format. Attached please find a schedule of tonnages received, which is based on the 2002 Florida Department of Environmental Protection Regulation 62-701.500 (4) (a) & (b) on Landfill Operation and Reporting Requirements.

| | West Pasco Class III | West Pasco Class I | |
|---|---|---|---|
| | | Landfilled | Diverted |
| Month | Tonnage | Tonnage | Tonnage |
| Oct | 242.18 | 7,186.18 | 0.00 |
| Nov | 177.69 | 7,589.64 | 0.00 |
| Dec | 213.09 | 8,521.98 | 0.00 |
| TOTAL | 632.96 | 23,297.80 | 0.00 |

| | East Pasco Class I Closed to The Public As of 10/01/96 | WTE & Transfer Station | |
|---|---|---|---|
| | | * WTE | EPTS |
| Month | Tonnage | Tonnage | Tonnage |
| Oct | 160.62 | 29,859.11 | 9,076.08 |
| Nov | 0.00 | 27,708.64 | 8,305.91 |
| Dec | 0.00 | 31,104.09 | 9,461.33 |
| TOTAL | 160.62 | 88,671.84 | 26,843.32 |

→ EAST PASCO TRANSFER STATION

* These values include tonnages from the East Pasco Transfer Station (EPTS).
** Figures include tonnage diverted to Solid Waste I cell for permanent landfilling.

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Other\[FDEP-Letter-MSW-03.xls]FDEPQTR1

(Attachment)

cc: Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendant

COPY TO SUSAN PELZ, P.E.
SOLID WASTE SECTION
FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION
[illegible]

# PASCO COUNTY, FLORIDA

UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES DEPT.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

DADE CITY (352) 521-4274
NEW PORT RICHEY (727) 847-8043
Land O'Lakes (813) 996-7341

October 15, 2002

Mr. Richard Tedder, P.E.
Florida Department of Environmental Protection
Twin Towers Building
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Solid Waste Tonnage for Quarter Ending September 30, 2002

Dear Mr. Tedder:

The following are the landfill tonnage for Pasco County, in the previously reported format. Attached please find a schedule of tonnages received, which is based on the 2002 Florida Department of Environmental Protection Regulation 62-701.500 (4) (a) & (b) on Landfill Operation and Reporting Requirements.

| | West Pasco Class III | | West Pasco Class I | |
|---|---|---|---|---|
| | | | Landfilled | Diverted |
| Month | Tonnage | | Tonnage | Tonnage |
| July | 251.99 | | 8,655.75 | 0.00 |
| Aug | 278.79 | ** | 8,394.55 | 0.00 |
| Sept | 223.89 | ** | 8,719.07 | 0.00 |
| TOTAL | 754.67 | | 25,769.37 | 0.00 |

| | East Pasco Class I Closed to The Public As of 10/01/96 | WTE & Transfer Station | |
|---|---|---|---|
| | | * WTE | EPTS |
| Month | Tonnage | Tonnage | Tonnage |
| July | 0.00 | 30,591.52 | 9,299.49 |
| Aug | 0.00 | 29,853.09 | 8,486.45 |
| Sept | 86.72 | 29,049.54 | 8,122.78 |
| TOTAL | 86.72 | 89,494.15 | 25,908.72 |

* These values include tonnages from the East Pasco Transfer Station (EPTS).
** Figures include tonnage diverted to Solid Waste I cell for permanent landfilling.

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Other\[FDEP-Letter-MSW-02.xls]FDEPQTR4

(Attachment)

cc: Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendant

**PASCO COUNTY UTILITIES - SOLID WASTE**
TONNAGE SUMMARY - 2002
October 2002 - December 2002

01/03/2003

| MATERIAL | West Pasco Class III Tonnage | | | West Pasco Class I Tonnage | | | East Pasco Class I Tonnage | | | WTE Tonnage | | | EPTS Tonnage | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | NOVEMBER | DECEMBER | OCTOBER | NOVEMBER | DECEMBER | OCTOBER | NOVEMBER | DECEMBER | OCTOBER | NOVEMBER | DECEMBER | OCTOBER | NOVEMBER | DECEMBER |
| 1 Household Waste | 0.00 | 0.00 | 0.00 | 20.93 | 23.20 | 16.72 | 0.00 | 0.00 | 0.00 | 28,383.03 | 26,263.90 | 29,636.80 | 7,682.20 | 7,164.34 | 8,256.13 |
| 2 Commercial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 928.61 | 875.74 | 925.00 | 980.72 | 755.66 | 805.00 |
| 3 Ash Residue | 0.00 | 0.00 | 0.00 | 7,165.25 | 7,566.44 | 8,505.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 Incinerator By-Pass Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 Construction & Demolition Debris | 242.18 | 177.69 | 213.09 | 0.00 | 0.00 | 0.00 | 160.62 | 0.00 | 0.00 | 396.04 | 366.59 | 411.51 | 181.52 | 166.12 | 189.23 |
| 6 Treated Biomedical Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 Agricultural Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 119.44 | 110.83 | 124.42 | 222.70 | 189.82 | 171.51 |
| 8 Industrial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.78 | 48.58 | 6.37 | 0.00 | 0.00 | 0.00 |
| 9 Yard Trash - IN | 1,121.33 | 743.38 | 679.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.54 | 4.15 | 4.73 |
| 10 [illegible]age Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.22 | 42.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| [illegible]strial Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 [illegible]ater/Air Treatment Sludges | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 Waste Tires - IN | 65.74 | 53.38 | 64.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.40 | 5.81 | 4.73 |
| 13 Waste Tires - Tires Chipped Landfilled | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Tonnage Weighted IN | 1,450.25 | 974.45 | 957.52 | 7,186.18 | 7,589.64 | 8,521.98 | 160.62 | 0.00 | 0.00 | 29,859.11 | 27,708.64 | 31,104.09 | 9,076.08 | 8,305.91 | 9,461.33 |
| LESS: Yard Trash Stored | (1,121.33) | (743.38) | (679.80) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yard Trash Mulched & to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Stored | (65.74) | (53.38) | (64.63) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Tonnage Landfilled | 242.18 | 177.69 | 213.09 | 7,186.18 | 7,589.64 | 8,521.98 | 160.62 | 0.00 | 0.00 | | | | | | |
| Total Tonnage Processed by WTE | | | | | | | | | | 29,859.11 | 27,708.64 | 31,104.09 | | | |
| Total Tonnage Received @ Transfer Station | | | | | | | | | | | | | 9,076.08 | 8,305.91 | 9,461.33 |

= ASH RESIDUE IS ONLY MATERIAL DISPOSED OF IN ASH LANDFILL

Apr 11 03 12:30p PASCO COUNTY UTILITIES (727) 847-8064 p.3

**PASCO COUNTY UTILITIES - SOLID WASTE**
TONNAGE SUMMARY - 2002
July 2002 - September 2002

10/09/2002

| MATERIAL | West Pasco Class III Tonnage | | | West Pasco Class I Tonnage | | | East Pasco Class I Tonnage | | | WTE Tonnage | | | EPTS Tonnage | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | JULY | AUGUST | SEPTEMBER | JULY | AUGUST | SEPTEMBER | JULY | AUGUST | SEPTEMBER | JULY | AUGUST | SEPTEMBER | JULY | AUGUST | SEPTEMBER |
| 1 Household Waste | 0.00 | 0.00 | 0.00 | 18.91 | 20.60 | 15.08 | 0.00 | 0.00 | 0.00 | 25,123.68 | 27,663.08 | 27,555.02 | 7,850.71 | 7,075.87 | 6,884.45 |
| 2 Commercial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 936.79 | 1,042.42 | 994.00 | 823.76 | 925.26 | 791.00 |
| 3 Ash Residue | 0.00 | 0.00 | 0.00 | 8,632.40 | 8,373.36 | 8,657.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 Incinerator By-Pass Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 Construction & Demolition Debris | 251.99 | 278.79 | 223.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 404.73 | 394.96 | 384.33 | 185.99 | 169.73 | 182.48 |
| 6 Treated Biomedical Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 Agricultural Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 122.37 | 115.41 | 116.20 | 429.67 | 305.61 | 276.75 |
| 8 Industrial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.98 | 633.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 Yard Trash - IN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.65 | 4.24 | 4.06 |
| 10 Sewage Sludge | 1,156.26 | 1,159.11 | 862.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 Industrial Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 Water/Air Treatment Sludges | 0.00 | 0.00 | 0.00 | 0.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.51 | 5.94 | 4.06 |
| 13 Waste Tires - IN | 0.00 | 0.00 | 0.00 | 3.48 | 0.59 | 16.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 Waste Tires - Tires Chipped Landfilled | 68.35 | 62.48 | 65.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9,299.49 | 8,486.45 | 8,122.78 |
| | (68.35) | (62.48) | (65.21) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| **Total Tonnage Weighted IN** | 1,408.25 | 1,437.90 | 1,086.46 | 8,655.75 | 8,394.55 | 8,719.07 | 0.00 | 0.00 | 86.72 | 30,591.52 | 29,853.09 | 29,049.54 | | | |
| LESS: Yard Trash Stored | | | | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yard Trash Mulched & to WTE | (1,152.28) | (525.89) | (862.57) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Stored | (3.98) | (633.22) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Landfilled** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 251.99 | 278.79 | 223.89 | 8,655.75 | 8,394.55 | 8,719.07 | 0.00 | 0.00 | 86.72 | 30,591.52 | 29,853.09 | 29,049.54 | | | |
| **Total Tonnage Processed by WTE** | | | | | | | | | | | | | 9,299.49 | 8,486.45 | 8,122.78 |
| **Total Tonnage Received @ Transfer Station** | | Less AB/I | | 8,632.40 | 8,373.36 | 8,657.89 | | | | | | | | | |
| | | | | 23.35 | 21.19 | 31.18 | | | | | | | | | |

Apr 11 03 12:30p PASCO COUNTY UTILITIES (727) 847-8064 P.5

# PASCO COUNTY, FLORIDA

UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES DEPT.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

DADE CITY (352) 521-4274
NEW PORT RICHEY (727) 847-8041
Land O'Lakes (813) 996-7341

July 19, 2002

Mr. Richard Tedder, P.E.
Florida Department of Environmental Protection
Twin Towers Building
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Solid Waste Tonnage for Quarter Ending June 30, 2002

Dear Mr. Tedder:

The following are the landfill tonnage for Pasco County, in the previously reported format. Attached please find a schedule of tonnages received, which is based on the 2002 Florida Department of Environmental Protection Regulation 62-701.500 (4) (a) & (b) on Landfill Operation and Reporting Requirements.

West Pasco Class III

| Month | Tonnage |
|---|---|
| April | 287.28 |
| May | 253.52 |
| June | 243.84 |
| TOTAL | 784.64 |

West Pasco Class I

| | Landfilled Tonnage | Diverted Tonnage |
|---|---|---|
| | 8,127.93 | 0.00 |
| ** | 10,442.10 | 3,159.78 |
| ** | 16,771.75 | 12,347.04 |
| | 35,341.78 | 15,506.82 |

East Pasco Class I
Closed to The Public
As of 10/01/96

| Month | Tonnage |
|---|---|
| April | 0.00 |
| May | 0.00 |
| June | 153.50 |
| TOTAL | 153.50 |

WTE & Transfer Station

| * WTE Tonnage | EPTS Tonnage |
|---|---|
| 31,138.48 | 10,379.35 |
| 25,752.99 | 9,508.12 |
| 15,378.91 | 9,785.98 |
| 72,270.38 | 29,673.45 |

* These values include tonnages from the East Pasco Transfer Station (EPTS).
** Figures include tonnage diverted to Solid Waste I cell for permanent landfilling.

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Files\[FDEP-Letter-MSW-02.xls]FDEPQTR3

(Attachment)

cc: Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendant

**PASCO COUNTY UTILITIES - SOLID WASTE**
TONNAGE SUMMARY - 2002
Apr 2001 - June 2002

07/15/2002

| MATERIAL | West Pasco Class III Tonnage | | | West Pasco Class I Tonnage | | | East Pasco Class I Tonnage | | | WTE Tonnage | | | EPTS Tonnage | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APR | MAY | JUN | APR | MAY | JUN | APR | MAY | JUN | APR | MAY | JUN | APR | MAY | JUN |
| 1 Household Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29,667.44 | 24,422.01 | 14,204.53 | 9,076.66 | 8,214.09 | 8,551.15 |
| 2 Commercial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 885.69 | 858.90 | 885.00 | 795.73 | 817.68 | 830.00 |
| 3 Ash Residue | 0.00 | 0.00 | 0.00 | 8,089.54 | 7,265.80 | 3,610.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 Incinerator By-Pass Waste | 0.00 | 0.00 | 0.00 | 0.00 | 3,159.78 | 12,347.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 Construction & Demolition Debris | 287.28 | 253.52 | 243.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 153.50 | 411.96 | 340.71 | 203.46 | 202.89 | 202.89 | 202.89 |
| 6 Treated Biomedical Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 Agricultural Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 124.55 | 103.01 | 61.52 | 272.30 | 244.71 | 172.01 |
| 8 Industrial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 Yard Trash - IN | 1,152.32 | 1,045.29 | 928.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 44.32 | 28.36 | 24.40 | 22.69 | 20.54 | 21.38 |
| 10 Sewage Sludge | 0.00 | 0.00 | 0.00 | 38.39 | 16.52 | 2.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 Industrial Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 Water/Air Treatment Sludges | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 Waste Tires - IN | 123.60 | 72.15 | 89.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 Waste Tires - Tires Chipped Landfilled | (123.60) | (72.15) | (616.24) | 0.00 | 0.00 | 811.99 | 0.00 | 0.00 | 0.00 | 4.51 | 0.00 | 0.00 | 9.08 | 8.21 | 8.56 |
| **Total Tonnage Weighted IN** | 1,439.60 | 1,298.81 | 645.56 | 8,127.93 | 10,442.10 | 16,771.75 | 0.00 | 0.00 | 153.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LESS: Yard Trash Stored | (1,152.32) | (1,045.29) | (928.28) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 31,138.48 | 25,752.99 | 15,378.91 | 10,379.35 | 9,508.12 | 9,785.98 |
| Waste Tires Stored | 0.00 | 0.00 | 526.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Landfilled** | 287.28 | 253.52 | 243.84 | 8,127.93 | 10,442.10 | 16,771.75 | 0.00 | 0.00 | 153.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Processed by WTE** | | | | | | | | | | 31,138.48 | 25,752.99 | 15,378.91 | | | |
| **Total Tonnage Received @ Transfer Station** | | | | | | | | | | | | | 10,379.35 | 9,508.12 | 9,785.98 |

LESS ASH 8,089.54 7,265.80 3,610.66

38.39 3,176.30 13,161.09

# PASCO COUNTY, FLORIDA

UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES DEPT.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

DADE CITY (352) 521-4274
NEW PORT RICHEY (727) 847-8041
Land O'Lakes (813) 996-7341

April 15, 2002

Mr. Chongman Lee
Florida Department of Environmental Protection
Twin Towers Building
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Solid Waste Tonnage/Leachate Hauling for Quarter Ending March 31, 2002

Dear Mr. Lee

The following are the landfill tonnage for Pasco County.

| Month | West Pasco Class III Tonnage | West Pasco Class I Landfilled Tonnage | To WTE Tonnage | Net Tonnage |
|---|---|---|---|---|
| January | 209.29 | 8,251.98 | 0.00 | 8,251.98 |
| February | 268.12 | 7,761.65 | 0.00 | 7,761.65 |
| March | 437.06 | 7,518.12 | 0.00 | 7,518.12 |
| TOTAL | 914.47 | 23,531.75 | 0.00 | 23,531.75 |

| Month | East Pasco Class I Closed to The Public As of 10/01/96 Tonnage | WTE & Transfer Station * WTE Tonnage | EPTS Tonnage |
|---|---|---|---|
| January | 112.12 | 30,137.87 | 8,990.90 |
| February | 0.00 | 27,086.07 | 8,052.23 |
| March | 0.00 | 30,523.24 | 9,135.11 |
| TOTAL | 112.12 | 87,747.18 | 26,178.24 |

* These values include tonnages from the East Pasco Transfer Station (EPTS).
** Figures include tonnage diverted to Solid Waste I cell for temporary storage.
R Revised Figures

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Other\[FDEPQTR1-MSW2002.xls]FDEPQTR1

cc: Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendent

PASCO COUNTY UTILITIES - SOLID WASTE
TONNAGE SUMMARY - 2001
JAN 2002 - MAR 2002

04/08/2002

| MATERIAL | West Pasco Class III Tonnage JAN | FEB | MAR | West Pasco Class I Tonnage JAN | FEB | MAR | East Pasco Class I Tonnage JAN | FEB | MAR | WTE Tonnage JAN | FEB | MAR | EPTS Tonnage JAN | FEB | MAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Household Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28,175.04 | 25,271.92 | 29,006.15 | 7,867.55 | 6,968.73 | 8,038.93 |
| 2 Commercial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 788.61 | 744.02 | 850.85 | 757.45 | 752.34 | 814.71 |
| 3 Ash Residue | 0.00 | 0.00 | 0.00 | 8,124.15 | 7,355.20 | 7,455.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 Incinerator By-Pass Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 Construction & Demolition Debris | 209.29 | 268.12 | 437.06 | 0.00 | 0.00 | 0.00 | 112.12 | 0.00 | 0.00 | 370.70 | 358.35 | 244.19 | 179.82 | 161.04 | 182.70 |
| 6 Treated Biomedical Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 Agricultural Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 120.55 | 108.34 | 122.09 | 172.60 | 156.04 | 85.07 |
| 8 Industrial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 121.01 | 104.05 | 125.18 | 0.00 | 0.00 | 0.00 |
| 9 Yard Trash - IN | 693.57 | 796.20 | 1,139.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 551.96 | 425.84 | 51.72 | 4.50 | 4.03 | 4.57 |
| 10 Sewage Sludge | 0.00 | 0.00 | 0.00 | 127.83 | 406.45 | 62.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 Industrial Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 Water/Air Treatment Sludges | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 Waste Tires - IN | 0.00 | 0.00 | 0.00 | 85.30 | 57.23 | 137.26 | 0.00 | 0.00 | 0.00 | 0.00 | 73.55 | 123.06 | 8.99 | 8.05 | 9.14 |
| 13 Waste Tires - Tire Chips Landfilled | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Weighted IN** | 902.86 | 1,064.32 | 1,576.27 | 8,337.28 | 7,818.88 | 7,655.38 | 112.12 | 0.00 | 0.00 | 30,137.87 | 27,086.07 | 30,523.24 | 8,990.90 | 8,052.23 | 9,135.11 |
| LESS: Yard Trash Stored | (693.57) | (796.20) | (1,139.21) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Stored | 0.00 | 0.00 | 0.00 | (85.30) | (57.23) | (137.26) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Landfilled** | 209.29 | 268.12 | 437.06 | 8,251.98 | 7,761.65 | 7,518.12 | 112.12 | 0.00 | 0.00 | | | | | | |
| **Total Tonnage Processed by WTE** | | | | | | | | | | 30,137.87 | 27,086.07 | 30,523.24 | | | |
| **Total Tonnage Received @ Transfer Station** | | | | | | | | | | | | | 8,990.90 | 8,052.23 | 9,135.11 |

Apr 11 03 12:31p PASCO COUNTY UTILITIES (727) 847-9064 P.9

# PASCO COUNTY, FLORIDA

UTILITIES FISCAL SERVICES/
SPECIAL PROJECTS DEPT.
PUBLIC WORKS/UTILITIES DEPT.
7530 LITTLE ROAD, S-204
NEW PORT RICHEY, FL 34654

DADE CITY (352) 521-4274
NEW PORT RICHEY (727) 847-8041
Land O'Lakes (813) 996-7341

January ~~October~~ 15, 2002

Mr. Chongman Lee
Florida Department of Environmental Protection
Twin Towers Building
2600 Blairstone Road
Tallahassee, FL 32399-2400

Re: Solid Waste Tonnage/Leachate Hauling for Quarter Ending December 31, 2001

Dear Mr. Lee

The following are the landfill tonnage for Pasco County.

| Month | West Pasco Class III Tonnage |
|---|---|
| October | 238.80 |
| November | 245.51 |
| December | 215.76 |
| TOTAL | 700.07 |

| | West Pasco Class I Landfilled Tonnage | To WTE Tonnage | Net Landfille Tonnage |
|---|---|---|---|
| | 6,820.80 | 0.00 | 6,820.80 |
| | 7,436.35 | 0.00 | 7,436.35 |
| | 8,227.67 | 0.00 | 8,227.67 |
| | 22,484.82 | 0.00 | 22,484.82 |

| Month | East Pasco Class I Closed to The Public As of 10/01/96 Tonnage |
|---|---|
| October | 0.00 |
| November | 0.00 |
| December | 13.36 |
| TOTAL | 13.36 |

| | WTE & Transfer Station * WTE Tonnage | EPTS Tonnage |
|---|---|---|
| | 28,218.68 | 7,839.67 |
| | 26,659.41 | 7,867.79 |
| | 26,993.25 | 7,998.19 |
| | 81,871.34 | 23,705.65 |

* These values include tonnages from the East Pasco Transfer Station (EPTS).
** Figures include tonnage diverted to Solid Waste I cell for temporary storage.

Please call (727) 847-8041, Ext. # 8643 should you have any questions.

Sincerely,

Michael F. Landi
Accountant II
Utilities Fiscal Services/
Special Projects Department

C:\WINDOWS\DESKTOP\DEP Reports\Other\[FDEPQTR1-MSW2001.xls]FDEPQTR4

(Attachment)

cc: Kira Ford, P.E., Florida Department of Environmental Protection, [illegible]
Palm Drive, Tampa, FL 33619
Douglas S. Bramlett, Assistant County Administrator (Utilities Services Branch)
Robert J. Sigmond, Fiscal Services/Special Projects Director
John P. Power, Solid Waste Facility Manager
Ronald Walker, Solid Waste Superintendent

PASCO COUNTY UTILITIES - SOLID WASTE
TONNAGE SUMMARY - 2001
OCT 2001 - DEC 2001

01/08/2002

| MATERIAL | West Pasco Class III Tonnage | | | West Pasco Class I Tonnage | | | East Pasco Class I Tonnage | | | WTE Tonnage | | | EPTS Tonnage | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCT | NOV | DEC | OCT | NOV | DEC | OCT | NOV | DEC | OCT | NOV | DEC | OCT | NOV | DEC |
| 1 Household Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26,263.19 | 25,294.50 | 25,703.03 | 6,771.71 | 6,962.48 | 7,106.73 |
| 2 Commercial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 781.12 | 816.44 | 858.07 | 715.05 | 612.22 | 607.37 |
| 3 Ash Residue | 0.00 | 0.00 | 0.00 | * 6,727.09 | * 7,414.02 | * 8,014.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 Incinerator By-Pass Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 Construction & Demolition Debris | 238.80 | 245.51 | 215.76 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.36 | 347.09 | 352.70 | 215.95 | 156.79 | 157.36 | 159.96 |
| 6 Treated Biomedical Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 Agricultural Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 112.67 | 106.64 | 107.97 | 182.01 | 121.57 | 109.73 |
| 8 Industrial Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 95.39 | 21.98 | 12.87 | 0.00 | 0.00 | 0.00 |
| 9 Yard Trash - IN | 820.65 | 881.09 | 674.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 30.49 | 67.15 | 95.36 | 3.92 | 3.93 | 4.00 |
| 10 Sewage Sludge | 0.00 | 0.00 | 0.00 | ① 93.71 | ① 22.33 | ① 213.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 Industrial Sludge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 Water/Air Treatment Sludges | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 Waste Tires - IN | 0.00 | 0.00 | 0.00 | 94.14 | 67.71 | 83.76 | 0.00 | 0.00 | 0.00 | 588.53 | 0.00 | 0.00 | 10.19 | 10.23 | 10.40 |
| 13 Waste Tires - Tire Chips Landfilled | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Weighted IN** | 1,059.45 | 1,126.60 | 890.54 | 6,914.94 | 7,504.06 | 8,311.43 | 0.00 | 0.00 | 13.36 | 28,218.68 | 26,659.41 | 26,993.25 | 7,839.67 | 7,867.79 | 7,998.19 |
| LESS: Yard Trash Stored | (820.65) | (881.09) | (674.78) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Stored | 0.00 | 0.00 | 0.00 | (94.14) | (67.71) | (83.76) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Waste Tires Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tire Chips Moved to SWI | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons Moved to WTE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Tonnage Landfilled** | 238.80 | 245.51 | 215.76 | 6,820.80 | 7,436.35 | 8,227.67 | 0.00 | 0.00 | 13.36 | | | | | | |
| **Total Tonnage Processed by WTE** | | | | 6,727.09 | 7,414.02 | 8,014.20 | | | | 28,218.68 | 26,659.41 | 26,993.25 | | | |
| **Total Tonnage Received @ Transfer Station** | | | | ① 93.71 | 22.33 | 213.47 | | | | | | | 7,839.67 | 7,867.79 | 7,998.19 |

Less Ash
SWI

* ASH RESIDUE IS ONLY MATERIAL DISPOSED OF IN ASH LANDFILL

Apr 11 03 12:32p PASCO COUNTY UTILITIES (727) 847-8064 p.11

WASTE MGT TAMPA SWD [redacted]x:8137446125

** Transmit Conf. Report **

P.1 May 29 2002 8:17

| Telephone Number | Mode | Start | Time | Pages | Result | Note |
|---|---|---|---|---|---|---|
| 817278613099 | NORMAL | 29, 8:16 | 1'01" | 2 | * O K | |

Susan
Pasco opening Cell 2 of W Pasco C III, so I faxed this for them to note when they opened the valve and capped drain to swale.
Kim

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

FAX

Date: 5/29/02
Number of pages including cover sheet: 2

TO: Ron Walker
Pasco Co
PHONE: 727 8560119
FAX #: 727 8613099

FROM: Kim Ford
PHONE: (813) 744-6100, 382
FAX #: (813) 744-6125

CC:

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

West Pasco C III

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

FAX

Date: 5/29/02

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CC:

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

West Pasco CIII

N

# WEST PASCO COUNTY LANDFILL
## CLASS III
## LINER, INVERT, & TANK ELEV.

| TANK #1 | |
|---|---|
| Rim | 51.03 |
| Inv. Cell 1 | 39.32 |
| Liner | 44.9 |
| Compliance | 45.9 |

| TANK #2 | |
|---|---|
| Rim | 51.12 |
| Inv. Cell 4 | 39.85 |
| Liner | 44.9 |
| Compliance | 45.9 |

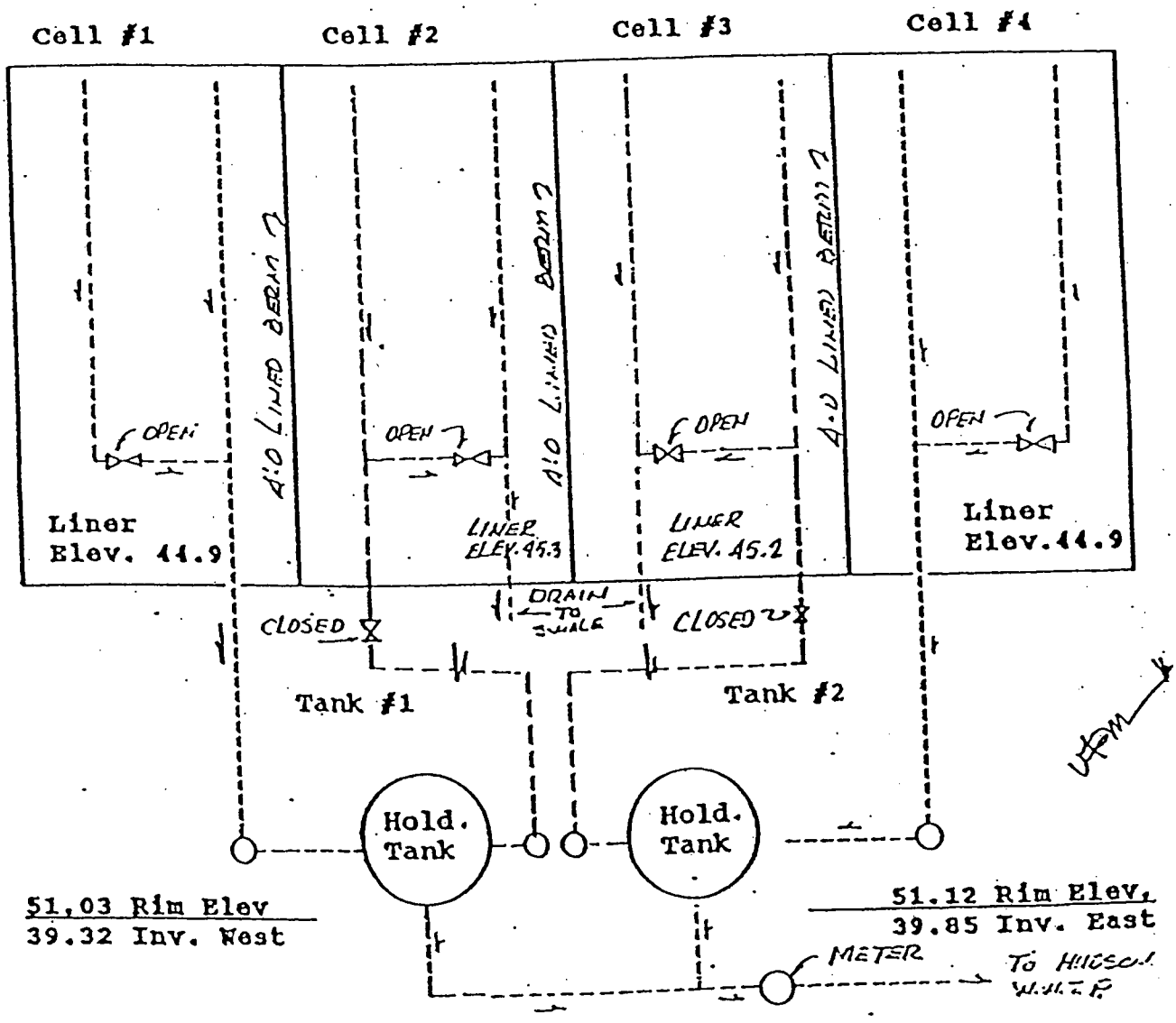



FIGURE Nº 4

# Department of
# Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

Mr. Douglas Bramlett, Assistant County Administrator
Pasco County Utilities Services
7530 Little Road, S-204
New Port Richey, FL 34654

October 3, 2002

RE: Financial Assurance Cost Estimates
West Pasco Class III Landfill, Pasco County
Permit No.: 26255-001-SO

Dear Mr. Bramlett:

This letter is to acknowledge receipt of the inflation-adjusted cost estimates, dated September 4, 2002 (received September 6, 2002), for closing and long-term care of the West Pasco Class III Landfill, and Waste Tire Processing Facility. The cost estimates received September 6, 2002 ($1,693,157.16 total closing and $71,493.84/year x 30 years = $2,144,815.20 total long-term care) are **APPROVED for 2002.** The approved estimates include closing and long-term care for 20 acres of landfill disposal area and $155,943.72 for closing the waste tire processing facility (maximum 2500 tons of waste tires). The next annual update (revised or inflation-adjusted estimates) is due no later than September 1, 2003.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, P.E.
Solid Waste Manager
Southwest District

sjp
cc: Robert J. Sigmond, Pasco County, 7530 Little Road, New Port Richey, FL 34654
John Powers, Pasco County, 14230 Hays Road, Spring Hill, FL 34610
Fred Wick, FDEP, Tallahassee, w/attachment
Kim Ford, P.E., FDEP Tampa

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

SEP 1 8 2002

Ms. Candia Mulhern
Laboratory Manager
Utilities Services Branch
Public Works/Utilities Building S-213
7530 Little Road
New Port Richey, FL 34654

SUBJECT: Permit Number 26255-001-SO, Pasco County

Dear Ms. Mulhern:

Enclosed is a copy of the permit for West Pasco Class III LF as per your request. Specific Condition 19, "Gas Monitoring Locations" indicates the new gas probes that need to be sampled quarterly. If you have any further questions please contact me at the number listed below.

Sincerely-

Lora Ross

Lora Ross
Environmental Specialist I
Solid Waste Section
3804 Coconut Palm Dr
Tampa, FL 33619
813-744-6100 ext 375
Lora.Ross@dep.state.fl.us

Enclosure: Permit Number 26255-001-SO

Cc: Susan Pelz, FDEP

BEST AVAILABLE COPY



# CDM FAX

Date: 7-5-01

No. of pages including cover sheet: 3

TO: Kim Ford

FROM: Daniel E. Strobridge

Phone:

Fax: 744 6125

CC:

Job No:

CAMP DRESSER & McKEE INC.
1715 N. WESTSHORE BLVD.
SUITE 875
TAMPA, FLORIDA 33607

Phone: 813-281-2900
Fax: 813-288-8787

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

Per our conversation this morning.

If you have problems with this fax, please contact Teralynn Patterson

BEST AVAILABLE COPY



**CDM** Camp Dresser & McKee Inc.

## Memorandum

*To:* *Kim Ford*

*From:* *Dan Strobridge*

*Date:* *July 5, 2001*

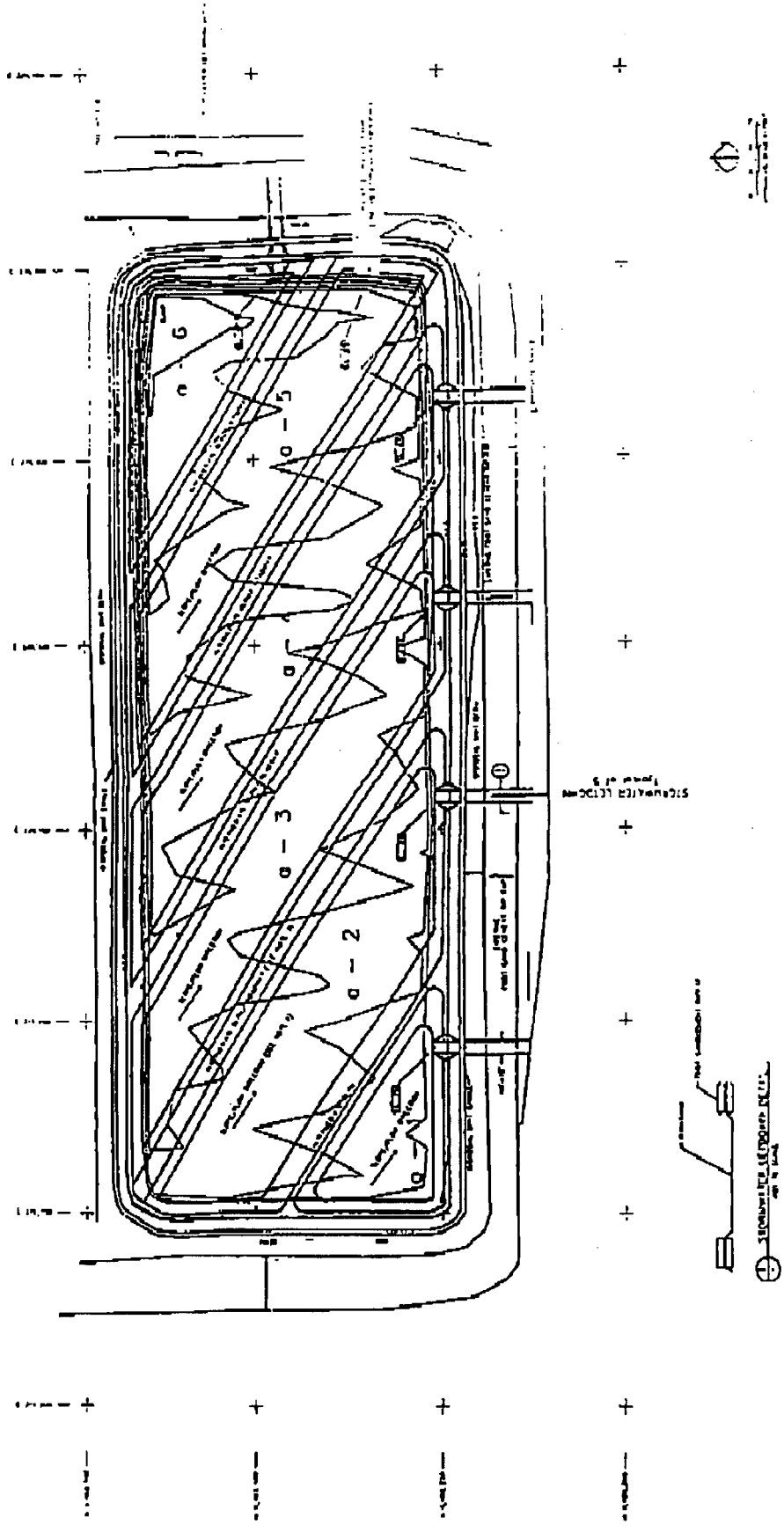
*Subject:* *Pasco County Operations Plan Figure 2B*

Transmitted, herewith, is a revised Figure 2B for the West Pasco Landfill Operations Plan. Please remove the existing Figure 2B and replace it with the attached.

cc: D. Bramlett

BEST AVAILABLE COPY





C:\Temp\T601021.doc 07/05/01

Figure 2B

# facsimile
TRANSMITTAL

[redacted]

**to:** Kim Ford
**fax #:** 1-813-744-6125
**re:** West Pasco Class III
**date:** May 29, 2002
**pages:** 3, including this cover sheet.

From the desk of...

**Ron Walker**
Solid Waste Superintendent
Pasco County Resource Recovery Facility
14230 Hays Rd...
Spring Hill, FL 34610

727-856-0119
Fax: 727-861-3099

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

**FAX**

Date: 5/29/02
Number of pages including cover sheet: 2

TO: Ron Walker
Pasco Co
PHONE: 727 8560119
FAX#: 727 8613099

FROM: Kim Ford
PHONE: (813) 744-6100, 382
FAX#: (813) 744-6125

CC:

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

West Pasco CUI

N

# WEST PASCO COUNTY LANDFILL
## CLASS III
## LINER, INVERT, & TANK ELEV.

**TANK #1**

Rim 51.03

Inv. Cell 1 39.32

Liner 44.9

Compliance 45.9

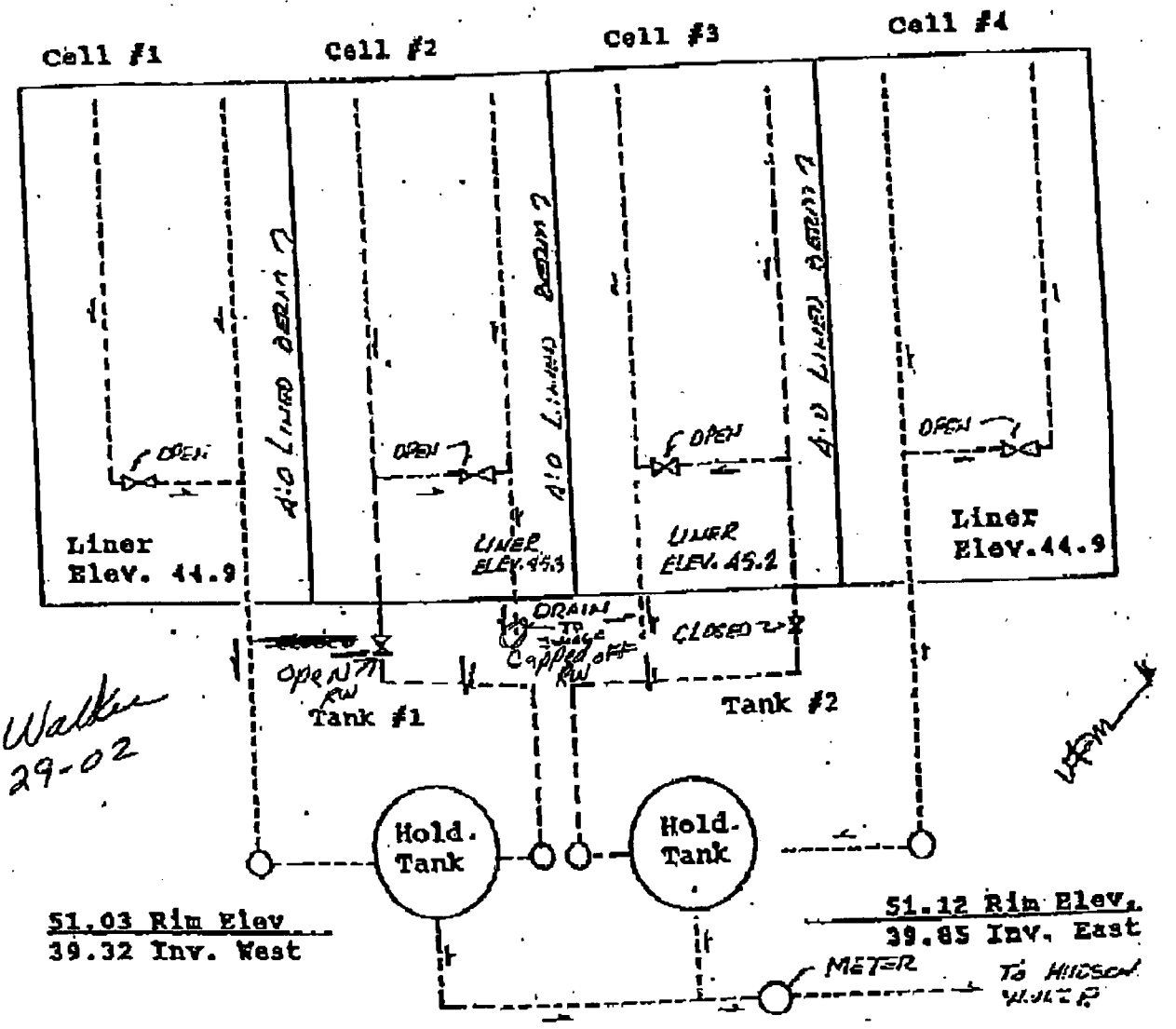
**TANK #2**

Rim 51.12

Inv. Cell 4 39.85

Liner 44.9

Compliance 45.9




Ron Walker 5-29-02

FIGURE Nº 4

permit file
W. Pasco CIII

WASTE MGT TAMPA SWD x:8137446125

** Transmit Conf. Report **

P.1 May 29 2002 8:17

| Telephone Number | Mode | Start | Time | Pages | Result | Note |
|---|---|---|---|---|---|---|
| 817278613099 | NORMAL | 29, 8:16 | 1'01" | 2 | * O K | |

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PASCO opening Cell 2 of W Pasco CIII so I faxed this for them to note when they opened the valve and capped drain to swale.
Tom


**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**


FAX

Date: 5/29/02

Number of pages including cover sheet: 2

TO: Ron Walker
Pasco Co
PHONE: 727 8560119
FAX #: 727 8613099

FROM: Tim Ford
PHONE: (813) 744-6100, 382
FAX #: (813) 744-6125

CC:

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

West Pasco CIII

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

# FAX

Date: 5/26/02

Number of pages including cover sheet: 2

TO: Ron Walker — FROM: Tim Ford

Pasco Co

PHONE: 727 8560119 — PHONE: (813) 744-6100, 382

FAX #: 727 8613099 — FAX #: (813) 744-6125

CC:

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

West Pasco CIII

N

# WEST PASCO COUNTY LANDFILL
## CLASS III
## LINER, INVERT, & TANK ELEV.

**TANK #1**

Rim 51.03

Inv. 39.32
CELL 1

Liner 44.9

Compliance 45.9

**TANK #2**

Rim 51.12

Inv. 39.85
CELL 4

Liner 44.9

Compliance 45.9

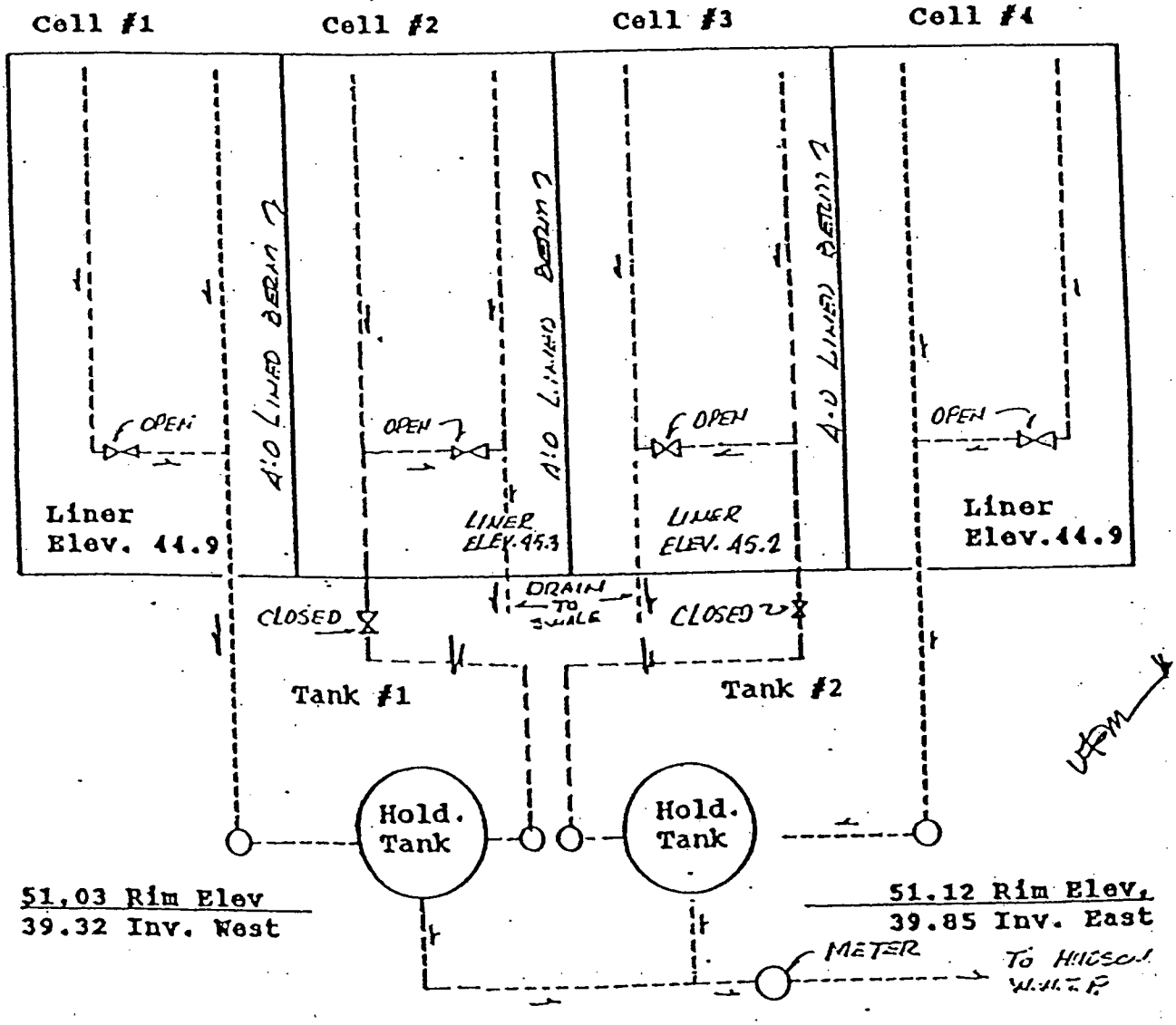



FIGURE Nº 4

Department of
Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

NOTICE OF PERMIT

April 19, 2002

Pasco County
Board of County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

Dear Mr. Power:

Enclosed is a Permit Number **26255-001-SO**, issued pursuant to Section(s) 403.087(1), Florida Statues.

A person whose substantial interests are affected by the Department's proposed agency action may file a timely petition for an administrative hearing under sections 120.569 and 120.57 of the Florida Statutes, or may choose to pursue mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth below.

A person may pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the applicant, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by ) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

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

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

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

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

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

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

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

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

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

The petition for an administrative hearing must conform to the requirements of Chapters 62-110 and 28-106, F.A.C., and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, 32399-3000, within fourteen (14) days of receipt of this notice. Failure to file a petition within fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-110, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit or Permit Modification) is final, any party to the Department has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab
Attachment

cc: Jason Gorrie, P.E., CDM
Robert Butera, P.E., FDEP Tampa
Susan Pelz, P.E., FDEP Tampa (permit notebook)
Richard Tedder, P.E., FDEP Tallahassee

**CERTIFICATE OF SERVICE**

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on April 19, 2002 to the listed persons.

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

4-19-2002
Date

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

**PERMITTEE**
Pasco County Board of
County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

**PERMIT/CERTIFICATION**
WACS Facility ID No: SWD/51/45920
Permit No: 26255-001-SO
Date of Issue: **04/19/2002**
Expiration Date: **04/19/2007**
County: Pasco
Lat/Long: 28°22'22"N
82°34'06"W
Sec/Town/Rge: 25 & 26/24S/17E
Project: West Pasco
Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 20 acres), referred to as the West Pasco Class III Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste, located at 14606 Hays Road, 3 miles north of County Road 52, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of:

1. Class III Landfill Disposal Facility

Replaces Permit No.: SO51-267334

**General Information:**
**Maximum Elevation = MSL +79 feet**
**Disposal Acreage: 14.0 acres; Closed: 0.0 acres; Open: 7.0 acres**
**Bottom Liner: Single, 60 mil HDPE**
**Leachate Collection System: Primary LCRS piping**

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.



*Printed on recycled paper.*

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

(a) A description of and cause of noncompliance; and

(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

**GENERAL CONDITIONS:**

10. The permittee agrees to comply with changes in Department rules and Florida Statues after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

(a) Determination of Best Available Control Technology (BACT)

(b) Determination of Prevention of Significant Deterioration (PSD)

(c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)

(d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

GENERAL CONDITIONS:

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class III landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-520, 62-522 and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of the Class III landfill and related facilities in accordance with the reports, plans and other information as follows:

- Household Hazardous Waste Facility Operation and Contingency Plans by Pasco County received on May 22, 1995;
- Permit/Construction Drawings and Record Drawings by CDM received on July 7, 1995;
- Permit Renewal Application received February 22, 2001;
- Responses and supporting information by CDM received July 18, and October 4, 2001;
- Landfill Operations Plan by CDM received November 1, 2001;
- Responses and supporting information by CDM received December 27, 2001;
- Replacement page and revised Figure No. 1 (for the Landfill Operations Plan) by CDM received March 25, 2002;

and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate or unless otherwise approved in writing by the Department. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

4. **Permit Renewal.** No later than **one hundred and eighty (180) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(2). Operation permit renewal shall include but not be limited to an updated Operations Plan and Site Plans for sequence of filling with cross-sections of lifts.

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated by the activities at this facility.

SPECIFIC CONDITIONS:

6. **Special Wastes.** The design, operation, and monitoring of disposal or control 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.

- White goods or other discarded materials that are held for the purposes of recycling shall be held no longer than ninety (90) days unless covered, and shall be stored in a manner so as to prevent the discharge of CFCs (such as freon) and other residuals (such as gasoline, oil, and antifreeze) which may cause air or groundwater pollution. Surface water shall be diverted away from all storage or holding areas.

- All solid wastes, recovered materials or residues handled at the site shall be stored 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.

- Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months. Compliance with the conditions of the Yard Trash Processing Facility Registration, (#051-01-YT) or its successor, shall be maintained.

- The household hazardous waste collection/storage facility shall be operated in accordance with the Operating Plan and Contingency Plan by Pasco County submitted on May 22, 1995.

- White goods, contaminated soils, waste tires, and yard trash shall not be disposed of in the lined Class III Landfill.

7. **Landfill Operation Requirements.** The permittee shall operate this facility in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the Landfill Operations Plan for Class III Landfill.

8. **Operating Personnel.** As required by F.A.C. 62-701.500(1), at least one trained operator shall be at the landfill at all times when the landfill receives waste. At least one trained spotter shall be at each working face when waste is received. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request. The permittee shall notify the Department in writing of a change of the primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Copies of the training certificates for the newly assigned individual shall also be submitted.

SPECIFIC CONDITIONS:

9. **Operation Plan and Operating Record.** The landfill shall have an operational plan which meets the requirements of F.A.C. 62-701.500(2). A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. The Department shall be notified of changes to the operational plan. The plan shall be updated as operations change and for renewal of this permit. An 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.

10. **Method and Sequence of Filling.** The method and sequence of filling shall be in accordance with the Landfill Operations Plan for Class III Landfill.

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

b. Waste shall not be placed within 5 feet of the inside top edge of the bottom liner.

c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner system at any time.

11. **Waste Records.** Waste quantity records shall be compiled monthly as described by F.A.C. 62-701.500(4), maintained on-site, and made available to the Department upon request.

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

13. **Monitoring of Waste.** Wastes shall be monitored as required by F.A.C. 62-701.500(6), including a load checking program and associated activities. The permittee shall not accept hazardous waste or any hazardous substance for disposal at this site. Hazardous waste is a waste identified in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule.

14. **Waste Handling Requirements.** All solid waste disposed of in the Class III area shall be handled as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class III area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each work week.

SPECIFIC CONDITIONS:

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). 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.

15. **Working Face.** As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area. **Interceptor berms shall be maintained around the active working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

16. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of 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.

17. **Leachate Management.** Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8), and the Landfill Operations Plan.

a. Each pump station shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and repaired, and a replacement pump installed if required for continued compliance.

b. Leachate generation reports shall be compiled monthly and submitted to the Department **quarterly**, or more frequently if requested, **by January 15th, April 15th, July 15th and October 15th each year.** Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch. Leachate discharge to areas outside of the geomembrane liner is a violation of Department rules.

**SPECIFIC CONDITIONS:**

c. No later than **one hundred and eighty (180) days prior to permit expiration**, the entire leachate collection and removal system shall be water pressure cleaned or visually or video inspected where practical to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.530, and the Landfill Operations Plan.

a. Landfill gas shall be monitored as described in Section 9 of the Landfill Operations Plan to demonstrate compliance with the criteria established in Rule 62.701.530(1)(a), F.A.C. (25% of the lower explosive limit (LEL) in on-site and off-site structures) and in Rule 62-701.530(1)(b), F.A.C. (100% of the LEL at the property boundary).

b. The results of **quarterly** monitoring required by Rule 62-701.530(2)(c), F.A.C., shall be submitted to the Department by the following dates:

| Measured During | Report Submitted By |
|---|---|
| Quarter 1 | April 15th of each year |
| Quarter 2 | July 15th of each year |
| Quarter 3 | October 15th of each year |
| Quarter 4 | January 15th of each year |

19. **Gas Monitoring Locations.** The gas monitoring locations described in Section 9 of the Landfill Operations Plan shall be sampled at least **quarterly** for concentrations of combustible gases that shall be determined as a percentage of the Lower Explosive Limit (LEL) and shall be calibrated to methane, as described in Rule 62-701.530(2),.F.A.C. Gas monitoring shall be conducted at the following locations:

| Monitoring Point | Locations Description: |
|---|---|
| Well 2MW-7 | See Figure 1 (attached) |
| Well 2MW-8 | ⇩ |
| Well 2MW-10 | ⇩ |
| Class III Scale House/Operator's Office | ⇩ |

Combustible gas sampling at the monitor wells shall be conducted in the headspace of the wells without purging the gas before collecting the sample, as described in Rule 62-701.530(2)(b), F.A.C.

SPECIFIC CONDITIONS:

20. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL in structures or 100% of the LEL at the property boundary, the permittee 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.

21. **Stormwater System Management.** Stormwater shall be managed as required by F.A.C. 62-701.400(9) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Conveyances not performing adequately shall be repaired within three (3) working days. Documentation of all inspections and repairs shall be kept on file at the facility.

22. **Recordkeeping.** Records shall be maintained as required by F.A.C. 62-701.500(13). An annual estimate of the remaining life and landfill capacity, as required by 62-701.500(13)(c), shall be maintained and submitted to the Department **annually, by April 15th of each year,** along with the most recent topographic survey or field measurements (not more than 1 year old) and supporting calculations, signed and sealed by a professional engineer.

23. **Waste Burning.** Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.300(3). Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with F.A.C. 62-296.401. Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

24. **Closure Permit Requirements.** No later than **one hundred eighty (180) days** prior to the date when wastes will no longer be accepted for active portions of the landfill, the landfill owner or operator shall submit a closure permit application to the Department in order to assure conformance with all applicable Department rules.

25. **Financial Assurance.** The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. 62-701.630.

a. All costs for closure and long-term care shall be adjusted and submitted **annually, by September 1 each year,** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

SPECIFIC CONDITIONS:

b. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this facility. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. Mosquitoes and rodents shall be controlled as so to protect the public health and welfare.

27. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, and repair and maintenance of leachate collection and removal systems. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems (including damaged or dry monitoring wells), the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

28. **Water Quality Monitoring Quality Assurance.**

a. All field work and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted in accordance with the Standard Operating Procedures (SOPs) referenced in Chapter 62-160, F.A.C., or in accordance with a Quality Assurance Plan (QAP) approved by the Department. The SOPs and QAP utilized must specifically address the types of sampling and analytical work that are required by the permit and shall be implemented by all persons performing sample collection or analysis related to this permit.

b. The field testing, sample collection and preservation, and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, or by A.S.T.M., or EPA methods shall be used.

SPECIFIC CONDITIONS:

29. **Zone of Discharge.**

a. The zone of discharge for this site shall extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the surficial aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the minimum criteria listed in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the landfill.

30. **Leachate Sampling.** Grab samples of leachate shall be collected from Tank No. 1 (WACS Testsite ID No. 2507) and Tank No. 2 (WACS Testsite ID No. 2508) to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C., as follow:

a. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Specific conductivity | Total ammonia - N |
| pH | Bicarbonate |
| Dissolved oxygen | Chlorides |
| Colors & sheens (by observation) | Iron |
| | Mercury |
| | Nitrate |
| | Sodium |
| | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix II |

b. If the annual leachate analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis of the parameters listed in Specific Condition No. 30.a., and shall notify the Department in writing. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS:**

31. **Groundwater Monitoring Well Locations.** The ground water monitoring plan is described in the submittal entitled *Groundwater Monitoring Plan Evaluation for West Pasco Class III Landfill*, prepared by Camp Dresser & McKee, Inc., dated February 2001 (revised July 2001, October 2001, and December 2001). The monitor well locations shown on attached Figure 1 are described as follows:

| Well No. | WACS Testsite ID Number | Aquifer | Designation | Location |
|---|---|---|---|---|
| 2MW3A | 19671 | Surficial | Background | See Figure 1 |
| 4MW3A | 19670 | Floridan | Background | ⇩ |
| 2MW7 | 2343 | Surficial | Detection | ⇩ |
| 4MW7 | 2340 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW8 | 2344 | Surficial | Detection | ⇩ |
| 4MW8 | 2341 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW9 | 2345 | Surficial | Detection | ⇩ |
| 4MW9 | 2342 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW10 | 2346 | Surficial | Detection | ⇩ |

All wells are to be clearly labeled and easily visible at all times. The permittee should keep all wells locked to minimize unauthorized access.

32. **Groundwater Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with Class G-II ground water standards referenced in Chapter 62-520, F.A.C. Compliance with ground water standards shall be based on analysis of unfiltered samples.

a. Ground water levels shall be measured for all sampling events described in Specific Condition No. 32.b., at all wells listed in Specific Condition No. 31, and shall be measured at a precision of plus or minus 0.01 foot. Ground water surface contour maps prepared for each sampling event shall include ground water elevations (feet NGVD) calculated for each well.

b. Each well listed in Specific Condition No. 31 shall be sampled **semi-annually** for analysis of the following parameters:

| Field Parameters |
|---|
| Static water levels before purging |
| Specific conductivity |
| pH |
| Dissolved oxygen |
| Temperature |
| Turbidity |
| Colors & sheens (by observation) |

| Laboratory Parameters |
|---|
| Total ammonia - N |
| Chlorides |
| Iron |
| Mercury |
| Nitrate |
| Sodium |
| Total dissolved solids (TDS) |
| Those parameters listed in 40 CFR Part 258, Appendix I |

SPECIFIC CONDITIONS:

33. **Groundwater Monitoring Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells, or as stated below:

a. Prior to construction of all new or replacement wells the permittee shall request and receive Department approval of a minor permit modification.

b. Construction details (record drawings) for all new or replacement wells shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (attached).

c. **Within one week of well completion** and development, each new or replacement well shall be sampled for the parameters listed in Rules 62-701.510(8)(a) and 62-701.510(8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

34. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Southwest District Office, Solid Waste Section for approval.

35. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or that exceed the Department's water quality standards or criteria in the detection wells, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring, prevention measures and corrective action as described in Rule 62-701.510(7), F.A.C.

SPECIFIC CONDITIONS:

36. **Water Quality and Leachate Reporting Requirements.** All leachate and ground water quality monitoring results shall be reported on Department Form 62-522.900(2), Groundwater Monitoring Report (attached). The permittee shall submit to the Department the results of the annual leachate quality analysis by **January 15th of each year.** The permittee shall submit to the Department the results of ground water quality analysis **January 15th and July 15th of each year** for the semi-annual periods July-December and January-June, respectively. The reports that transmit the results of ground water analysis shall contain the information listed in Rule 62-701.510(9)(a), F.A.C., including a ground water contour map representing conditions at the time of ground water sampling and a summary of any water quality standards or criteria that are exceeded. The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

37. **Water Quality Monitoring Plan Evaluation. By March 15, 2004 and no later than September 15, 2006,** the permittee shall submit an evaluation of the water quality monitoring data. The periods of time to be covered by the evaluations are summarized below:

| Water Quality Monitoring Data Evaluation Due Date | Starting Sampling Event | Ending Sampling Event |
|---|---|---|
| **March 15, 2004** | First Half 2001 | Second Half 2003 |
| **September 15, 2006** | First Half 2004 | First Half 2006 |

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of ground water contamination. Any ground water contamination that may be reported shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C.

38. **Air Requirements.**

a. An air construction permit is not required for the landfill unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

SPECIFIC CONDITIONS:

b. An air operating permit is not required unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is collocated or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity, as defined at 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and contact requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill location.

c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and CC, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to be Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.

39. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications or modifications and 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.

40. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

41. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

**SPECIFIC CONDITIONS:**

42. **Regulations.** F.A.C. 62-701, effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing any part of this permitted operation are revised, the permittee shall comply with the new rules and request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Deborah A. Getzoff
Director of District Management
Southwest District

Attachment 1

| SPECIFIC CONDITION | SUBMITTAL DUE DATE | REQUIRED ITEM |
|---|---|---|
| 4. | 60 days prior to permit expiration | Permit Renewal Application |
| 17.b. and 18. | Quarterly, by January 15th, April 15th, July 15th, and October 15th | Leachate generation reports, Gas monitoring results |
| 24. | 90 days prior to date of final waste acceptance | Closure Permit Application |
| 25. | Annually, by September 1st | Financial assurance cost estimates |
| 30. | Annually | Leachate sampled/analyzed |
| 32.b. | Every 6 months | Groundwater wells sampled/ analyzed |
| 36. | Semi-annually, by January 15th, and July 15th | Groundwater quality monitoring results |
| 36. | Annually, by January 15th | Leachate monitoring results |
| 37. | March 15, 2004 and September 15, 2006 | Evaluation of water quality monitoring plan |

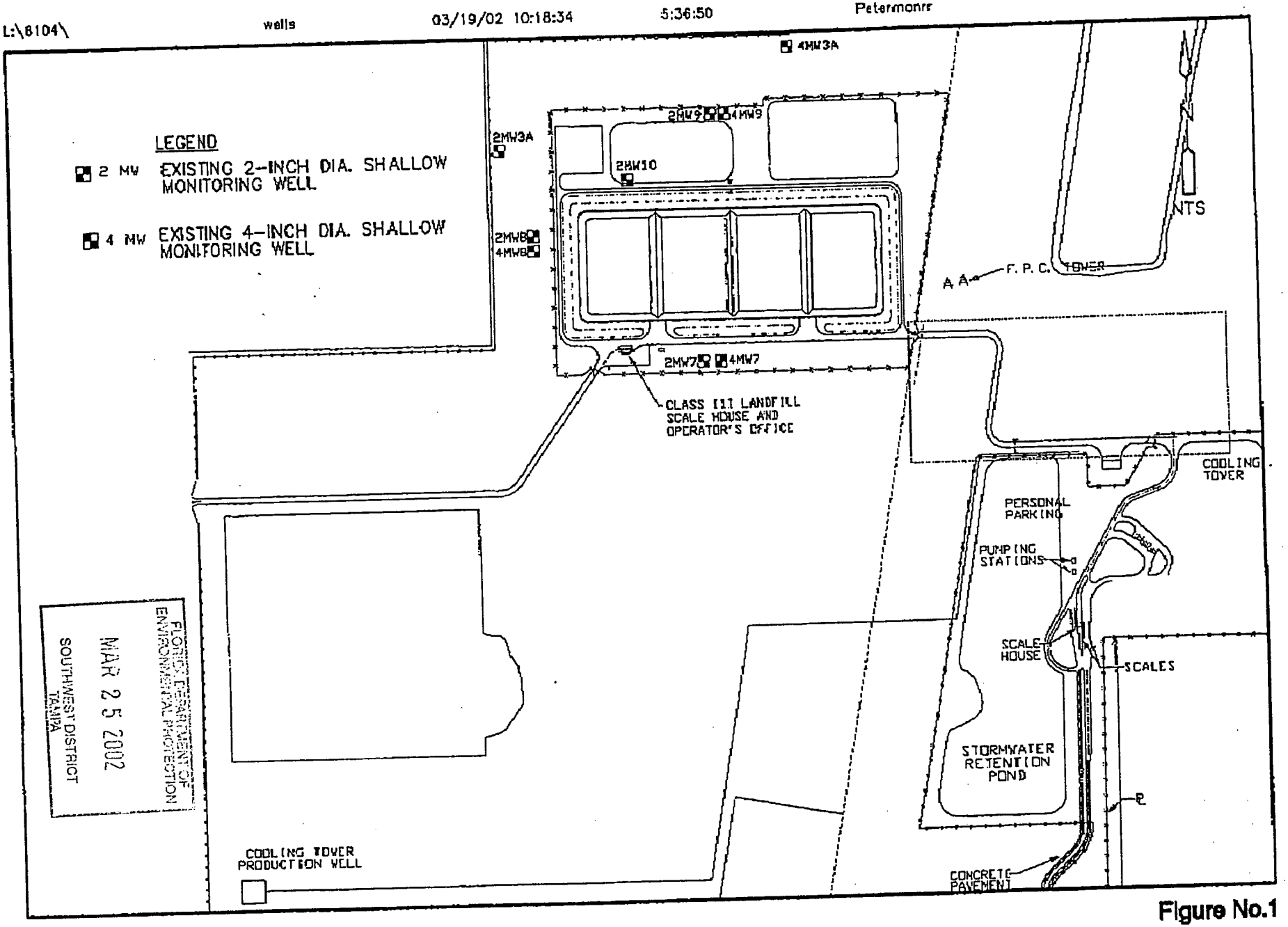



**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**



MAR-25-02 01:55PM FROM-Camp Dres & McKee Inc. 8132888787 T-841 P.003/003 F-924

DEP Form # 62-522.900(2)

Form Title Ground Water Monitoring Report

Effective Date _____

DEP Application No. _____

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

# GROUND WATER MONITORING REPORT

## Rule 62-522.600(11)

PART I GENERAL INFORMATION

(1) Facility Name _____

Address _____

City _____ Zip _____

Telephone Number (___) _____

(2) The GMS Identification Number _____

(3) DEP Permit Number _____

(4) Authorized Representative Name _____

Address _____

City _____ Zip _____

Telephone Number (___) _____

(5) Type of Discharge _____

(6) Method of Discharge _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Date: _____ _____

Signature of Owner or Authorized Representative

PART II QUALITY ASSURANCE REQUIREMENTS

Sample Organization Comp QAP # _____

Analytical Lab Comp QAP # /HRS Certification # _____

*Comp QAP # /HRS Certification # _____

Lab Name _____

Address _____

Phone Number (___) _____

PART III ANALYTICAL RESULTS

Facility GMS #: _____ Sampling Date/Time: _____

Test Site ID #: _____ Report Period: _____
(year/quarter)

Well Name: _____ Well Purged (Y/N): _____

Classification of Ground Water: _____ Well Type: ( ) Background
( ) Intermediate
( ) Compliance
( ) Other

Ground Water Elevation (NGVD): _____

or (MSL): _____

| Storet Code | Parameter Monitored | Sampling Method | Field Filtered Y/N | Analysis Method | Analysis Date/Time | * Analysis Results/Units | Detection Limits/Units |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

* Attach Laboratory Reports

DEP Form # 62-522.900(3)
Form Title MONITOR WELL COMPLETION REPORT
Effective Date _____
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

# MONITOR WELL COMPLETION REPORT

DATE: _____

INSTALLATION NAME: _____

DEP PERMIT NUMBER: _____ GMS NUMBER: _____

WELL NUMBER: _____ WELL NAME: _____

DESIGNATION: Background _____ Immediate _____ Compliance _____

LATITUDE/LONGITUDE: _____

AQUIFER MONITORED: _____

INSTALLATION METHOD: _____

INSTALLED BY: _____

TOTAL DEPTH: _____ (bls) DEPTH OF SCREEN: _____ (bls)

SCREEN LENGTH: _____ SCREEN SLOT SIZE: _____ SCREEN TYPE: _____

CASING DIAMETER: _____ CASING TYPE: _____

LENGTH OF CASING: _____ FILTER PACK MATERIAL: _____

TOP OF CASING ELEVATION (MSL): _____

GROUND SURFACE ELEVATION (MSL): _____

COMPLETION DATE: _____

DESCRIBE WELL DEVELOPMENT: _____

POST DEVELOPMENT WATER LEVER ELEVATION (MSL): _____

DATE AND TIME MEASURED: _____

REMARKS: (soils information, stratigraphy, etc.): _____

REPORT PREPARED BY: _____
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface

**Memorandum**

**Florida Department of Environmental Protection**

---

**PERMIT COVER MEMO**

**TO:** X DEBORAH GETZOFF, **Director of District Management**

**FROM/THROUGH:**

William Kutash 4/18/02 **ENVIRONMENTAL ADMINISTRATOR**
Susan Pelz 4/18/02 **SUPERVISOR**
Kim Ford 4/17/02 **ENGINEER**

**DATE:** 4/17/02

**FILE NAME:** West Pasco Class III Landfill **PERMIT #:** 26255-001-SO
**PROGRAM:** Solid Waste **COUNTY:** Pasco

**TYPE OF PERMIT ACTION:** X **ISSUE** ___ **DENY** ___ **MODIFY**
___ **TRANSFER OWNER** ___ **NOD**
___ **PUBLIC NOTICE** ___ **INTENT TO ISSUE**

**PUBLIC NOTICE PERIOD CLOSED?** N/A **PETITION FILED?** N/A

**PERMIT SUMMARY:** This permit renewal is to allow the continued operation of an existing Class III landfill, water quality monitoring and maintenance. Leachate will be collected and treated at an adjacent WWTP. Financial assurance is provided.

**PROFESSIONAL RECOMMENDATION:** X **APPROVE** ___ **DENY**

**EVALUATION SUMMARY:** The permit renewal application was received on February 22, 2001. Four deficiency letters were sent with responses received on July 18, October 4, November 1, and December 27, 2001, and January 31, 2002.

This application was deemed complete on **January 31, 2002.**

Department Processing Time = 188 days (as of April 15, 2002)
Total Processing Time (TIH) = 417 days (as of April 15, 2002)

**Day 90/30 for this Action is May 1, 2002.**

CERTIFICATION

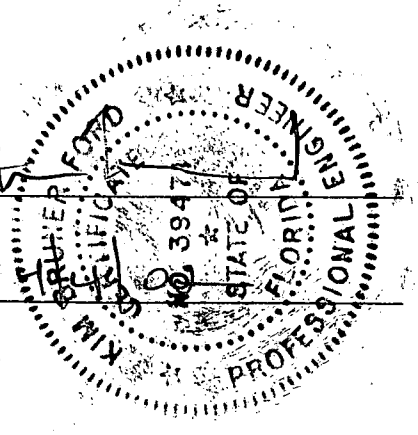
Application No. #26255-001-SO WEST PASCO CELL LANDFILL

I HEREBY CERTIFY that the engineering features described in the above referenced application (provide / ~~do not provide~~) reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 62-17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical and structural features).

(Signed)

(Date)

(Seal)



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 10 2002
SOUTHWEST DISTRICT
TAMPA

W. Pasco CIII permit

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 4, 2002

Mr. John Power
West Pasco County Class III
14230 Hays Road
Spring Hill, Florida 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2003**. The receipt number for the registration fee you paid is 379252.

You must comply with the following requirements in order to maintain qualification for the registration program:

1. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years.

2. An Annual Report for a Yard Trash Processing Facility, DEP Form 62-709.320 (7)(b), shall be submitted by April 1 of each year.

3. A registration renewal, DEP Form 62-709.320(7)(a), shall be submitted by April 1 of each year to renew this registration.

4. The facility shall be operated in accordance with Rules 62-709.320(3) and (4), Florida Administrative Code (F.A.C.). A summary of these requirements is enclosed.

If you need further information, please contact Francine Joyal at the above address, Mail Station 4565, telephone 850/921-9977, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosures

cc: Susan Pelz, Southwest District

WASTE MGT TAMPA SWD Fax:8137446125

** Transmit Conf.Report **

P.1 Mar 26 2002 15:55

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**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

J. Powers
Draft o/1 - KTO JM
2:30pm
4/4/02

**FAX**

Date: 3/26/02
Number of pages including cover sheet: 20

TO: John Power
Pasco County

FROM: Kim Ford

PHONE: (727) 8560119

PHONE: (813) 744-6100, x 382

FAX #: (727) 8613099

FAX #: (813) 744-6125

CC:

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

DRAFT W PASCO CIII
OPS PERMIT RENEWAL
- IF OK PLEASE CALL.

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
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DRAFT W PASCO CTL
OPS PERMIT RENEWAL
- IF OK PLEASE CALL.
THANKS, Kim

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

**PERMITTEE**
Pasco County Board of
County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

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**PERMIT/CERTIFICATION**
WACS Facility ID No: SWD/51/45920
Permit No: 26255-001-SO
Date of Issue:
Expiration Date:
County: Pasco
Lat/Long: 28°22'05"N
82°33'30"W
Sec/Town/Rge: 25 & 26/24S/17E
Project: West Pasco
Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 20 acres), referred to as the West Pasco Class III Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste, located at 14606 Hays Road, 3 miles north of County Road 52, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of:

1. Class III Landfill Disposal Facility

Replaces Permit No.: SO51-267334

**General Information:**
**Maximum Elevation = MSL +79 feet**
**Disposal Acreage: 14.0 acres; Closed: 0.0 acres; Open: 7.0 acres**
**Bottom Liner: Single, 60 mil HDPE**
**Leachate Collection System: Primary LCRS piping**

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.



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SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class III landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-520, 62-522 and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of the Class III landfill and related facilities in accordance with the reports, plans and other information as follows:

- Household Hazardous Waste Facility Operation and Contingency Plans by Pasco County received on May 22, 1995;
- Permit/Construction Drawings and Record Drawings by CDM received on July 7, 1995;
- Permit Renewal Application received February 22, 2001;
- Responses and supporting information by CDM received July 18, and October 4, 2001;
- Landfill Operations Plan by CDM received November 1, 2001;
- Responses and supporting information by CDM received December 27, 2001;
- Replacement page and revised Figure No. 1 (for the Landfill Operations Plan) by CDM received March 25, 2002;

and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate or unless otherwise approved in writing by the Department. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

4. **Permit Renewal.** No later than **one hundred and eighty (180) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(2). Operation permit renewal shall include but not be limited to an updated Operations Plan and Site Plans for sequence of filling with cross-sections of lifts.

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated by the activities at this facility.

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SPECIFIC CONDITIONS:

6. **Special Wastes.** The design, operation, and monitoring of disposal or control 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.

- White goods or other discarded materials that are held for the purposes of recycling shall be held no longer than ninety (90) days unless covered, and shall be stored in a manner so as to prevent the discharge of CFCs (such as freon) and other residuals (such as gasoline, oil, and antifreeze) which may cause air or groundwater pollution. Surface water shall be diverted away from all storage or holding areas.

- All solid wastes, recovered materials or residues handled at the site shall be stored 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.

- Yard trash accepted at the site shall be processed and recycled, or disposed of within twelve months. Compliance with the conditions of the Yard Trash Processing Facility Registration, (#051-01-YT) or its successor, shall be maintained.

- The household hazardous waste collection/storage facility shall be operated in accordance with the Operating Plan and Contingency Plan by Pasco County submitted on May 22, 1995.

- White goods, contaminated soils, waste tires, and yard trash shall not be disposed of in the lined Class III Landfill.

7. **Landfill Operation Requirements.** The permittee shall operate this facility in accordance with F.A.C. 62-701.500, Landfill Operation Requirements, and the Landfill Operations Plan for Class III Landfill.

8. **Operating Personnel.** As required by F.A.C. 62-701.500(1), at least one trained operator shall be at the landfill at all times when the landfill receives waste. At least one trained spotter shall be at each working face when waste is received. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request. The permittee shall notify the Department in writing of a change of the primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Copies of the training certificates for the newly assigned individual shall also be submitted.

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SPECIFIC CONDITIONS:

9. **Operation Plan and Operating Record.** The landfill shall have an operational plan which meets the requirements of F.A.C. 62-701.500(2). A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. The Department shall be notified of changes to the operational plan. The plan shall be updated as operations change and for renewal of this permit. An 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.

10. **Method and Sequence of Filling.** The method and sequence of filling shall be in accordance with the Landfill Operations Plan for Class III Landfill.

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

b. Waste shall not be placed within 5 feet of the inside top edge of the bottom liner.

c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner system at any time.

11. **Waste Records.** Waste quantity records shall be maintained as required by F.A.C. 62-701.500(4) and submitted **quarterly; by Jan. 15th, April 15th, July 15th, and Oct. 15th.**

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

13. **Monitoring of Waste.** Wastes shall be monitored as required by F.A.C. 62-701.500(6), including a load checking program and associated activities. The permittee shall not accept hazardous waste or any hazardous substance for disposal at this site. Hazardous waste is a waste identified in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule.

14. **Waste Handling Requirements.** All solid waste disposed of in the Class III area shall be handled as required by F.A.C. 62-701.500(7).

a. Initial cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(e) so as to protect the public health and welfare. All solid waste disposed of in the Class III area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department, at the end of each work week.

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SPECIFIC CONDITIONS:

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). 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.

15. **Working Face.** As required by F.A.C. 62-701.500(7)(d), the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area. **Interceptor berms shall be maintained around the active working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste.

16. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of 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.

17. **Leachate Management.** Leachate shall be managed in accordance with the requirements of F.A.C. 62-701.500(8), and the Landfill Operations Plan.

a. Each pump station shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and repaired, and a replacement pump installed if required for continued compliance.

b. Leachate generation reports shall be compiled monthly and submitted to the Department at least quarterly. Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, stored or impounded, recirculated, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch. Leachate discharge to areas outside of the geomembrane liner is a violation of Department rules.

SPECIFIC CONDITIONS:

c. No later than **one hundred and eighty (180) days prior to permit expiration**, the entire leachate collection and removal system shall be water pressure cleaned or visually or video inspected where practical to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.530, and the Landfill Operations Plan.

a. Landfill gas shall be monitored as described in Section 9 of the Landfill Operations Plan to demonstrate compliance with the criteria established in Rule 62.701.530(1)(a), F.A.C. (25% of the lower explosive limit (LEL) in on-site and off-site structures) and in Rule 62-701.530(1)(b), F.A.C. (100% of the LEL at the property boundary).

b. The results of **quarterly** monitoring required by Rule 62-701.530(2)(c), F.A.C., shall be submitted to the Department by the following dates:

| Measured During | Report Submitted By |
|---|---|
| Quarter 1 | April 15th of each year |
| Quarter 2 | July 15th of each year |
| Quarter 3 | October 15th of each year |
| Quarter 4 | January 15th of each year |

19. **Gas Monitoring Locations.** The gas monitoring locations described in Section 9 of the Landfill Operations Plan shall be sampled at least **quarterly** for concentrations of combustible gases that shall be determined as a percentage of the Lower Explosive Limit (LEL) and shall be calibrated to methane, as described in Rule 62-701.530(2),.F.A.C. Gas monitoring shall be conducted at the following locations:

| Monitoring Point | Locations Description: |
|---|---|
| Well 2MW-7 | See Figure 1 (attached) |
| Well 2MW-8 | ⇩ |
| Well 2MW-10 | ⇩ |
| Class III Scale House/Operator's Office | ⇩ |

Combustible gas sampling at the monitor wells shall be conducted in the headspace of the wells without purging the gas before collecting the sample, as described in Rule 62-701.530(2)(b), F.A.C.

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SPECIFIC CONDITIONS:

20. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL in structures or 100% of the LEL at the property boundary, the permittee 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.

21. **Stormwater System Management.** Stormwater shall be managed as required by F.A.C. 62-701.400(9) to meet applicable standards of F.A.C. 62-302 and 62-330. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected at least weekly to verify adequate performance. Conveyances not performing adequately shall be repaired within three (3) working days. Documentation of all inspections and repairs shall be kept on file at the facility.

22. **Recordkeeping.** Records shall be maintained as required by F.A.C. 62-701.500(13). An annual estimate of the remaining life and landfill capacity, as required by 62-701.500(13)(c), shall be maintained and submitted to the Department **annually, by April 15th of each year,** along with the most recent topographic survey or field measurements (not more than 1 year old) and supporting calculations, signed and sealed by a professional engineer.

23. **Waste Burning.** Open burning of solid waste is prohibited except in accordance with F.A.C. 62-701.300(3). Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with F.A.C. 62-296.401. Any accidental fires which require longer than one (1) hour to extinguish must be promptly reported to the Department of Environmental Protection.

24. **Closure Permit Requirements.** No later than **one hundred eighty (180) days** prior to the date when wastes will no longer be accepted for active portions of the landfill, the landfill owner or operator shall submit a closure permit application to the Department in order to assure conformance with all applicable Department rules.

25. **Financial Assurance.** The permittee shall provide financial assurance for this landfill site in accordance with F.A.C. 62-701.630.

a. All costs for closure and long-term care shall be adjusted and submitted **annually, by September 1 each year,** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

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SPECIFIC CONDITIONS:

b. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this facility. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. Mosquitoes and rodents shall be controlled as so to protect the public health and welfare.

27. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, and repair and maintenance of leachate collection and removal systems. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems (including damaged or dry monitoring wells), the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

28. **Water Quality Monitoring Quality Assurance.**

a. All field work and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted in accordance with the Standard Operating Procedures (SOPs) referenced in Chapter 62-160, F.A.C., or in accordance with a Quality Assurance Plan (QAP) approved by the Department. The SOPs and QAP utilized must specifically address the types of sampling and analytical work that are required by the permit and shall be implemented by all persons performing sample collection or analysis related to this permit.

b. The field testing, sample collection and preservation, and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, or by A.S.T.M., or EPA methods shall be used.

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SPECIFIC CONDITIONS:

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29. **Zone of Discharge.**

a. The zone of discharge for this site shall extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the surficial aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the minimum criteria listed in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the landfill.

30. **Leachate Sampling.** Grab samples of leachate shall be collected from Tank No. 1 (WACS Testsite ID No. 2507) and Tank No. 2 (WACS Testsite ID No. 2508) to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C., as follow:

a. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Specific conductivity | Total ammonia - N |
| pH | Bicarbonate |
| Dissolved oxygen | Chlorides |
| Colors & sheens (by observation) | Iron |
| | Mercury |
| | Nitrate |
| | Sodium |
| | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix II |

b. If the annual leachate analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis of the parameters listed in Specific Condition No. 30.a., and shall notify the Department in writing. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS:**

31. **Groundwater Monitoring Well Locations.** The ground water monitoring plan is described in the submittal entitled *Groundwater Monitoring Plan Evaluation for West Pasco Class III Landfill*, prepared by Camp Dresser & McKee, Inc., dated February 2001 (revised July 2001, October 2001, and December 2001). The monitor well locations shown on attached Figure 1 are described as follows:

| Well No. | WACS Testsite ID Number | Aquifer | Designation | Location |
|---|---|---|---|---|
| 2MW3A | 19671 | Surficial | Background | See Figure 1 |
| 4MW3A | 19670 | Floridan | Background | ⇩ |
| 2MW7 | 2343 | Surficial | Detection | ⇩ |
| 4MW7 | 2340 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW8 | 2344 | Surficial | Detection | ⇩ |
| 4MW8 | 2341 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW9 | 2345 | Surficial | Detection | ⇩ |
| 4MW9 | 2342 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW10 | 2346 | Surficial | Detection | ⇩ |

All wells are to be clearly labeled and easily visible at all times. The permittee should keep all wells locked to minimize unauthorized access.

32. **Groundwater Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with Class G-II ground water standards referenced in Chapter 62-520, F.A.C. Compliance with ground water standards shall be based on analysis of unfiltered samples.

a. Ground water levels shall be measured for all sampling events described in Specific Condition No. 32.b., at all wells listed in Specific Condition No. 31, and shall be measured at a precision of plus or minus 0.01 foot. Ground water surface contour maps prepared for each sampling event shall include ground water elevations (feet NGVD) calculated for each well.

b. Each well listed in Specific Condition No. 31 shall be sampled **semi-annually** for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Static water levels before purging | Total ammonia - N |
| Specific conductivity | Chlorides |
| pH | Iron |
| Dissolved oxygen | Mercury |
| Temperature | Nitrate |
| Turbidity | Sodium |
| Colors & sheens (by observation) | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix I |

SPECIFIC CONDITIONS: DRAFT

33. **Groundwater Monitoring Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells, or as stated below:

a. Prior to construction of all new or replacement wells the permittee shall request and receive Department approval of a minor permit modification.

b. Construction details (record drawings) for all new or replacement wells shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (attached).

c. **Within one week of well completion** and development, each new or replacement well shall be sampled for the parameters listed in Rules 62-701.510(8)(a) and 62-701.510(8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

34. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Southwest District Office, Solid Waste Section for approval.

35. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or that exceed the Department's water quality standards or criteria in the detection wells, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring, prevention measures and corrective action as described in Rule 62-701.510(7), F.A.C.

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SPECIFIC CONDITIONS:

36. **Water Quality and Leachate Reporting Requirements.** All leachate and ground water quality monitoring results shall be reported on Department Form 62-522.900(2), Groundwater Monitoring Report (attached). The permittee shall submit to the Department the results of the annual leachate quality analysis by **January 15th of each year.** The permittee shall submit to the Department the results of ground water quality analysis **January 15th and July 15th of each year** for the semi-annual periods July-December and January-June, respectively. The reports that transmit the results of ground water analysis shall contain the information listed in Rule 62-701.510(9)(a), F.A.C., including a ground water contour map representing conditions at the time of ground water sampling and a summary of any water quality standards or criteria that are exceeded. The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

37. **Water Quality Monitoring Plan Evaluation. By March 15, 2004 and no later than September 15, 2006,** the permittee shall submit an evaluation of the water quality monitoring data. The periods of time to be covered by the evaluations are summarized below:

| Water Quality Monitoring Data Evaluation Due Date | Starting Sampling Event | Ending Sampling Event |
|---|---|---|
| **March 15, 2004** | First Half 2001 | Second Half 2003 |
| **September 15, 2006** | First Half 2004 | First Half 2006 |

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of ground water contamination. Any ground water contamination that may be reported shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C.

38. **Air Requirements.**

a. An air construction permit is not required for the landfill unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

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SPECIFIC CONDITIONS:

b. An air operating permit is not required unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is collocated or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity, as defined at 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and contact requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill location.

c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and CC, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to be Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.

39. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications or modifications and 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.

40. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

41. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

**SPECIFIC CONDITIONS:**

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42. **Regulations.** F.A.C. 62-701, effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing any part of this permitted operation are revised, the permittee shall comply with the new rules and request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

DRAFT

Deborah A. Getzoff
Director of District Management
Southwest District

Attachment 1

| SPECIFIC CONDITION | SUBMITTAL DUE DATE | REQUIRED ITEM |
|---|---|---|
| 4. | 60 days prior to permit expiration | Permit Renewal Application |
| 11. and 18. | Quarterly, by January 15th, April 15th, July 15th, and October 15th | Waste quantity reports, Gas monitoring results |
| 24. | 90 days prior to date of final waste acceptance | Closure Permit Application |
| 25. | Annually, by September 1st | Financial assurance cost estimates |
| 30. | Annually | Leachate sampled/analyzed |
| 32.b. | Every 6 months | Groundwater wells sampled/ analyzed |
| 36. | Semi-annually, by January 15th, and July 15th | Groundwater quality monitoring results |
| 36. | Annually, by January 15th | Leachate monitoring results |
| 37. | March 15, 2004 and September 15, 2006 | Evaluation of water quality monitoring plan |

DRAFT

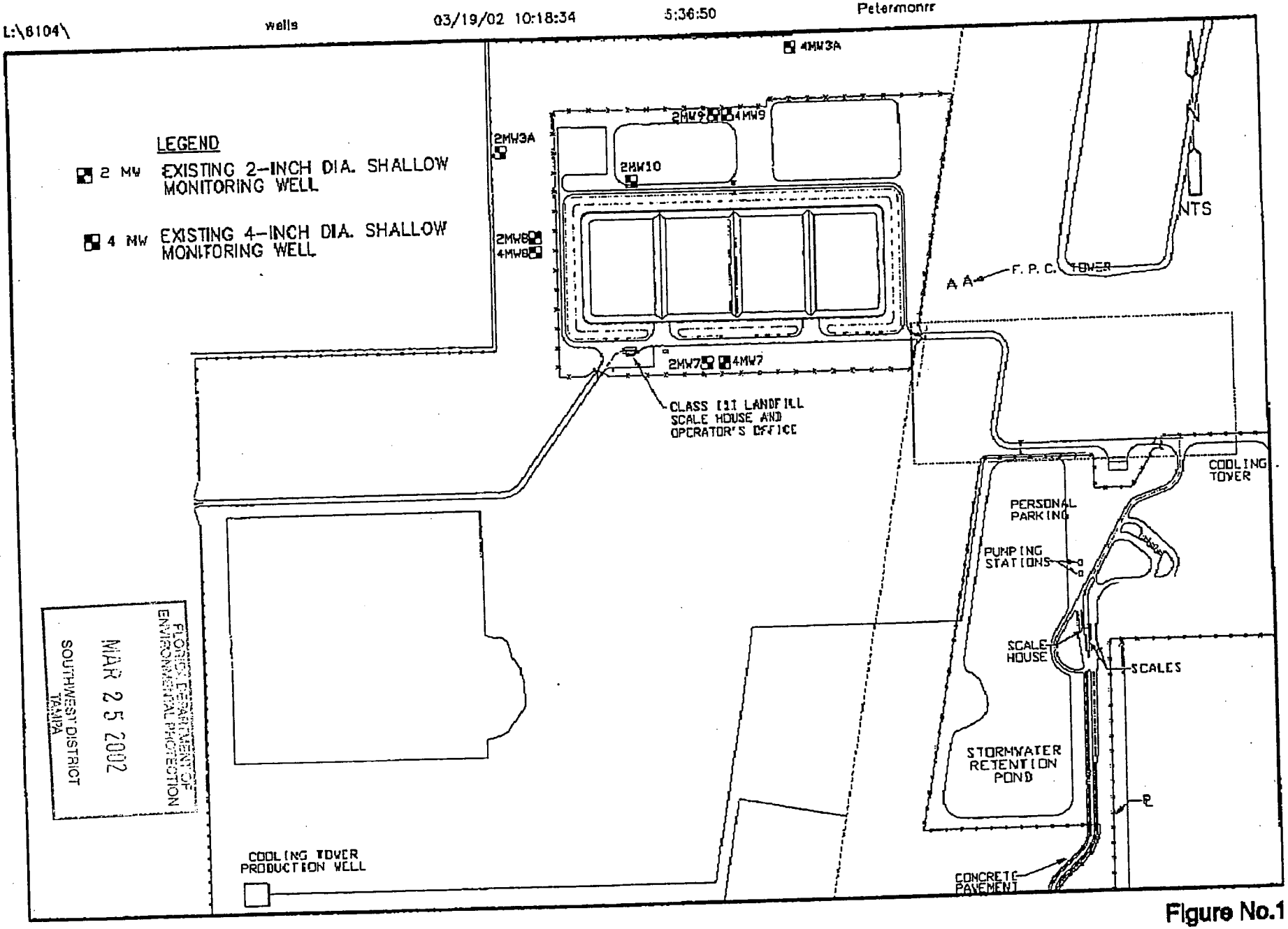


**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

**CDM** Camp Dresser & McKee

MAR-25-02 01:55PM FROM-Camp Dresr McKee Inc. 8132888787 T-841 P.003/003 F-924

DEP Form # 62-522.900(2)

Form Title Ground Water Monitoring Report

Effective Date _____

DEP Application No. _____

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

# GROUND WATER MONITORING REPORT

## Rule 62-522.600(11)

PART I GENERAL INFORMATION

(1) Facility Name _____

Address _____

City _____ Zip _____

Telephone Number ( ) _____

(2) The GMS Identification Number _____

(3) DEP Permit Number _____

(4) Authorized Representative Name _____

Address _____

City _____ Zip _____

Telephone Number ( ) _____

(5) Type of Discharge _____

(6) Method of Discharge _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Date: _____ _____

Signature of Owner or Authorized Representative

PART II QUALITY ASSURANCE REQUIREMENTS

Sample Organization Comp QAP # _____

Analytical Lab Comp QAP # /HRS Certification # _____

*Comp QAP # /HRS Certification # _____

Lab Name _____

Address _____

Phone Number ( ) _____

PART III ANALYTICAL RESULTS

Facility GMS #:_____ Sampling Date/Time: _____

Test Site ID #: _____ Report Period: _____
(year/quarter)

Well Name: _____ Well Purged (Y/N):_____

Classification of Ground Water:_____ Well Type: ( ) Background
( ) Intermediate
( ) Compliance
( ) Other

Ground Water Elevation (NGVD): _____

or (MSL):_____

| Storet Code | Parameter Monitored | Sampling Method | Field Filtered Y/N | Analysis Method | Analysis Date/Time | * Analysis Results/Units | Detection Limits/Units |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

* Attach Laboratory Reports

DEP Form # 62-522.900(3)
Form Title MONITOR WELL COMPLETION REPORT
Effective Date _____
DEP Application No. _____ (Filled in by DEP)

Florida Department of Environmental Protection
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

# MONITOR WELL COMPLETION REPORT

DATE: _____

INSTALLATION NAME: _____

DEP PERMIT NUMBER: _____ GMS NUMBER: _____

WELL NUMBER: _____ WELL NAME: _____

DESIGNATION: Background _____ Immediate _____ Compliance _____

LATITUDE/LONGITUDE: _____

AQUIFER MONITORED: _____

INSTALLATION METHOD: _____

INSTALLED BY: _____

TOTAL DEPTH: _____ (bls) DEPTH OF SCREEN: _____ (bls)

SCREEN LENGTH: _____ SCREEN SLOT SIZE: _____ SCREEN TYPE: _____

CASING DIAMETER: _____ CASING TYPE: _____

LENGTH OF CASING: _____ FILTER PACK MATERIAL: _____

TOP OF CASING ELEVATION (MSL): _____

GROUND SURFACE ELEVATION (MSL): _____

COMPLETION DATE: _____

DESCRIBE WELL DEVELOPMENT: _____

POST DEVELOPMENT WATER LEVER ELEVATION (MSL): _____

DATE AND TIME MEASURED: _____

REMARKS: (soils information, stratigraphy, etc.): _____

REPORT PREPARED BY: _____
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface

# CDM Fax

**CDM**

1715 North Westshore Blvd., Suite 875
Tampa, Florida 33607
(813) 281-2900
(813) 288-8787

| | | | |
|---|---|---|---|
| **To:** | Kim Ford | **From:** | Jason Gorrie |
| **Organization:** | FDEP | **Date:** | ~~March 22, 2002~~ March 25, 2002 |
| **Fax No.:** | 744-6125 | **Time:** | ~~10:33 AM~~ 1:04 PM |
| **Re:** | West Pasco Class III | **Job #:** | |
| **# of Pages:** (including cover sheet) | 3 | | |

**Message:**

Pumps serving both leachate holding tanks are automatically activated and deactivated by level switches, as shown in Figure 3. The five float-switches are designated as follows:

a. Low-low level alarm/shutoff, to protect pump motors.

b. Low level shutoff to deactivate pumping cycle.

c. Activates pumps for pumping cycle.

d. Float for future use (not used at this time).

e. High-high level alarms (set at approximately 5'0 below the top of leachate holding tank).

At the high-high alarm, the pump system will be repaired and Pasco County will utilize their tanker fleet to pump and haul leachate to a wastewater treatment plant as necessary to prevent overflow.

The leachate holding tanks are metered and recorded in daily logs. In addition, the tanks are sampled and analyzed for the parameters listed at 62-701.510(8)(a) semi-annually by the Pasco County Environmental Services Laboratory. Rainfall is recorded by visual rain gauges and is recorded on the daily leachate log sheets. Videotaping of the leachate collection system is conducted every five years in accordance with Rule 62-701.500(8)(h), F.A.C. The volume of leachate generated and rainfall data is reported each month to the Florida Department of Environmental Protection. Results of leachate quality samples are reported to the Department semi-annually.

## 9.Routine Gas Monitoring Program

Of the Class III Landfill disposal's four units, only one unit (No. 1) is currently in use for acceptance of C&D material. The Class III C&D Landfill is situated in excess of 750 feet from all property boundaries, with the closest off-site structure being in excess of 1,000 feet. The Class III Scale House and Landfill Operator's Office, the closest structure, will be checked via gas meter quarterly and the results will be reported to the Department. Existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 will be used for conducting quarterly subsurface landfill gas monitoring adjacent to Cells 1 and 2. If the methane gas levels exceed the lower explosive limits specified by the FAC, the operator shall:

a. Notify his supervisor, who will take measures (if necessary) to protect health and safety.

b. Submit to the department within seven days a remediation plan.



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAR 2 5 2002
SOUTHWEST DISTRICT
TAMPA

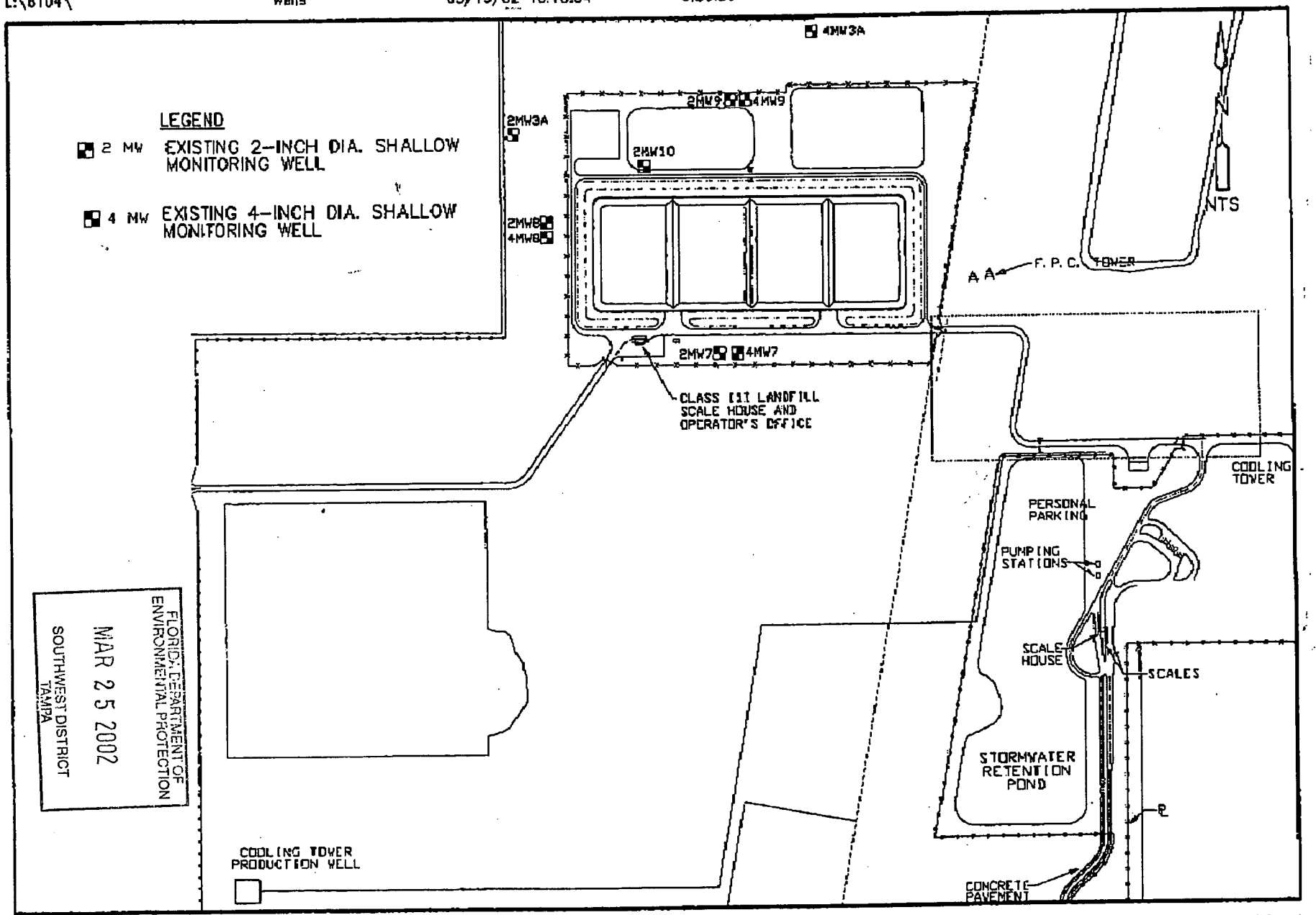


**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

CDM Camp Dresser & McKee

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

SWD/SI/45920

**PERMITTEE**
Pasco County Board of
County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

**PERMIT/CERTIFICATION**
WACS Facility ID No:
Permit No: 26255-001-SO
Date of Issue:
Expiration Date:
County: Pasco
Lat/Long: 28°22'05"N
82°33'30"W
Sec/Town/Rge: 25 & 26/24S/17E
Project: West Pasco
Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate and maintain a landfill and related facilities (approximately 20 acres), referred to as the West Pasco Class III Landfill, subject to the specific and general conditions attached, for management and disposal of solid waste, located at 14606 Hays Road, 3 miles north of County Road 52, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of:

1. Class III Landfill Disposal Facility

Replaces Permit No.: SO51-267334

**General Information:**
**Maximum Elevation = MSL +79 feet**
**Disposal Acreage: 14.0 acres; Closed: 0.0 acres; Open: 7.0 acres**
**Bottom Liner: Single, 60 mil HDPE**
**Leachate Collection System: Primary LCRS piping**

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.



*"More Protection, Less Process"*

*Printed on recycled paper.*

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

John READY FOR YOUR CONDITIONS
KW
1/25

**PERMITTEE**
Pasco County Board of
County Commissioners
c/o Mr. John Power
7530 Little Road
West Pasco Government Center
New Port Richey, FL 34654

**PERMIT/CERTIFICATION**
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82°33'30"W
Sec/Town/Rge: 25 & 26/24S/17E
Project: West Pasco
Class III Landfill

SEE ATTACHED CONDITIONS
3/20/02

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PERMITTEE: Pasco County Board of County Commissioners
Mr. John Power

PERMIT NO: 26255-001-SO
West Pasco Class III Landfill

SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class III landfill and shall be operated in accordance with all applicable requirements of Chapters 62-4, 62-520, 62-522 and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of the Class III landfill and related facilities in accordance with the reports, plans and other information as follows:

- Household Hazardous Waste Facility Operation and Contingency Plans by Pasco County submitted on May 22, 1995;
- Permit/Construction Drawings and Record Drawings by CDM submitted on July 7, 1995;
- Permit Renewal Application received February 22, 2001;
- Responses and supporting information by CDM received July 18, and October 4, 2001;
- Landfill Operations Plan by CDM received November 1, 2001;
- Responses and supporting information by CDM received December 27, 2001

and in accordance with all applicable requirements of Department rules.

3. **Permit Modifications.** Any activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate or unless otherwise approved in writing by the Department. Permits shall be modified in accordance with the requirements of 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

4. **Permit Renewal.** No later than **one hundred and eighty (180) days** before the expiration of the Department Permit, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by F.A.C. 62-701.330(2). Operation permit renewal shall include but not be limited to an updated Operations Plan and Site Plans for sequence of filling with cross-sections of lifts.

5. **Prohibitions.** The prohibitions of F.A.C. 62-701.300 shall not be violated by the activities at this facility.

SPECIFIC CONDITIONS:

c. No later than **one hundred and eighty (180) days prior to permit expiration**, the entire leachate collection and removal system shall be water pressure cleaned or visually or video inspected where practical to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office to demonstrate adequate performance prior to permit renewal.

18. **Gas Monitoring.** Landfill gas shall be monitored as required by F.A.C. 62-701.500(9), 62-701.530, and the Landfill Operations Plan.

a. Landfill gas shall be monitored as described in Section 9 of the Landfill Operations Plan to demonstrate compliance with the criteria established in Rule 62.701.530(1)(a), F.A.C. (25% of the lower explosive limit (LEL) in on-site and off-site structures) and in Rule 62-701.530(1)(b), F.A.C. (100% of the LEL at the property boundary).

b. The results of **quarterly** monitoring required by Rule 62-701.530(2)(c), F.A.C., shall be submitted to the Department by the following dates:

| Measured During | Report Submitted By |
|---|---|
| Quarter 1 | April 15th of each year |
| Quarter 2 | July 15th of each year |
| Quarter 3 | October 15th of each year |
| Quarter 4 | January 15th of each year |

19. **Gas Monitoring Locations.** The gas monitoring locations described in Section 9 of the Landfill Operations Plan and as shown on the related figures shall be sampled at least **quarterly** for the Lower Explosive Limit (LEL) of methane, as described in F.A.C. Rule 62-701.530(2).

| Monitoring Point | Locations: |
|---|---|
| Active Landfill | GS-1S and GS-1E, see Figure 9-1 |
| Closed 60-acre Landfill | See Figure 9-1 (attached) |
| Scalehouse | See Figure 9-3 (attached) |
| Administrative Building | 2 sampling points |
| Leachate Treatment Electrical Room | 1 sampling points |

RELOCATED

The listed gas monitoring probes are to be clearly labeled and easily visible at all times.

DRAFT

COMMENTS?

**SPECIFIC CONDITIONS:**

19. **Gas Monitoring Locations.** The gas monitoring locations described in Section 9 of the Landfill Operations Plan ~~(dated November 1, 2001, revised March 20, 2002)~~ shall be sampled at least **quarterly** for concentrations of combustible gases that shall be determined as a percentage of the Lower Explosive Limit (LEL) and shall be calibrated to methane, as described in Rule 62-701.530(2), F.A.C. Gas monitoring shall be conducted at the following locations:

| Monitoring Point | Location Description |
|---|---|
| Well 2MW-7 | See Figure 1 (attached) |
| Well 2MW-8 | ⇩ |
| Well 2MW-10 | ⇩ |
| Class III Scale House/Operator's Office | ⇩ |

Combustible gas sampling at the monitor wells shall be conducted in the headspace of the wells without purging the gas before collecting the sample, as described in Rule 62-701.530(2)(b), F.A.C.

28. **Water Quality Monitoring Quality Assurance.**

DRAFT

a. All field work and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted in accordance with the Standard Operating Procedures (SOPs) referenced in Chapter 62-160, F.A.C., or in accordance with a Quality Assurance Plan (QAP) approved by the Department. The SOPs and QAP utilized must specifically address the types of sampling and analytical work that are required by the permit and shall be implemented by all persons performing sample collection or analysis related to this permit.

b. The field testing, sample collection and preservation, and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, or by A.S.T.M., or EPA methods shall be used.

29. **Zone of Discharge.**

DRAFT

a. The zone of discharge for this site shall extend horizontally 100 feet from the limits ~~of the limits~~ of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the surficial aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the minimum criteria listed in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the landfill.

DRAFT

**SPECIFIC CONDITIONS:**

30. **Leachate Sampling.** Grab samples of leachate shall be collected from Tank No. 1 (WACS Testsite ID No. 2507) and Tank No. 2 (WACS Testsite ID No. 2508) to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C., as follow:

a. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Specific conductivity | Total ammonia - N |
| pH | Bicarbonate |
| Dissolved oxygen | Chlorides |
| Colors & sheens (by observation) | Iron |
| | Mercury |
| | Nitrate |
| | Sodium |
| | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix II |

b. If the annual leachate analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis of the parameters listed in Specific Condition No. 30.a., and shall notify the Department in writing. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

DRAFT

31. **Groundwater Monitoring Well Locations.** The ground water monitoring plan is described in the submittal entitled *Groundwater Monitoring Plan Evaluation for West Pasco Class III Landfill*, prepared by Camp Dresser & McKee, Inc., dated February 2001 (revised July 2001, October 2001, and December 2001). The monitor well locations shown on attached Figure 1 ~~(received March 20, 2002)~~ are described as follows:

| Well No. | WACS Testsite ID Number | Aquifer | Designation | Location |
|---|---|---|---|---|
| 2MW3A | 19671 | Surficial | Background | See Figure 1 |
| 4MW3A | 19670 | Floridan | Background | ⇩ |
| 2MW7 | 2343 | Surficial | Detection | ⇩ |
| 4MW7 | 2340 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW8 | 2344 | Surficial | Detection | ⇩ |
| 4MW8 | 2341 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW9 | 2345 | Surficial | Detection | ⇩ |
| 4MW9 | 2342 | Floridan | Horizontal Detection/ Vertical Compliance | ⇩ |
| 2MW10 | 2346 | Surficial | Detection | ⇩ |

All wells are to be clearly labeled and easily visible at all times. The permittee should keep all wells locked to minimize unauthorized access.

DRAFT

DRAFT

**SPECIFIC CONDITIONS:**

32. **Groundwater Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with Class G-II ground water standards referenced in Chapter 62-520, F.A.C. Compliance with ground water standards shall be based on analysis of unfiltered samples.

a. Ground water levels shall be measured for all sampling events described in Specific Condition No. 32.b., at all wells listed in Specific Condition No. 31, and shall be measured at a precision of plus or minus 0.01 foot. Ground water surface contour maps prepared for each sampling event shall include ground water elevations (feet NGVD) calculated for each well.

b. Each well listed in Specific Condition No. 31 shall be sampled **semi-annually** for analysis of the following parameters:

| Field Parameters | Laboratory Parameters |
|---|---|
| Static water levels before purging | Total ammonia - N |
| Specific conductivity | Chlorides |
| pH | Iron |
| Dissolved oxygen | Mercury |
| Temperature | Nitrate |
| Turbidity | Sodium |
| Colors & sheens (by observation) | Total dissolved solids (TDS) |
| | Those parameters listed in 40 CFR Part 258, Appendix I |

DRAFT

33. **Groundwater Monitoring Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells, or as stated below:

a. Prior to construction of all new or replacement wells the permittee shall request and receive Department approval of a minor permit modification.

b. Construction details (record drawings) for all new or replacement wells shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (attached).

c. **Within one week of well completion** and development, each new or replacement well shall be sampled for the parameters listed in Rules 62-701.510(8)(a) and 62-701.510(8)(d), F.A.C.

DRAFT

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

**SPECIFIC CONDITIONS:** DRAFT

34. **Well Abandonment.** All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment.** A written request for exemption to the abandonment of a well must be submitted to the Department's Southwest District Office, Solid Waste Section for approval.

35. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or that exceed the Department's water quality standards or criteria in the detection wells, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring, prevention measures and corrective action as described in Rule 62-701.510(7), F.A.C.

DRAFT

36. **Water Quality and Leachate Reporting Requirements.** All leachate and ground water quality monitoring results shall be reported on Department Form 62-522.900(2), Groundwater Monitoring Report (attached). The permittee shall submit to the Department the results of the annual leachate quality analysis by **January 15th of each year.** The permittee shall submit to the Department the results of ground water quality analysis **January 15th and July 15th of each year** for the semi-annual periods July-December and January-June, respectively. The reports that transmit the results of ground water analysis shall contain the information listed in Rule 62-701.510(9)(a), F.A.C., including a ground water contour map representing conditions at the time of ground water sampling and a summary of any water quality standards or criteria that are exceeded. The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

37. **Water Quality Monitoring Plan Evaluation. By March 15, 2004 and no later than September 15, 2006,** the permittee shall submit an evaluation of the water quality monitoring data. The periods of time to be covered by the evaluations are summarized below: DRAFT

| Water Quality Monitoring Data Evaluation Due Date | Starting Sampling Event | Ending Sampling Event |
|---|---|---|
| **March 15, 2004** | First Half 2001 | Second Half 2003 |
| **September 15, 2006** | First Half 2004 | First Half 2006 |

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of ground water contamination. Any ground water contamination that may be reported shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C.

SPECIFIC CONDITIONS:

b. Proof that the financial assurance has been funded adequately shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

26. **Control of Nuisance Conditions.** The operating authority shall be responsible for the control of odors and fugitive particulates arising from this facility. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance. Mosquitoes and rodents shall be controlled as so to protect the public health and welfare.

27. **Facility Maintenance and Repair.** The site shall be properly maintained including erosion control, maintenance of grass cover, prevention of ponding, groundwater monitoring system repairs, and repair and maintenance of leachate collection and removal systems. In the event of damage to any portion of the landfill site facilities or failure of any part of the landfill systems (including damaged or dry monitoring wells), the permittee shall immediately **(within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written detailed notification shall be submitted to the Department **within seven (7) days** following the occurrence.

28. **Water Quality Monitoring Quality Assurance.**

a. All field and laboratory work done in connection with the facility's Water Quality Monitoring Plan shall be conducted by a firm possessing a Comprehensive Quality Assurance Plan approved by the Department to meet the requirements of F.A.C. 62-160. The Quality Assurance Plan must specifically address the types of sampling and analytical work that is required by the permit. The Quality Assurance Plan shall be required of all persons performing sampling or analysis, and shall be followed by all persons collecting or analyzing samples related to this permit. Documentation of an approved QAP shall be submitted **annually** to the Department with the groundwater sampling report due **January 15th**. Documentation shall include the completed signature page and the Table of Contents of the approved plan.

REVISED

**SPECIFIC CONDITIONS:**

b. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with methods approved by the Department in accordance with F.A.C. 62-4.246 and 62-160. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

29. **Zone of Discharge.**

a. The zone of discharge for this site shall extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the first occurring aquifer.

REVISED

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II groundwaters will not be exceeded at the boundary of the zone of discharge according to F.A.C. 62-520.420.

30. **Leachate Sampling.** Leachate shall be sampled from Tank 1 and analyzed **annually** for the following monitoring parameters:

| Field parameters | Laboratory parameters |
|---|---|
| Specific Conductivity | Total Ammonia - N |
| pH | Bicarbonate |
| Dissolved oxygen | Chlorides |
| Colors, sheens (by observation) | Iron |
| | Mercury |
| | Arsenic |
| | Cadmium |
| | Chromium |
| | Lead |
| | Nitrate |
| | Sodium |
| | Total Dissolved Solids (TDS) |
| | Parameters listed in EPA Methods 601 and 602 |

REVISED

If the wastes types accepted vary from the waste types listed in the permit renewal application for Cells 1 and 2, or waste types other than yard trash are stored in Cells 3 and/or 4, the permittee must notify the FDEP within 7 days. Within 30 days of this notification, the permittee must provide an evaluation of the leachate monitoring program to account for the new waste types.

**90 days prior to permit renewal**, leachate from Tanks 1 and 2 shall be analyzed for the parameters listed in F.A.C. Rule 62-701.510(8)(c) and (d).

DO WE GET THIS ?

**SPECIFIC CONDITIONS:**

31. **Groundwater Monitoring Well Locations.** The Groundwater Monitoring System is designed and constructed in accordance with the plans on file in the Southwest District Office. The active ground water monitoring wells and piezometers are located as per plan sheets number 3 and 4, submitted on November 28, 1988 by CDM, as follows:

| Well Number | Aquifer | Location |
|---|---|---|
| 4MW3A | Floridan (background) | see Figure 1 attached |
| 2MW3 | Surficial (background) | " |
| 4MW7 | Floridan | " |
| 2MW7 | Surficial | " |
| 4MW8 | Floridan | " |
| 2MW8 | Surficial | " |
| 4MW9 | Floridan | " |
| 2MW9 | Surficial | " |
| 2MW10 | Surficial | " |

All wells are to be clearly labeled and easily visible at all times. A surveyed drawing shall be submitted showing the location of all monitoring wells (active and abandoned) which will be horizontally located by latitude and longitude (degrees, minutes, seconds), Universal Transverse Mercator coordinates, and the elevation of the top of the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification number, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor, and submitted within **90 days** of new well completion.

32. **Groundwater Sampling.** All detection and background wells shall be sampled in accordance with F.A.C. 62-701.510(6)(c) and analyzed **every 6 months** for the groundwater monitoring parameters listed as follows:

| Field parameters | Laboratory parameters |
|---|---|
| Static Water Level before purging | Total Ammonia - N |
| | Chlorides |
| Specific Conductivity | Iron |
| pH | Mercury |
| Dissolved Oxygen | Nitrate |
| Turbidity | Sodium |
| Temperature | Total Dissolved Solids (TDS) |
| Colors and sheens (by observation) | Those parameters listed in 40 CFR Part 258, Appendix I |

Additional samples, wells, and parameters may be required based upon subsequent analysis.

INSERT 33 34

**SPECIFIC CONDITIONS:**

GROUND WATER MONITOR WELL CONSTRUCTION

~~33.~~ All wells not a part of the approved Water Quality Monitoring Plan are to be plugged and abandoned in accordance with F.A.C. 62-532.440, and the Southwest Florida Water Management District (SWFWMD). This includes piezometers H-32, H-40, H-48 and G-48. These piezometers shall be abandoned by **July 1, 1996**. Documentation of abandonment shall include a map showing piezometer/well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

REQUIRED

35 ~~34.~~ **Assessment Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's water quality standards or criteria at the edge of the zone of discharge, the permittee has 15 days to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis representative of current groundwater conditions at the facility, and assessment monitoring/corrective action as described in F.A.C. 62-701.510(7) shall be initiated.

REQUIRED

36 ~~35.~~ **Water Quality and Leachate Reporting Requirements.** All ground water quality monitoring and leachate analyses shall be reported on the Department Form 62-522.900(2), Ground Water Monitoring Report and shall include the items listed in F.A.C. 62-701.510(9)(a). The permittee shall submit to the Department the results of the water quality analysis **July 15th** and **January 15th** for the semi-annual periods January-June and July-December, respectively. The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

REQUIRED

SPECIFIC CONDITIONS:

~~36.~~ 37. **Groundwater Monitoring Plan Evaluation.**

**Every two years** and prior to **90 days before the expiration** of the Department Permit, the permittee shall submit an evaluation of the Groundwater Monitoring Plan as per F.A.C. 62-701.510(9)(b). The evaluation shall include the applicable information as required by F.A.C. 62-701.510(9), and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of groundwater contamination. Any groundwater contamination that may exist, shall be addressed as part of a groundwater investigation for the landfill assessment. The Groundwater Monitoring Plan shall be adequate to monitor any modifications to the existing landfill site including but not limited to closure. The first evaluation shall be submitted to the Solid Waste Section of the Department by **July 15, 1997.**

REVISED

~~37.~~ 38. **Air Requirements.**

a. An air construction permit is not required for the landfill unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.

b. An air operating permit is not required unless the landfill is required to obtain a Title V air operating permit (Title V permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V permit if the landfill (or the total facility, if the landfill is collocated or part of a larger facility) has the potential to emit 10 TPY of any hazardous air pollutant, 25 TPY of any combination of hazardous air pollutants or 100 TPY of any other regulated air pollutant. A landfill is also required to obtain a Title V permit if the maximum design capacity, as defined at 40 CFR 60, Subpart WWW, is equal or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V permits must be applied for in accordance with the timing and contact requirements of Rule 62-204.800, F.A.C. and Chapter 62-213, F.A.C. Title V applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill location.

c. The landfill shall comply with the requirements of 40 CFR 60, Subpart WWW and CC, as adopted by reference at Rule 62-204.800, F.A.C. Any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b) shall be submitted to be Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.

SPECIFIC CONDITIONS:

39 ~~38~~. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications or modifications and 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.

40 ~~39~~. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

41 ~~40~~. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

42 ~~41~~. **Regulations.** F.A.C. 62-701, effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing any part of this permitted operation are revised, the permittee shall comply with the new rules and request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____

Deborah A. Getzoff
Director of District Management
Southwest District

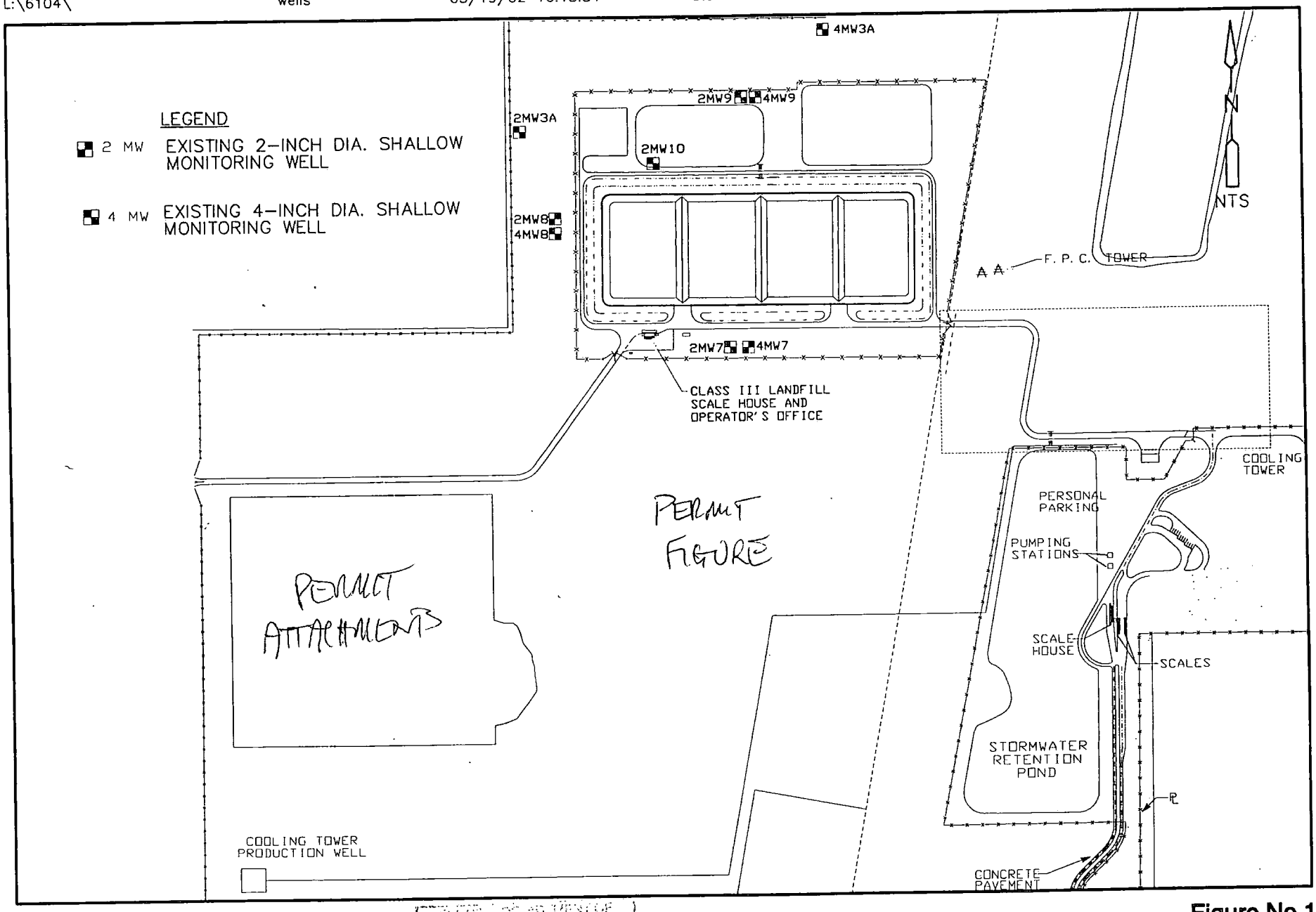
PERMITTEE: Pasco County Board of County Commissioners
Mr. John Power

PERMIT NO: 26255-001-SO
West Pasco Class III Landfill

Attachment 1

| SPECIFIC CONDITION | SUBMITTAL DUE DATE | REQUIRED ITEM |
|---|---|---|
| 4. | 60 days prior to permit expiration | Permit Renewal Application |
| 11. and 18. | Quarterly, by January 15th, April 15th, July 15th, and October 15th | Waste quantity reports, Gas monitoring results |
| 24. | 90 days prior to date of final waste acceptance | Closure Permit Application |
| 25. | Annually, by September 1st | Financial assurance cost estimates |
| ~~29.a.~~ | ~~Annually, by January 15th~~ | ~~Water quality QAP documentation~~ DELETE |
| ~~31.~~ 30 | Annually | Leachate sampled/analyzed |
| ~~33.~~ 32.b. | Every 6 months | Groundwater wells sampled/ analyzed |
| 36. | Semi-annually, by January 15th, and July 15th | GROUND Water quality ~~and leachate~~ monitoring results |
| 37. | ~~Every two years by July 15th and 90 days prior to permit expiration~~ MARCH 15, 2004 AND SEPT. 15, 2006 | WATER QUALITY Evaluation of ~~groundwater~~ monitoring plan |
| 36 | ANNUALLY BY JANUARY 15TH | LEACHATE MONITORING RESULTS |

L:\6104\ wells 03/19/02 10:18:34 5:36:50 Petermanrr




FLORIDA DEPT OF ENVIRONMENTAL PROTECTION
MAR 20 2002
SOLID WASTE SECTION

**CDM** Camp Dresser & McKee

**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

KIM —

WEST PASCO CLASS III

ITEMS ATTACHED :

1. DRAFT PERMIT CONDITIONS
2. PERMIT ATTACHMENTS
3. REPLACEMENT PAGES FOR OPS PLAN
4. SUBMITTAL FROM COM FOR PERMIT FILE
5. FAX I SENT TO JIBON GOMEZ FOR FILE
6. OPERATIONS PLAN

# CDM Fax

**CDM**

1715 North Westshore Blvd., Suite 875
Tampa, Florida 33607
(813) 281-2900
(813) 288-8787

| | | | |
|---|---|---|---|
| **To:** | Kim Ford | **From:** | Jason Gorrie |
| **Organization:** | FDEP | **Date:** | March 22, 2002 |
| **Fax No.:** | 744-6125 | **Time:** | 10:33 AM |
| **Re:** | West Pasco Class III | **Job #:** | |
| **# of Pages:** (including cover sheet) | 3 | | |

**Message:**

Pumps serving both leachate holding tanks are automatically activated and deactivated by level switches, as shown in Figure 3. The five float-switches are designated as follows:

a. Low-low level alarm/shutoff, to protect pump motors.

b. Low level shutoff to deactivate pumping cycle.

c. Activates pumps for pumping cycle.

d. Float for future use (not used at this time).

e. High-high level alarms (set at approximately 5'0 below the top of leachate holding tank).

At the high-high alarm, the pump system will be repaired and Pasco County will utilize their tanker fleet to pump and haul leachate to a wastewater treatment plant as necessary to prevent overflow.

The leachate holding tanks are metered and recorded in daily logs. In addition, the tanks are sampled and analyzed for the parameters listed at 62-701.510(8)(a) semi-annually by the Pasco County Environmental Services Laboratory. Rainfall is recorded by visual rain gauges and is recorded on the daily leachate log sheets. The volume of leachate generated and rainfall data is reported each month to the Florida Department of Environmental Protection. Results of leachate quality samples are reported to the Department semi-annually.

9.Routine Gas Monitoring Program

Of the Class III Landfill disposal's four units, only one unit (No. 1) is currently in use for acceptance of C&D material. The Class III C&D Landfill is situated in excess of 750 feet from all property boundaries, with the closest off-site structure being in excess of 1,000 feet. The Class III Scale House and Landfill Operator's Office, the closest structure, will be checked via gas meter quarterly and the results will be reported to the Department. Existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 will be used for conducting quarterly subsurface landfill gas monitoring adjacent to Cells 1 and 2. If the methane gas levels exceed the lower explosive limits specified by the FAC, the operator shall:

a. Notify his supervisor, who will take measures (if necessary) to protect health and safety.

b. Submit to the department within seven days a remediation plan.

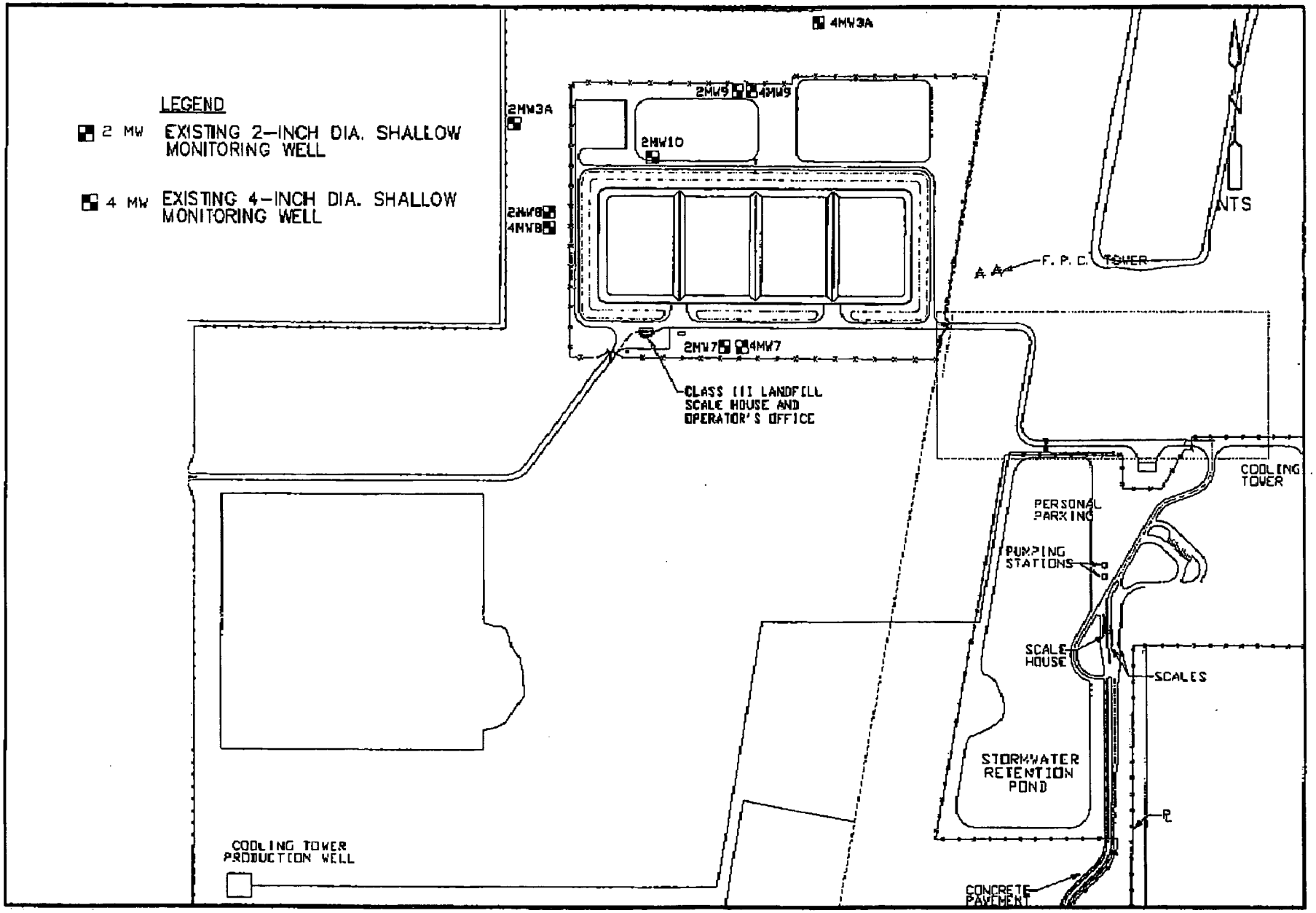



**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

CDM Camp Dresser & McKee

MAR-22-02 11:26AM FROM-Camp Dresser McKee Inc. 8132888787 T-822 P.003/003 F-905

WASTE MGT TAMPA SWD ax:8137446125

** Transmit Conf.Report **

P.1 Mar 22 2002 7:53

| Telephone Number | Mode | Start | Time | Pages | Result | Note |
|---|---|---|---|---|---|---|
| 92888787 | NORMAL | 22, 7:29 | 0'48" | 4 | # 0 K | |


**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**


**FAX**

Date: 3/22/02

Number of pages including cover sheet: 4

TO: JASON GORRLE

COM

PHONE: 2812900

FAX #: 2888787

FROM: Tim Ferris

PHONE: (813) 744-6100, x 382

FAX #: (813) 744-6125

CC:

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

W. PASCO EM

REVISION REQUESTED

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

FAX

Date: 3/22/02
Number of pages including cover sheet: 4

| | |
|---|---|
| TO: JASON GORRLE | FROM: Kim Ford |
| CDM | |
| PHONE: 2812900 | PHONE: (813) 744-6100, x 382 |
| FAX #: 2888787 | FAX #: (813) 744-6125 |
| CC: | |

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

W. PASCO III
REVISION REQUESTED

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The leachate holding tanks are metered and recorded in daily logs. In addition, the tanks are sampled and analyzed for the parameters listed at 62-701.510(8)(a) semi-annually by the Pasco County Environmental Services Laboratory. Videotaping of the leachate collection system is conducted every five years in accordance with Rule 62-701.500(8)(h). Rainfall is recorded by visual rain gauges and is recorded on the daily leachate log sheets. The volume of leachate generated and rainfall data is reported each month to the Florida Department of Environmental Protection. Results of leachate quality samples are reported to the Department semi-annually.

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Of the Class III Landfill disposal's four units, only one unit (No. 1) is currently in use for acceptance of C&D material. The Class III C&D Landfill is situated in excess of 750 feet from all property boundaries, with the closest off-site structure being in excess of 1,000 feet. The scale house and landfill operator's office, the closest structure, will be checked via gas meter quarterly and the results will be reported to the Department. Existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 will be used for conducting quarterly subsurface landfill gas monitoring adjacent to Cells 1 and 2. If the methane gas levels exceed the lower explosive limits specified by the FAC, the operator shall:

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as shown in Figure 3.

Pumps serving both leachate holding tanks are automatically activated and deactivated by level switches. The five float-swithes are designated as follows:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAR 20 2002
SOUTHWEST DISTRICT TAMPA

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9. Routine Gas Monitoring Program

off-site

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a. Notify his supervisor, who will take measures (if necessary) to protect health and safety.

b. Submit to the department within seven days a remediation plan.

# CDM Fax

CDM

1715 North Westshore Blvd., Suite 875
Tampa, Florida 33607
(813) 281-2900
(813) 288-8787

| | | | |
|---|---|---|---|
| **To:** | Kim Ford | **From:** | Jason Gorrie |
| **Organization:** | FDEP | **Date:** | March 21, 2002 |
| **Fax No.:** | 744-6125 | **Time:** | 3:38 PM |
| **Re:** | West Pasco Class III | **Job #:** | |
| **# of Pages:** (including cover sheet) | 3 | | |

**Message:**

Following please find:

- Revised Page 9 to the Landfill Operations Plan (original plan dated 11/1/01)
- Revised Figure 1 designating the Class III Scalehouse

Please disregard the previous facsimile transmission dated 3/19/02.

c: John Power, Pasco County

Jason

Pumps serving both leachate holding tanks are automatically activated and deactivated by level switches, as shown in Figure 3. The five float-switches are designated as follows:

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b. Submit to the department within seven days a remediation plan.

MAR-21-02 04:29PM FROM-Camp Dresser & McKee Inc. 8132888787 T-816 P.002/003 F-898

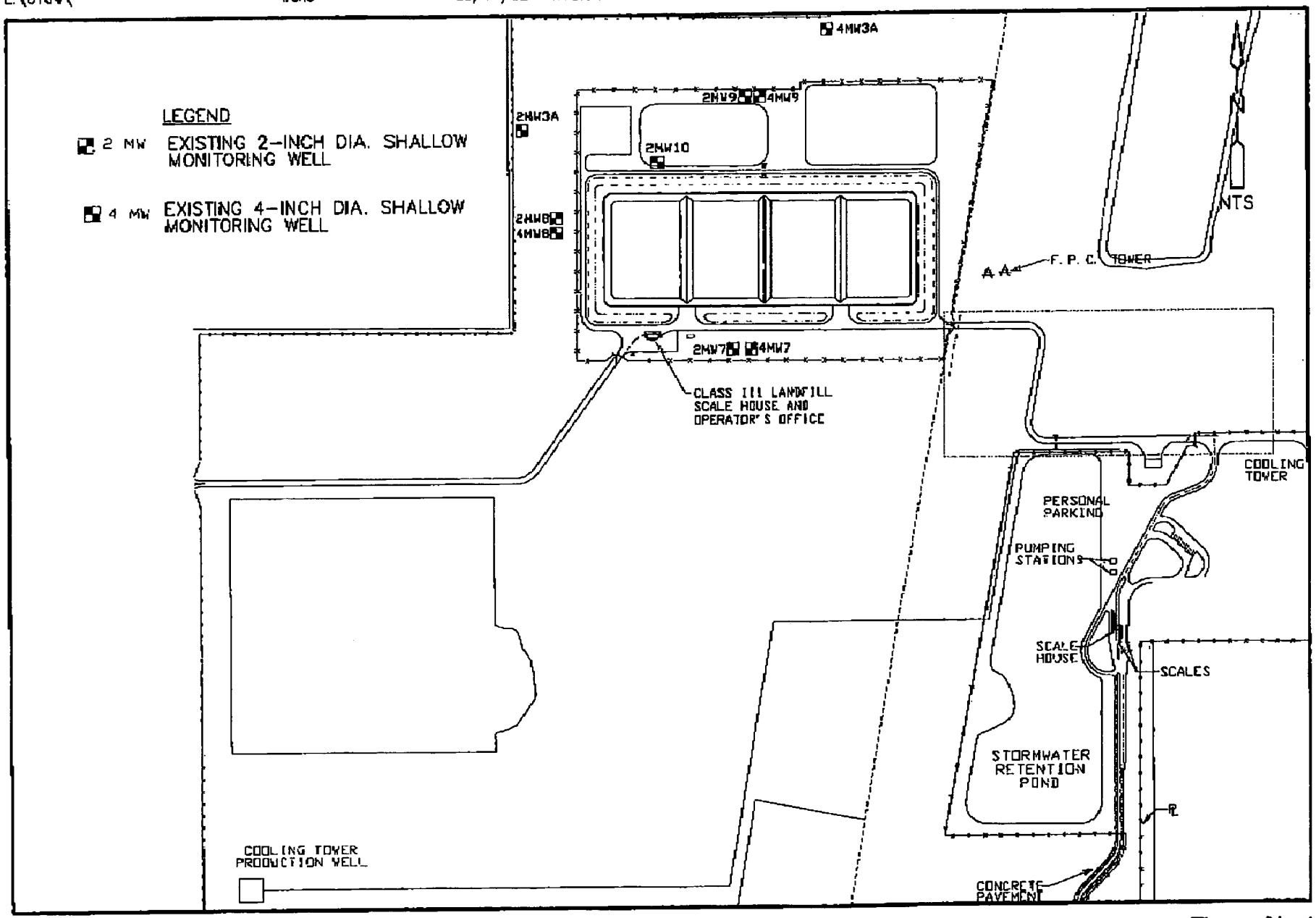



**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

**CDM** Camp Dresser & McKee

# CDM Transmittal

**CDM**

1715 North Westshore Blvd., Suite 875
Tampa, Florida 33607
(813) 281-2900
(813) 288-8787

RECEIVED
MAR 20 2002
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

**To:** John Morris

**From:** Jason Gorrie

**Organization/ Address:** FDEP
3804 Coconut Palm Drive
Tampa, FL 33619

**Date:** March 19, 2002

**Re:** West Pasco Class III Landfill

**Job #:**

**Via:** *Mail:* ✓ *Overnight:* *Courier:*

**Enclosed please find:**

| | | | |
|---|---|---|---|
| **For your information** | | **Approved** | |
| **For your review** | ✓ | **Approved as noted** | |
| **For your signature** | | **Returned to you for correction** | |

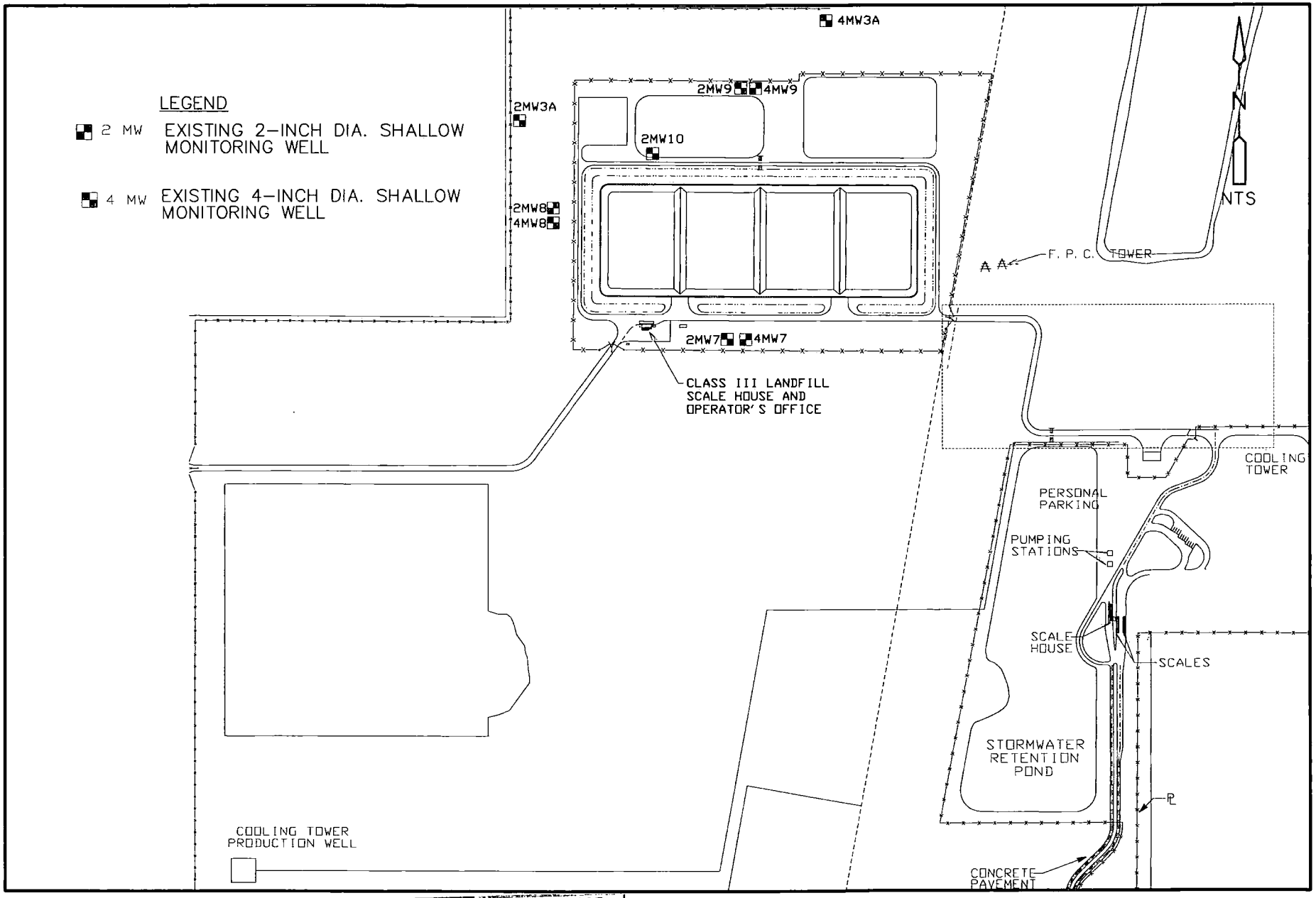
**Message:**

Revised Drawing labeling Class III Scalehouse and Operator's Office

Revised Page 9 of Operations Plan incorporating the formal name: Class III Scalehouse and Operator's Office

Signed

L:\6104\ wells 03/19/02 10:18:34 5:36:50 Petermanrr




FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAR 20 2002
SOUTHWEST DISTRICT TAMPA

**CDM** Camp Dresser & McKee

**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

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FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAR 2 0 2002
SOUTHWEST DISTRICT
TAMPA

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**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**

FAXED

# FAX

Date: MARCH 14, 2002
Number of pages including cover sheet: 3

| | |
|---|---|
| TO: | FROM: |
| JASON GORME / CDM | JOHN MORRIS |
| PHONE: | PHONE: (813) 744-6100, EXT. 336 |
| FAX #: 288-8787 | FAX #: (813) 744-6125 |
| CC: | |

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

GW MONITORING AT W. PASCO CLASS III AS DISCUSSED

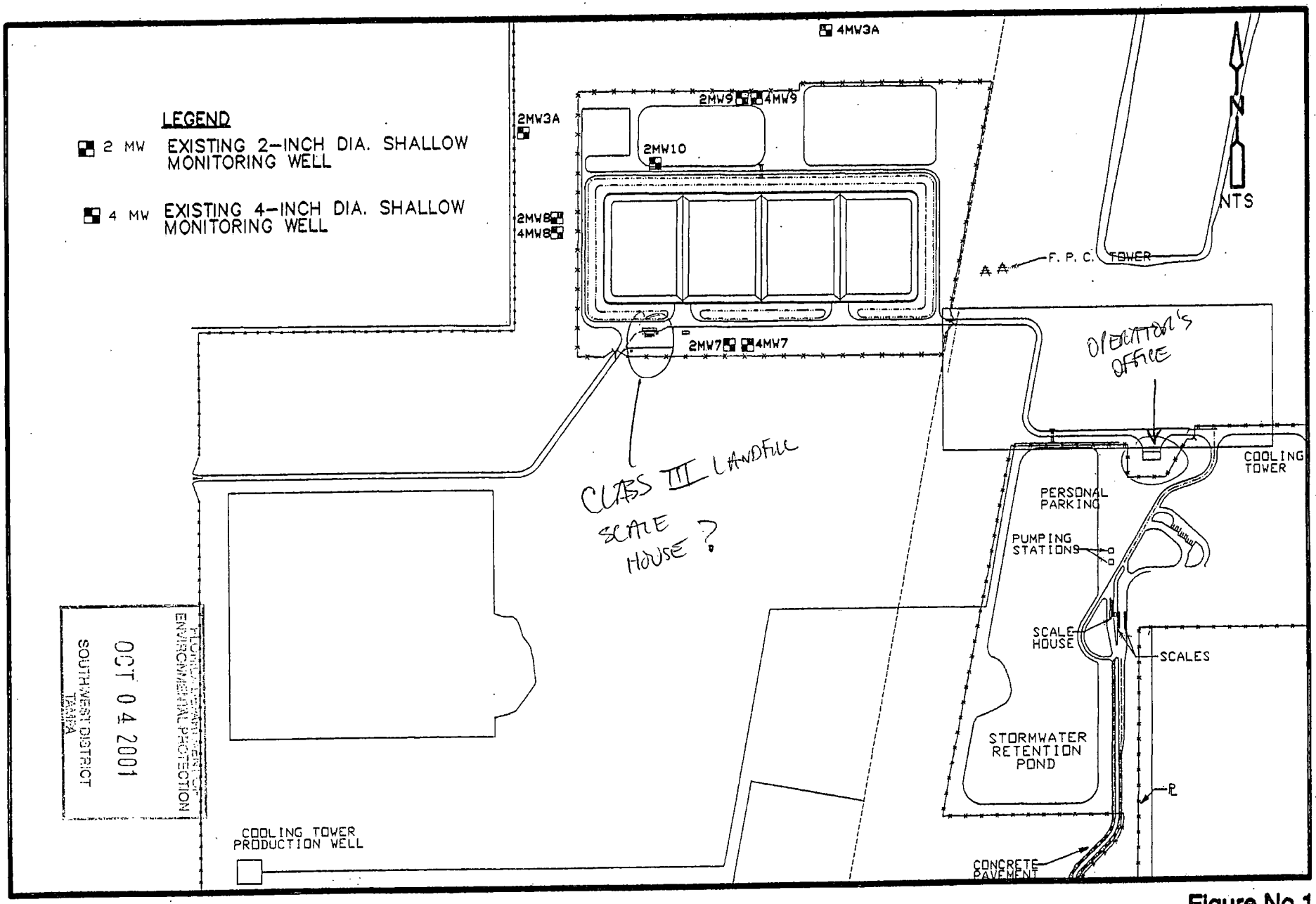


**Figure No.1**
**West Pasco**
**Class III Landfill**
**Ground Water Monitoring Wells**

**CDM** Camp Dresser & McKee

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d. Float for future use (not used at this time).

e. High-high level alarms (set at approximately 5'0 below the top of leachate holding tank).

At the high-high alarm, the pump system will be repaired and Pasco County will utilize their tanker fleet to pump and haul leachate to a wastewater treatment plant as necessary to prevent overflow.

The leachate holding tanks are metered and recorded in daily logs. In addition, the tanks are sampled and analyzed for the parameters listed at 62-701.510(8)(a) semi-annually by the Pasco County Environmental Services Laboratory. Videotaping of the leachate collection system is conducted every five years in accordance with Rule 62-701.55(8)(h). Rainfall is recorded by visual rain gauges and is recorded on the daily leachate log sheets The volume of leachate generated and rainfall data is reported each month to the Florida Department of Environmental Protection. Results of leachate quality samples are reported to the Department semi-annually.

9. Routine Gas Monitoring Program

CLASS III LANDFILL

STRUCTURES?

Of the Class III Landfill disposal's four units, only one unit (No. 1) is currently in use for acceptance of C&D material. The Class III C&D Landfill is situated in excess of 750 feet from all property boundaries, with the closest off-site structure being in excess of 1,000 feet. The scale house and landfill operator's office, the closest structure, will be checked via gas meter quarterly and the results will be reported to the Department. Existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 will be used for conducting quarterly subsurface landfill gas monitoring adjacent to Cells 1 and 2. If the methane gas levels exceed the lower explosive limits specified by the FAC, the operator shall:

a. Notify his supervisor, who will take measures (if necessary) to protect health and safety.

b. Submit to the department within seven days a remediation plan.

WASTE MGT TAMPA SWD x:8137446125

** Transmit Conf.Report **

P.1 Mar 14 2002 9:13

| Telephone Number | Mode | Start | Time | Pages | Result | Note |
|---|---|---|---|---|---|---|
| 92888787 | FINE | 14, 9:11 | 0'51" | 3 | # 0 K | |


**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**3804 COCONUT PALM DRIVE**
**TAMPA, FL 33619-8318**


**FAX**

Date: MARCH 14, 2002
Number of pages including cover sheet: 3

TO: JASON GORMLE / CDM

FROM: JOHN MORRIS

PHONE:

PHONE: (813) 744-6100, EXT. 336

FAX #: 288-8787

FAX #: (813) 744-6125

CC:

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

GAS MONITORING AT W. PASCO CLASS III IS DISMISSED

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

Mr. Douglas Bramlett, Assistant County Administrator
Pasco County Utilities Services
7530 Little Road, S-204
New Port Richey, FL 34654

February 11, 2002

RE: Financial Assurance Cost Estimates
West Pasco Class III Landfill, Pasco County
Pending permit #: 26255-001-SO

Dear Mr. Bramlett:

This letter is to acknowledge receipt of the revised cost estimates, dated January 29, 2002 (received January 31, 2002), for closing and long-term care of the West Pasco Class III Landfill, and Waste Tire Processing Facility. The cost estimates received January 31, 2002 ($1,659,958 total closing and $70,092/year x 30 years = $2,102,760 total long-term care) are **APPROVED for 2001.** The approved estimates include closing and long-term care for 20 acres of landfill disposal area and $152,886 for closing the waste tire processing facility (maximum 2500 tons of waste tires). The next annual update (revised or inflation-adjusted estimates) is due no later than September 1, 2002.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, P.E.
Solid Waste Section
Southwest District

sjp
cc: Robert J. Sigmond, Pasco County, 7530 Little Road, New Port Richey, FL 34654
John Powers, Pasco County, 14230 Hays Road, Spring Hill, FL 34610
Fred Wick, FDEP, Tallahassee, w/attachment
Robert Butera, P.E., FDEP Tampa
Kim Ford, P.E., FDEP Tampa

Department of
# Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

January 24, 2002

Mr. John Power
Pasco County Utilities
Solid Waste Operations
7530 Little Road
New Port Richey, FL 34654

**Re: West Pasco Class III Landfill**
**Pending Permit No.: 26255-001-SO, Pasco County**

Dear Mr. Power:

This is to acknowledge receipt of the additional information in support of your permit renewal application, received December 27, 2001 for operation of the West Pasco Class III Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your permit application remains incomplete. This is the Department's 4th request for additional information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste applications [Chapters 62-701, Florida Administrative Code (F.A.C.)]. Please provide:

1. **62-701.630.** Approval of cost estimates and proof of financial assurance. You may call Ms. Susan Pelz at extension 386 to discuss your response to this item.

"NOTICE! Pursuant to the provisions of Section 120.60, F.S., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Please submit your response to this letter as one complete package. On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab

cc: Douglas Bramlett, Pasco County
Curtis Roos, P.E., Law Engineering
Jason Gorrie, P.E., CDM
Robert Butera, P.E., FDEP Tampa
Susan Pelz, P.E., FDEP Tampa

Flo[illegible]a Department of

# Memorandum

# Environmental Protection

**TO:** Kim Ford, P.E.
**FROM:** John R. Morris, P.G. JRM
**DATE:** January 18, 2002
**SUBJECT:** West Pasco Class III Landfill
Permit Renewal Application
Hydrogeologic and Monitoring Review Comments
**cc:** Robert Butera, P.E.

---

I have reviewed the following submittal that provides responses to the request for additional information in support of the permit renewal application for the referenced facility:

- Correspondence prepared by Camp Dresser & McKee, Inc. (CDM), *West Pasco Class III Landfill, Permit Renewal Application, Responses to Request for Additional Information,* dated December 26, 2001, received December 27, 2001

My review focused on the hydrogeologic and monitoring aspects of the permit renewal. Responses were provided to review comment Nos. 2.c., 2.d., 2.e., and 11 as requested in my previous memorandum dated November 2, 2001. The submitted revisions adequately address the review comments and meet the requirements of Rule 62-701.510, F.A.C.

However, it is noted that Attachment 2 of the submittal (correspondence prepared by QORE, Inc., *Repair of Monitor Well 4MW-7,* dated December 4, 2001) indicates that the repair of well 4MW-7 was completed prior to receiving review comments that were provided in my previous memorandum. This resulted in completing the well repair with five feet of screen more than was justified by the correspondence prepared by QORE, Inc., dated October 1, 2001. At this time it is not intended that any additional revisions be completed at well 4MW-7. Please note that justification of construction details (well screen top/bottom elevations, length of well screen) for any new or replacement wells that may be installed at the facility must be based on ground water occurrence and seasonal fluctuations.

jrm

WASTE MANAGEMENT TECHNICAL SUPPORT
ROUTING FORM

PERMITTED FACILITIES

To: John

From: Em

Date: 12/28/01

Subject: W. PASCO CIII LF

Document Name: _____

Revision Number 4 County: PASCO

Facility Name: _____

Type of Facility: CIII LF

Permit Number: _____ Issue Date: _____

Copy of Permit attached: _____

Document submitted in compliance with permit condition. _____

Document subject to permit timeclock. YES

Day 1: 12/27/01

Day 30: 1/25/02

PATS sheet attached: _____

Enforcement Case/CO/NOV/ associated with this site: —

Files and related documents can be found Application in folder

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 1/20/02.

Comments: _____

Module _____

Attachments

CDM
1715 North Westshore Boulevard, Suite 875
Tampa, Florida 33607
tel: 813 281-2900
fax: 813 288-8787

RECEIVED
DEC 27 2001
Department of Environmental Protection
SOUTHWEST DISTRICT
BY

December 26, 2001

Mr. Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619

Subject: West Pasco Class III Landfill, Permit Renewal Application
Responses to Request for Additional Information

Dear Mr. Ford:

We are in receipt of your Request for Additional Information Dated November 2, 2001 as relates to the subject facility. The following responses are provided in support of all previously submitted information:

1. **62-701.510.** A response to each of Mr. John Morris's comments and concerns expressed in his August 14,2001 memorandum, attached. You may call Mr. Morris at extension 336 to discuss your response to this item.

*Response:* **Following Item No. 2 herein are responses to each of Mr. John Morris's comments and concerns expressed in his November 2, 2001 memorandum.**

2. **62-701.630** Proof of financial assurance. A copy of Pasco County's letter of confirmation from the Department's Tallahassee Solid Waste Section will be sufficient.

*Response:* **Law Engineering is currently working on the 2001 Financial Assurance provisions with the Department.**

**The following are the responses to Mr. John Morris's Hydrogeologic and Monitoring Review Comments Dated November 2, 2001.**

GROUND WATER MONITORING PLAN EVAULATION (Rule 62-701.510(9)(b), F.A.C.)

Section 1.2 - Ground Water Monitoring Plan

1. The clarification of the identification numbers for wells 2MW-3A and 4MW-3A, and the submittal of a revised Figure 1 in Attachment 4 are noted. **No additional information is requested.**

Section 2.1 – Data Tabulation

2. The indicated revisions to the analytical results summary tables do not appear to be reflected in Tables 2-1 through 2-4 provided in Attachment 6. Please review the following items and provide revisions, as appropriate:
   a. The revisions to Tables 2-2, 2-3, and 2-4 do no include the results for vinyl acetate, vinyl chloride, and xylenes are noted. **No additional information is requested.**

   b. The revisions to Table 2-1, to reflect a mercury concentration of 0.0004 mg/L for Quarter 1, 1999 sampling event is noted. **No additional information is requested.**

   c. A turbidity result of 0 NTU is provided in Table 2-1 for the quarter 3, 1999 sampling event, however the report provided by Pasco County indicated a turbidity result of 1.7 NTU for the same sampling event. Please revise Table 2-1 as appropriate.

   d. A methyl chloride result of 4.18 ug/L is provided in Table 2-1 for the quarter 3, 1999 sampling event, however the report provided by Pasco County indicated a methylene chloride result of 4.18 ug/L for the same sampling event. Please revise Table 2-1 as appropriate.

   e. Turbidity results of 0.01 NTU are provided in Tables 2-1, 2-3, 2-4 for the quarter 3, 2000 sampling event, however the report provided by Pasco County for this sampling event indicated that turbidity was not analyzed. Please revise Table 2-1, 2-3, 2-4 as appropriate.

*Response:* **Provided as Attachment 1 to this letter are revised Tables 2-1, 2-3, and 2-4 with the requested information.**

3. The comment regarding submittal of results of future ground water samples with detection levels low enough to allow comparison with ground water standards was previously addressed. **No additional information is requested.**

4. The comment regarding leachate analytical results was previously addressed. **No Additional information is requested.**

Section 2.2 – Graphical Presentations

5. The comment regarding mercury concentrations presented on Figure 2-1 was previously addressed. **No additional information is requested.**

Section 3.1 – Data Tabulation

6. The response that indicated the ground water elevation reported for well 4MW-9 during Quarter 3, 2000 was 25.3 feet and that there was no indication of localized ground water mounding is noted. **No additional information is requested.**

7. The revision to Table 3-2 to include the elevations of the top and bottom of the well screen/open hole interval for each well is noted. **No additional information is requested.**

Section 3.2 – Well Hydrographs

8. The revision of Figure 3-1 to reflect the ground water elevation for well 4MW-9 during Quarter 3, 2000 indicated in comment No. 6, above, in noted. **No additional information is requested.**

Section 3.3 – Summary/Investigations

9. The acknowledgement of the Department's intention to require the repair/replacement of existing well 4MW-7, the collection of supplemental ground water elevation data at a monthly frequency for one year to characterize seasonal fluctuations, and the submittal of an evaluation of the direction/rate of ground water flow is noted. **No additional information is requested.**

10. The acknowledgement of the Department's intention to allow use of hydraulic conductivity data from the adjacent Class I disposal areas in the calculation of ground water velocity at the Class III facility is noted. **No additional information is requested.**

Section 4.1 – Sampling Locations

11. The revision to the proposed work plan to repair or replace well 4MW-7 submitted by QORE (received October 1, 2001) that clarifies the proposed elevation of the well screen is noted. Based on the ground water elevation range provided by QORE, it appears appropriate to repair/replace well 4MW-7 with no more than 20 feet of well screen. In the event that well 4MW-7 can be repaired, the attached copy of Plate No. 1 provided by QORE (received October 1, 2001) has been modified to indicate that the bottom of the well shall not be installed lower than about elevation +7 feet. In the event that well 4MW-7 must be replaced, the Department does not object to the proposed construction details provided on Plate No. 1.

*Response:* **Provided as Attachment 2, please find a letter dated December 4, 2001 from Qore, Inc. describing repairs that were conducted on October 29, 2001. Please note that the well was restored in a manner to maintain consistency with the other detection wells at the**

**site. Namely, 25 feet of screen was installed. We regret that the repairs were affected prior to your letter of November 2, in which you provided additional comment on the length of well screen.**

12. The acknowledgement of the Department's intention that the assessment of the adequacy of the designated background and downgradient monitor wells be included as part of the evaluation of the direction of ground water flow described in item No. 9, above, is noted. **No additional information is requested.**

Section 4.2 – Sampling Frequency

13. The acknowledgement of the Department's intention that the assessment of ground water velocity be included as part of the evaluation of the rate of ground water flow in item No. 9, above, is noted. **No additional information is requested.**

GAS MIGRATION AND ENGINEERING EVALUATION (Rule 62-701.400(10), F.A.C.)

Section 1.0 – Introduction

14. The comment regarding revision of the Operations Plan to include quarterly gas monitoring at the existing surficial aquifer wells was previously addressed. **No Additional information is requested.**

Very truly yours,

Jason M. Gorrie, P.E.
Camp Dresser & McKee Inc.

c: John Power, Pasco County
John Morris, FDEP
Bob Butera, FDEP

# Attachment 1

# Table 2-1
## Monitoring Well 4MW-3a (background)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| conductivity | umhos/cm | 301 | 339 | 249 | 482 | 388 | 383 | 761 | 740 | 580 | 425 | 336 | 350 |
| pH | s.u. | 7.22 | 7.35 | 7.3 | 7.25 | 7 | 7.25 | 7.29 | 6.95 | 7.08 | 7.25 | 6.79 | 7.14 |
| dissolved oxygen | mg/l | 1.7 | 1.6 | 1.88 | | | 0.87 | | | | 0.55 | 1.2 | 1 |
| turbidity | NTU | 1.5 | 1.17 | 0.944 | 3.46 | 0.9 | 1.18 | 0.28 | 0.3 | 0.37 | 1.7 | 0 | |
| total ammonia | mg/l | | 0.16 | 0.24 | 0.1 | 0.29 | 0.12 | 0.08 | ND | ND | 0.17 | ND | ND |
| chlorides | mg/l | 22.4 | 23.7 | 47.7 | 67.2 | 39.6 | 41.9 | 150 | 143 | 105 | 41 | 30.1 | 30 |
| iron | mg/l | 0.16 | 0.19 | 0.19 | 0.34 | 0.25 | 0.21 | 0.17 | 0.15 | 0.17 | 0.4 | 0.29 | 0.28 |
| mercury | mg/l | | | ND | 0.0005 | 0.0002 | 0.0007 | 0.0007 | 0.0009 | 0.0004 | ND | ND | ND |
| sulfate | mg/l | ND | 2.76 | 5.4 | 8 | 2.73 | 4.68 | 27.1 | 33.7 | 22.6 | 29.1 | 3.31 | 3.37 |
| bicarbonate | mg/l | 150 | 146 | 145 | 143 | 146 | 148 | 143 | 160 | 151 | 151 | 148 | 149 |
| TOC | mg/l | 9.05 | 14.6 | 23.2 | 1.11 | 2.57 | 2.19 | 2.12 | 3.05 | ND | 2.02 | 1.77 | 1.31 |
| nitrate | mg/l | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sodium | mg/l | 6.02 | 6.25 | 10.9 | 17.2 | 9.26 | 10.7 | 43 | 38.5 | 29 | 12.7 | 8.71 | 7.58 |
| TDS | mg/l | 244 | 221 | 295 | 402 | 270 | 305 | 1020 | 480 | 445 | 282 | 230 | 252 |
| | | | | | | | | | | | | | |
| antimony | mg/l | | | ND | ND | ND | ND | ND | ND | ND | 0.00104 | 0.011 | ND |
| arsenic | mg/l | | | ND | ND | ND | 0.0029 | ND | ND | 0.0064 | 0.00168 | 0.00124 | 0.00129 |
| barium | mg/l | | | ND | 0.045 | 0.011 | ND | 0.035 | 0.027 | 0.019 | 0.0132 | 0.0118 | 0.00989 |
| beryllium | mg/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cadmium | mg/l | | | ND | ND | ND | ND | 0.00017 | ND | ND | ND | ND | ND |
| chromium | mg/l | | | 0.0008 | ND | ND | ND | 0.09 | ND | ND | 0.00132 | 0.00032 | ND |
| cobalt | mg/l | | | ND | ND | ND | ND | 0.042 | ND | ND | 0.000121 | 0.000217 | 0.000164 |
| copper | mg/l | | | ND | ND | ND | 0.012 | 0.014 | ND | ND | 0.00164 | 0.00282 | 0.000906 |
| lead | mg/l | | | ND | ND | ND | 0.00056 | ND | ND | ND | 0.000188 | 0.00116 | ND |
| nickel | mg/l | | | ND | ND | ND | 0.047 | 0.079 | ND | ND | 0.00182 | 0.00194 | 0.00172 |
| selenium | mg/l | | | ND | ND | ND | ND | 0.0038 | ND | ND | 0.00305 | 0.000994 | ND |
| silver | mg/l | | | ND | ND | ND | ND | ND | ND | ND | 0.000338 | 0.000263 | ND |
| thallium | mg/l | | | ND | ND | ND | ND | ND | ND | ND | 0.000427 | 0.000202 | ND |
| vanadium | mg/l | | | ND | ND | ND | ND | 0.013 | ND | 0.00049 | 0.000811 | 0.000978 | 0.000509 |
| zinc | mg/l | | | ND | ND | ND | ND | 0.024 | ND | ND | ND | 0.0128 | 0.0344 |
| | | | | | | | | | | | | | |
| acetone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| acrylonitrile | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| benzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromochloromethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromodichloromethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromoform | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon disulfide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon tetrachloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chlorobenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroform | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Table 2-1
## Monitoring Well 4MW-3a (background)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| bibromochloromethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropa | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-dichlorobenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-dichlorobenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trasns-1,4-Dichloro-2-bute | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl bromide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl chloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene bromide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | 4.18 | ND | ND |
| Methyl ethyl ketone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl iodide | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroflouromethane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl acetate | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl chloride | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Xylenes | ug/l | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Table 2-3
## Monitoring Well 4MW-8 (compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *3Q95* | *4Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| conductivity | umhos/cm | 248 | 271 | 262 | 282 | 279 | 261 | 285 | 275 | 260 | 287 | 274 | 290 |
| pH | s.u. | 7.25 | 7.27 | 7.12 | 7.54 | 7.21 | 7.02 | 7.54 | 7.13 | 7.22 | 7.28 | 7.12 | 7 |
| dissolved oxygen | mg/l | 1.1 | 1 | 0.58 | | | 1 | | | | 0.7 | 1 | 1 |
| turbidity | NTU | 0.8 | 0.89 | 1.72 | 1.3 | 0.8 | 0.24 | 0.6 | 0.9 | 1.09 | 0.84 | 0 | |
| total ammonia | mg/l | | ND | ND | ND | 0.24 | ND | ND | ND | ND | ND | ND | ND |
| chlorides | mg/l | 6.64 | 6.3 | 5.6 | 6.2 | 5.5 | 5.31 | 6.82 | 7.31 | 7.89 | 9.69 | 8.16 | 7.33 |
| iron | mg/l | ND | 0.08 | 0.08 | 0.02 | 0.06 | 0.05 | 0.04 | ND | ND | ND | 0.06 | 0.07 |
| mercury | mg/l | | | 0.0009 | ND | 0.0003 | 0.0006 | 0.001 | 0.0007 | 0.0004 | 0.0006 | ND | ND |
| sulfate | mg/l | 1.6 | ND | ND | 15.4 | 1.36 | 1.96 | 1.26 | ND | ND | ND | ND | ND |
| bicarbonate | mg/l | 141 | 137 | 138 | 138 | 142 | 146 | 148 | 152 | 145 | 144 | 143 | 149 |
| TOC | mg/l | 5.96 | 11.3 | 19.8 | 2.06 | 1.18 | 0.86 | 1.38 | 0.77 | ND | 0.59 | 0.83 | ND |
| nitrate | mg/l | ND | 0.02 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.27 |
| sodium | mg/l | 3.7 | 3.55 | 3.54 | 3.56 | 3.49 | 3.51 | 3.55 | 3.73 | 3.59 | 3.49 | 3.61 | 3.53 |
| TDS | mg/l | 186 | 151 | 181 | 176 | 161 | 181 | 192 | 176 | 207 | 196 | 184 | 208 |
| antimony | mg/l | | ND | 0.027 | ND | ND | ND | ND | ND | ND | 0.000889 | 0.00188 | ND |
| arsenic | mg/l | | ND | ND | ND | ND | 0.0009 | ND | ND | 0.004 | 0.000989 | 0.00095 | 0.000844 |
| barium | mg/l | | ND | ND | 0.025 | 0.007 | ND | 0.019 | 0.011 | 0.0062 | 0.0101 | 0.0105 | 0.00678 |
| beryllium | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cadmium | mg/l | | ND | ND | ND | ND | ND | 0.00051 | ND | ND | 0.000166 | ND | ND |
| chromium | mg/l | | ND | ND | ND | ND | 0.061 | 0.028 | ND | ND | 0.00173 | 0.000191 | 0.000683 |
| cobalt | mg/l | | ND | ND | ND | ND | ND | 0.057 | ND | ND | 0.000208 | 0.000128 | 0.000136 |
| copper | mg/l | | ND | ND | ND | ND | 0.01 | 0.006 | ND | ND | 0.00656 | 0.00303 | 0.00117 |
| lead | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000372 | 0.000269 | 0.000191 |
| nickel | mg/l | | ND | ND | ND | ND | 0.07 | ND | 0.006 | ND | 0.00134 | 0.00165 | 0.00139 |
| selenium | mg/l | | ND | ND | ND | ND | ND | 0.0038 | ND | ND | 0.00118 | 0.000594 | 0.000989 |
| silver | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000241 | ND | ND |
| thallium | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000183 | ND | ND |
| vanadium | mg/l | | ND | ND | ND | ND | ND | ND | ND | 0.0011 | 0.00142 | 0.00183 | 0.000917 |
| zinc | mg/l | | 0.005 | 0.088 | ND | ND | ND | ND | ND | ND | 0.00266 | ND | 0.0045 |
| acetone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| acrylonitrile | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| benzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromochloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromodichloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromoform | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon disulfide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Table 2-3
## Monitoring Well 4MW-8 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3Q95 | 4Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| carbon tetrachloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroform | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bibromochloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropa | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trasns-1,4-Dichloro-2-buter | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | 5.78 | 1.21 | ND |
| Methyl ethyl ketone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl iodide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroflouromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## Table 2-3
## Monitoring Well 4MW-8 (compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *3Q95* | *4Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| Vinyl acetate | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Xylenes | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Table 2-4
## Monitoring Well 4MW-9 (compliance)

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *parameter* | *units* | *1Q95* | *3Q95* | *1Q96* | *3Q96* | *1Q97* | *3Q97* | *1Q98* | *3Q98* | *1Q99* | *3Q99* | *1Q00* | *3Q00* |
| conductivity | umhos/cm | 282 | 271 | 334 | 310 | 313 | 315 | 348 | 340 | 315 | 357 | 336 | 424 |
| pH | s.u. | 7.15 | 7.19 | 7.47 | 7.26 | 7.09 | 7.11 | 7.3 | 7 | 7.2 | 7.12 | 7 | 6.7 |
| dissolved oxygen | mg/l | 0.8 | 1 | 0.76 | | 0.5 | | | | | 0.5 | 0.9 | 0.9 |
| turbidity | NTU | 0.7 | 0.32 | 0.563 | 0.3 | 0.3 | 0.15 | 0.11 | 0.55 | 0.1 | 0.08 | 0 | |
| total ammonia | mg/l | | ND | ND | ND | 0.08 | ND | ND | ND | ND | 0.03 | ND | ND |
| chlorides | mg/l | 9.69 | 16.3 | 9.7 | 6.6 | 10.8 | 12.1 | 9.9 | 18.1 | 19 | 20.4 | 18.5 | 3.8 |
| iron | mg/l | ND | 0.05 | 0.08 | 0.03 | 0.06 | 0.07 | 0.03 | 0.03 | ND | ND | 0.02 | 0.09 |
| mercury | mg/l | | | 0.0007 | ND | 0.0003 | 0.0006 | 0.001 | 0.0009 | 0.0003 | 0.0002 | ND | ND |
| sulfate | mg/l | 1.25 | 3.5 | ND | ND | 1.41 | 2.63 | ND | 2.12 | 1.89 | 1.77 | 1.7 | 2.41 |
| bicarbonate | mg/l | 160 | 137 | 159 | 146 | 153 | 158 | 179 | 170 | 152 | 161 | 167 | 207 |
| TOC | mg/l | 6.82 | 15 | 20.9 | 1.67 | 1.18 | 1.15 | 1.81 | 1.01 | ND | 0.99 | 0.89 | 2.32 |
| nitrate | mg/l | ND | 0.55 | ND | ND | ND | ND | ND | ND | 0.19 | 0.12 | ND | 1.75 |
| sodium | mg/l | 3.6 | 5.39 | 4.22 | 3.82 | 3.8 | 4.08 | 4.24 | 4.88 | 4.6 | 4.67 | 4.55 | 5.03 |
| TDS | mg/l | 209 | 226 | 232 | 185 | 199 | 217 | 295 | 232 | 229 | 212 | 233 | 306 |
| | | | | | | | | | | | | | |
| antimony | mg/l | | ND | 0.018 | ND | ND | 0.0049 | ND | ND | ND | ND | 0.00034 | ND |
| arsenic | mg/l | | ND | ND | ND | ND | 0.0043 | ND | ND | 0.004 | 0.000961 | 0.000889 | 0.00112 |
| barium | mg/l | | ND | ND | ND | 0.007 | ND | 0.028 | 0.012 | 0.019 | 0.00894 | 0.009 | 0.0123 |
| beryllium | mg/l | | ND | ND | ND | ND | ND | 0.0021 | ND | ND | ND | ND | ND |
| cadmium | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chromium | mg/l | | ND | ND | ND | ND | 0.036 | 0.036 | ND | ND | 0.00323 | 0.000429 | 0.00102 |
| cobalt | mg/l | | ND | ND | ND | ND | ND | 0.066 | ND | ND | ND | 0.000122 | 0.000211 |
| copper | mg/l | | ND | ND | ND | ND | 0.035 | 0.006 | ND | ND | 0.00389 | 0.00137 | 0.00177 |
| lead | mg/l | | ND | ND | ND | ND | 0.00025 | ND | ND | ND | 0.000822 | 0.000326 | 0.000114 |
| nickel | mg/l | | ND | ND | ND | ND | 0.055 | 0.151 | ND | ND | 0.00152 | 0.00233 | 0.00221 |
| selenium | mg/l | | ND | ND | ND | ND | ND | 0.005 | ND | ND | 0.00181 | ND | 0.000155 |
| silver | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000253 | ND | ND |
| thallium | mg/l | | ND | ND | ND | ND | ND | ND | ND | ND | 0.000163 | ND | ND |
| vanadium | mg/l | | ND | ND | ND | ND | ND | 0.033 | ND | ND | 0.000477 | 0.000542 | 0.000526 |
| zinc | mg/l | | ND | 0.083 | ND | ND | ND | 0.039 | ND | ND | 0.0182 | ND | 0.0101 |
| | | | | | | | | | | | | | |
| acetone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| acrylonitrile | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| benzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromochloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromodichloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bromoform | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon disulfide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| carbon tetrachloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| chloroform | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## Table 2-4
## Monitoring Well 4MW-9 (compliance)

| parameter | units | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1Q95 | 3Q95 | 1Q96 | 3Q96 | 1Q97 | 3Q97 | 1Q98 | 3Q98 | 1Q99 | 3Q99 | 1Q00 | 3Q00 |
| bibromochloromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropa | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromomethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-dichlorobenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trasns-1,4-Dichloro-2-bute | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene bromide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | 5.69 | ND | ND |
| Methyl ethyl ketone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl iodide | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroflouromethane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl acetate | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl chloride | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Xylenes | ug/l | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Attachment 2

QORE
PROPERTY SCIENCES

December 4, 2001

Mr. John Morris, P.G.
**Florida Department of Environmental Protection**
3804 Coconut Palm Drive
Tampa, Florida 33619

**Re: Repair of Monitor Well 4MW-7**
**West Pasco Class III Landfill**
**Pasco County, Florida**
**QORE Project No. 27-2440W**

Dear Mr. Morris,

On behalf of Pasco County, QORE, Inc. (QORE) is pleased to submit this letter describing the activities undertaken to repair monitor well 4MW-7 located at the West Pasco Class III Landfill site near Spring Hill, Florida. Background information and the proposed repair/replacement activities were described in our July 9, 2001 letter to Mr. John Morris of the Department of Environmental Protection (DEP). After clarifying the elevation of features on the existing well in a letter to Mr. John Morris dated October 1, 2001, the proposed plan was approved by the DEP.

A drill rig was mobilized to the site on October 29, 2001 and set up on the existing monitor well 4MW-7. The water level was measured at a depth of 25 feet below the top of casing (btoc). The reported blockage was measured at a depth of 27.8 feet btoc.

Rotary wash drilling techniques were used to drill through the blockage. The drilling fluid used was water. The existing open-hole section was flushed and 2-inch diameter threaded, flush-joint, Schedule 40 PVC casing and well screen were installed in the existing well bore in accordance with the well construction contained in QORE's July 9, 2001 letter. Twenty-five (25) feet of 0.010-inch slotted well screen was set to a depth of 47 feet bgs. The annular space was filled with 20/30 gradation filter sand to a height of approximately 2 feet above the top of the screen. A one-foot thick fine sand seal was placed on top of the filter sand and the remainder of the well bore was filled with a neat cement grout. The top of the 2-inch diameter casing was cut off flush with the existing 4-inch diameter well casing.

After installation, the well was developed by pumping and surging until the discharge was visually free of suspended sediments. The existing above-ground locking steel cover was not damaged. A Pasco County surveyor registered in the State of Florida re-surveyed the elevation of the top of the well casing.

1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646 fax (813) 623-3795

A diagram of the resulting well construction is attached to this letter. The survey report provided by Pasco County's surveyor is also attached.

* * * *

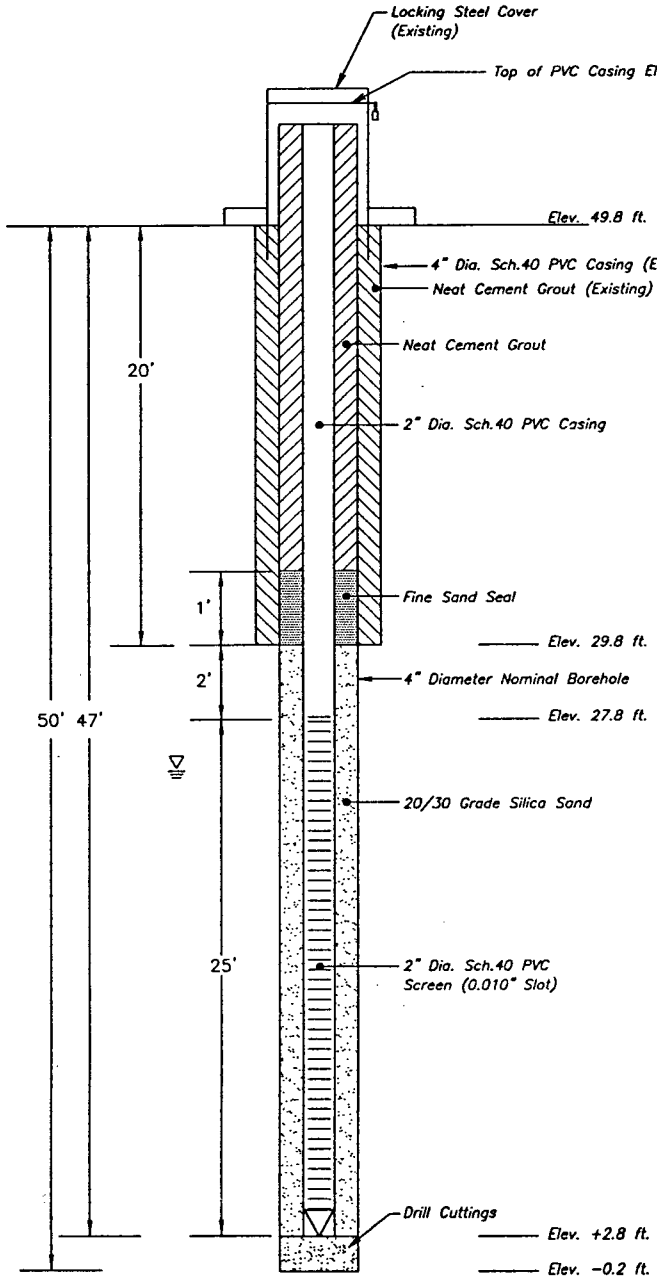
If you have any questions pertaining to the work performed at the site, please do not hesitate to contact me at (813) 623-6646.

Yours very truly,
QORE, Inc.

Lawrence J. Maron, P.E.
Senior Engineer

Attachment

cc: Mr. John Powers – Pasco County Resource Recovery Facility
Mr. Jason Gorrie - CDM




REPAIR OF 4MW-7

ALL ELEVATIONS REFERENCED TO NGVD OF 1929
CASING AND GROUND SURFACE ELEVATIONS
PROVIDED BY PASCO COUNTY

| PASCO COUNTY UTILITIES SERVICES | DATE | JOB NO. | PLATE NO. |
|---|---|---|---|
| | 12/3/01 | 27-2440W | 1 |

QORE™
PROPERTY SCIENCES

1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646

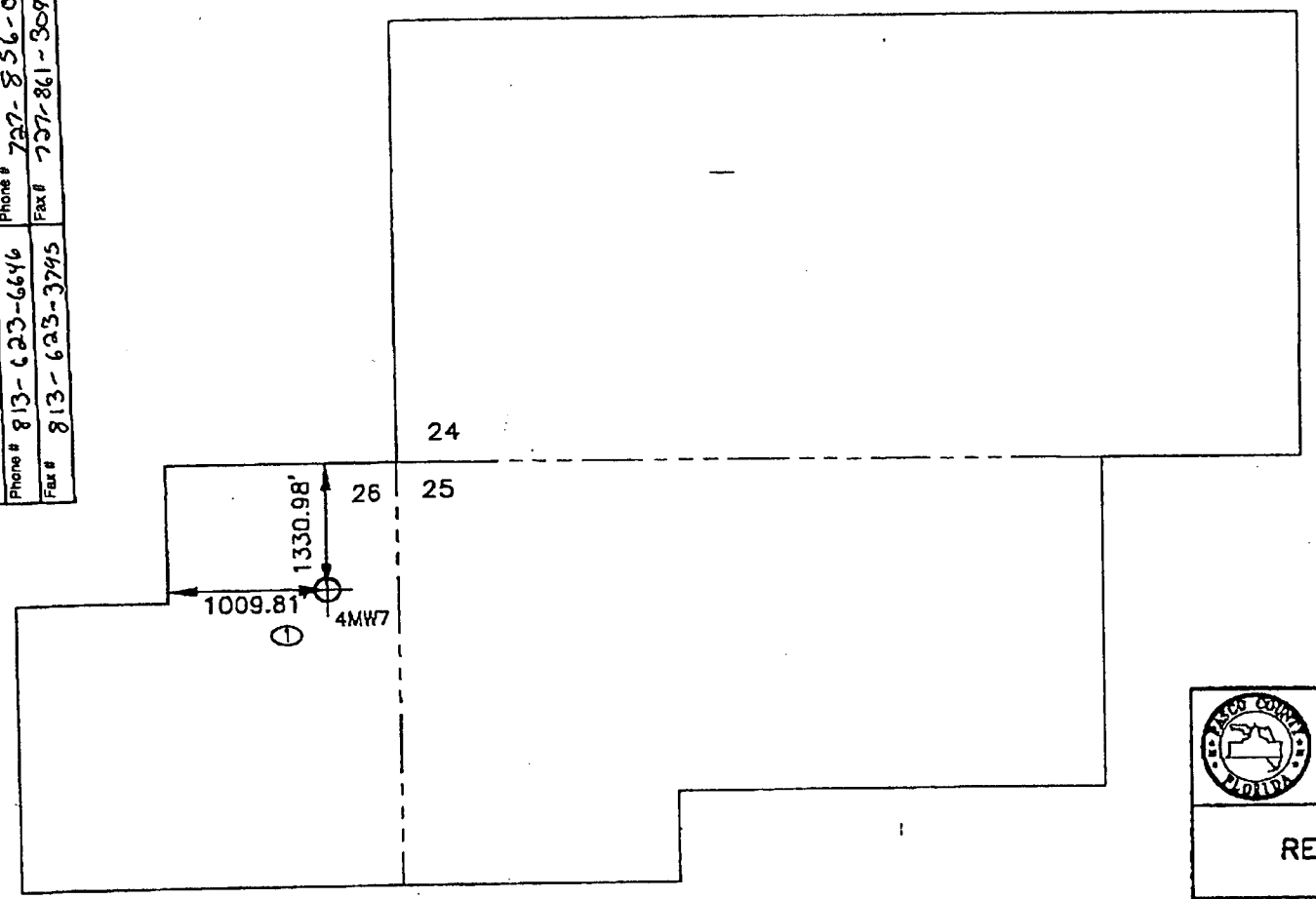
WELL CONSTRUCTION
REPAIR OF WELL 4MW-7

WEST PASCO CLASS III LANDFILL
PASCO COUNTY, FLORIDA

WELLCON4MW7

Post-it® Fax Note 7671 | Date 11/30 | # of pages ▶ 1
To Larry Mason | From John Power
Co./Dept. Gore | Co. Pasco County
Phone # 813-623-6646 | Phone # 727-856-0119
Fax # 813-623-3795 | Fax # 727-861-3099

# SECTIONS 24,25 & 26, TWP. 24 S., RNG. 17 E.




N

NOT TO SCALE

NOTES:

1. State Plane coordinates shown for the wells are based on the 1927 adjustment using control stations F16-057 and C15-058
2. The Latitude and Longitude for the wells are based on using 1983 adjustment.
3. Elevations shown hereon are based on the N.G.V.D. OF 1929, derived from P0227-003, elevation 53.32

| | POINT | NORTHING | EASTING | GROUND ELEV. | PVC ELEV. | CONC. ELEV. | LATITUDE NORTH | LONGITUDE WEST |
|---|---|---|---|---|---|---|---|---|
| ① | 4MW7 | 1468320.64811 | 473329.60661 | 49.8 | 52.52 | N/A | 28°22'18.59" | 82°34'06.82" |

PASCO COUNTY ENGINEERING SERVICES DEPARTMENT
7530 LITTLE ROAD
NEW PORT RICHEY, FL. 34654

## MONITOR WELLS RESOURCE RECOVERY FACILITY 4MW7

| DISK/FILE: | COORD-FILE X-9332T.CRD | DWG-FILE: 4MW7.DWG | W.O.# X-9333.00 |
|---|---|---|---|
| DATE OF SKETCH: 13-NOV-2001 | DRAWN: RFP | CHECK: | SHEET 1 OF 1 |

303

# Solid Waste Permit
## QA/QC Construction Inspection Form

Facility: W PASCO C III

Inspecting Engineer: K FORD

Date Inspected: 12/18/01

Inspection Type:

Permitting [ ]

Construction QA/QC [ ]

Facility Type: CLASS III LF

Looks ok - all outside slope covered with no Erosion

Fill out the above documenting all inspections of facilities for permitting and/or construction QA/QC purposes. Please place in my basket within 3 days of inspections.

(g) Final cover design.

1. Landfills shall have a final cover designed to minimize infiltration and erosion, which shall include a barrier layer consisting of a soil layer, a geomembrane, or a combination of a geomembrane with a low permeability material. All geosynthetic and soil components used in the final cover shall meet the standards and specifications contained in Rules 62-701.400(3)(d)1. and 2., (3)(d)5.-11., (e), and (f). For lined Class I and Class II landfills, the barrier layer shall have a permeability which is substantially equivalent to, or less than, the permeability of the bottom liner system. If the landfill uses a geomembrane in the bottom liner system, the barrier layer shall also incorporate a geomembrane. For unlined Class I and Class II landfills, the barrier layer shall have a permeability of $1 \times 10^{-7}$ cm/sec or less. For Class III landfills, the barrier layer shall have a permeability of $1 \times 10^{-5}$ cm/sec or less. For Class III landfills which accepted only yard trash, no barrier layer is required; instead, final cover shall consist of a 24-inch thick soil layer, the upper six inches of which shall be capable of supporting vegetative growth.

2. If the barrier layer consists only of soil, it shall be at least 18 inches thick, installed in 6-inch thick lifts, and shall have a final, 18-inch thick layer of soil that will sustain vegetation to control erosion placed on top of the barrier layer.

3. If the barrier layer consists only of a geosynthetic clay liner (GCL), a protective soil layer at least 24 inches thick shall be placed on top of the GCL with the upper six inches being able to sustain vegetative growth. The GCL shall be placed on a protective soil layer at least six inches thick. Material specifications and installation methods, which may include a drainage layer between the GCL and the protective soil layer over the GCL, shall be adequate to protect the barrier layer from root penetration, resist erosion, and remain stable on the final design slopes of the landfill.

4. If a geomembrane is used in the barrier layer, it shall be a semi-crystalline thermoplastic with at least 40 mils average thickness, as defined by method GRI GM13, or a non-crystalline thermoplastic at least 30 mils thick, within the tolerances specified in method PGI 1197, with a maximum water vapor transmission rate of 2.4 g/($m^2$ x day), have chemical and physical resistance to materials it may come in contact with, and withstand exposure to the natural environmental stresses and forces throughout the installation, seaming process, and settlement of the waste during the closure and long-term care period. A protective soil layer at least 24 inches thick shall be put on top of the geomembrane. Material specifications, installation methods, and compaction specifications, which may include a drainage layer between the geomembrane and the protective soil layer, shall be adequate to protect the barrier layer from root penetration, resist erosion, and remain stable on the final design slopes of the landfill. This layer shall include topsoil or soils that will sustain vegetative growth.

5. The final cover design shall include an evaluation of the stability of the cover system and the disposed waste. This evaluation shall include an analysis of the potential for slides along the weakest interface of the final cover system and of the potential for deep seated rotational or translational failures through the waste and the final cover.

6. An applicant may use an alternate design for the barrier layer, or parts of the barrier layer, upon a demonstration that the alternate design will result in a substantially equivalent rate of storm water infiltration through the final cover. Any alternate design shall be reviewed by the Department as part of its review of the closure design plan.

7. Nothing herein shall preclude the Department from requiring more stringent final or temporary cover designs in a permit or consent order if necessary to protect the public health or the environment because of the nature of wastes received or site specific geological or

Rob Susan

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 11/29/01

Time 9:45

Subject CIII & WT DESIGNS & COSTS

Permit No.

County PASCO

M CURTIS ROOS

Telephone No. 2890750

Representing LAW

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

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

WE DISCUSSED #4 (GAS SYSTEM DESIGN) AND #5 (WT FACILITY DESIGN) FOR W PASCO CIII - SUSAN'S NOV 15th LETTER.

I EXPLAINED THAT THE CIII HAS 4 - 3.5 AC CELLS => 14 AC

I SUGGESTED ONE GAS VENT IN EACH CLOSED CELL MAY WORK - AND HE MUST RESEARCH AND DECIDE ON THE DESIGN

I SUGGESTED $100/TON IS WIDELY ACCEPTED AS THE COST TO DISPOSE OF WT BUT MAY REQUIRE A 3rd PARTY EST.

I EXPLAINED THEIR IS NO APPROVED CLOSURE PLAN OR DESIGN AND IT MUST MEET THE RULE FOR ESTIMATES

(continue on another sheet, if necessary)

Signature [signature]

Title

PA-01
1/96
pap

Bob

Do you have any problem with approval to use 18" clay & 18" soil ⇒ 36" for closure of W Pasco CIII LF?

[illegible]
11/29/01

No

4 GAS VENTS
24" DIAMETER
25' DEEP

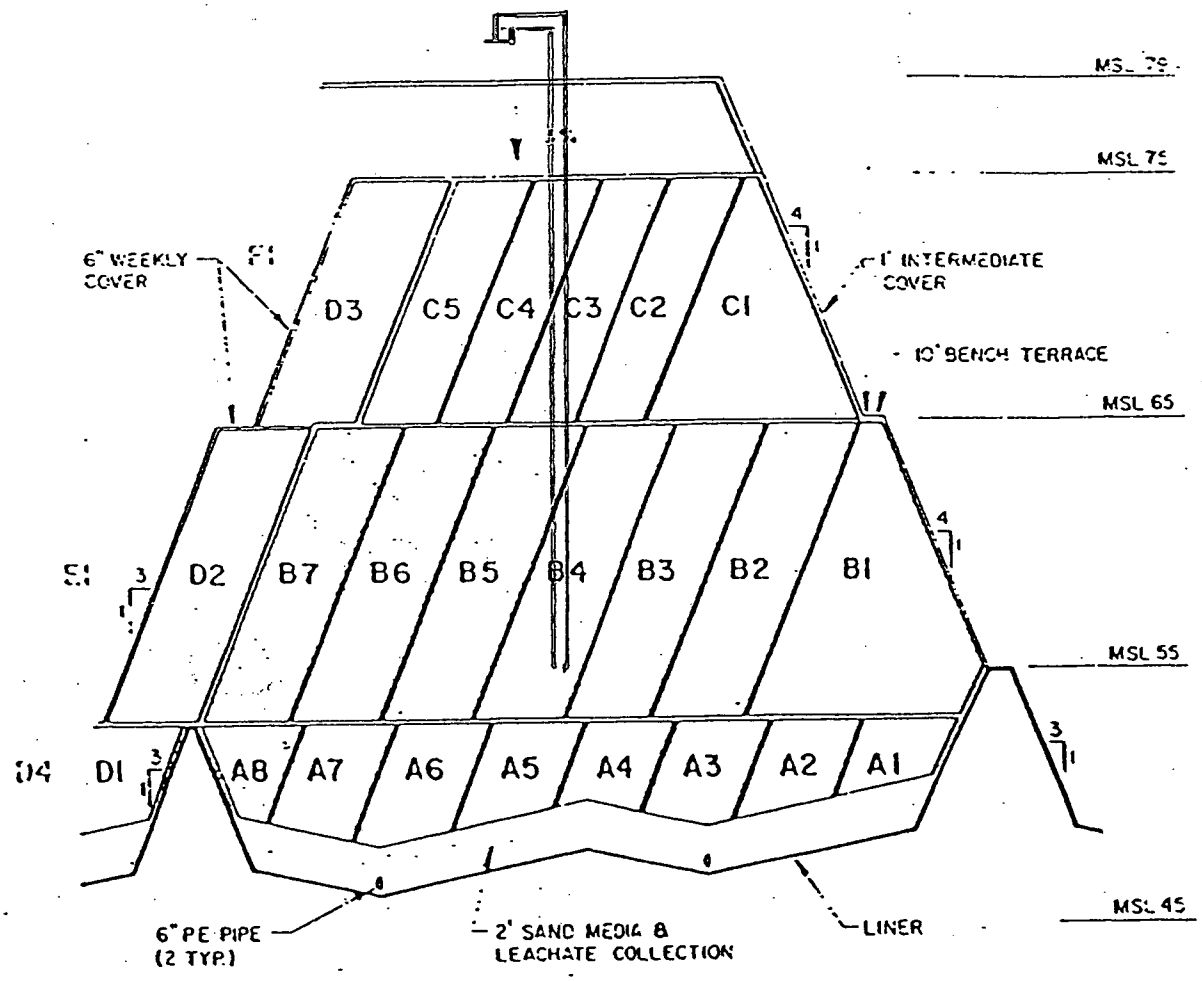
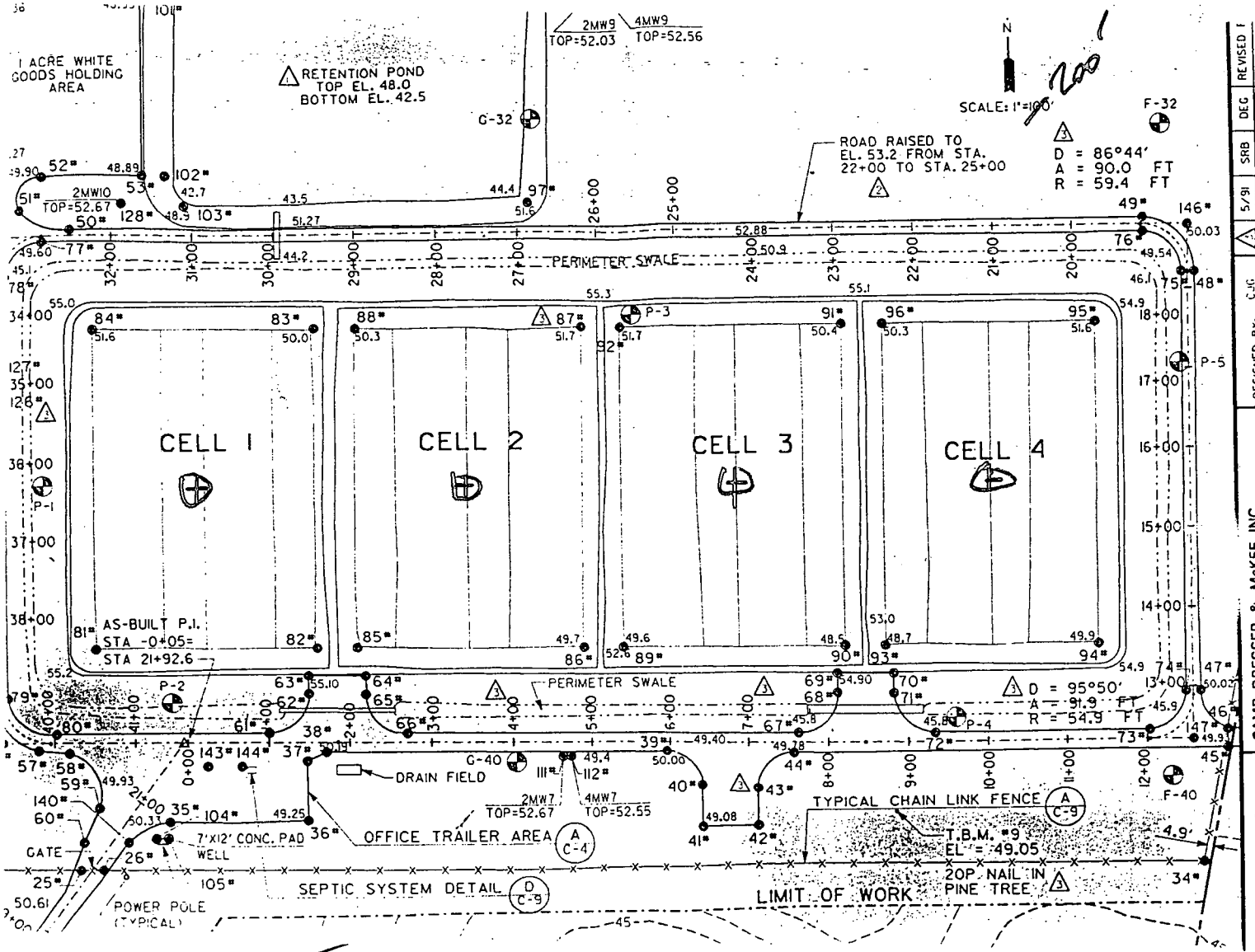



FIGURE Nº 2




C Cells III
14.2 Acres

feet but may vary depending on specific operations and daily volume of waste, width of working face, and good safety practices. The West Pasco Class III working face will be only wide enough to accommodate vehicles discharging waste, and to control exposed area and conserve cover material. A temporary berm will be constructed around the working face to minimize the formation of leachate. The temporary berm will be moved as the working face/lift progresses.

Initial cover will be applied to solid waste disposal units in order to minimize any adverse environmental, safety, or health affects such as those resulting from birds, blowing litter, odors, disease vectors, or fires. Initial cover at the solid waste disposal units will be applied at the end of each working week. The initial cover will be comprised of soil material and be six inches in compacted thickness.

Intermediate cover, in addition to six-inch initial cover, will be applied and maintained within seven days of disposal unit completion if additional solid waste will not be deposited within 180 days of disposal unit completion. The intermediate cover, when disposal to the initial fill phase and disposal activity is shifted to a new adjacent disposal unit for more than 180 days, will be graded to provide a surface slope and will also be seeded or sodded with grass to further promote run-off and minimize infiltration. When disposal activity is resumed in the disposal unit, the intermediate cover will be pushed aside and stockpiled for use as initial cover for the resumed disposal activity.

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. Areas of final cover will be seeded with grass or other suitable cover.

A litter policing operation shall be employed to keep litter from leaving the working area of the landfill. Litter outside the working area shall be picked up by landfill employees within 24 hours. Some litter may be exposed through the initial cover if it is in traffic areas and away from public view.

8. Operation of Leachate Controls

Each disposal unit is separated by a lined berm of 4'0 (plus); there is no liner penetration on the berm liner. Additionally, to prevent leachate contamination or backflow, there is no piping connection between any of the cell units. Leachate flows via gravity to two identical underground storage tanks located adjacent to the disposal units. A detailed sketch of both leachate holding tanks and the four cells showing piping to the holding tanks is attached as Figure 4. From the tanks, leachate is pumped directly to the adjacent Shady Hills Wastewater Treatment Facility. Exterior valves from Cells 2 and 3 to the leachate tank(s) are isolated and will remain closed until such time as waste is placed in the cells.

100386
92303

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

November 15, 2001

Mr. Doug Bramlett, Assistant County Administrator
Pasco County Utilities Services
7536 State Street
New Port Richey, FL 34654

RE: Financial Assurance Cost Estimates
West Pasco Class III Landfill,
Permit No.: SO51-267334, Pending permit #26255-001-SO, Pasco County

Dear Mr. Bramlett:

This letter is to acknowledge receipt of the revised financial assurance cost estimates dated October 10, 2001 (received October 18, 2001), prepared by Law Engineering and Environmental Services, Inc., for the closing and long-term care of the West Pasco Class III Landfill. The cost estimates received October 18, 2001 are not approved. Additional information is needed to fully evaluate the estimates submitted. Please respond to the following:

**CLOSING COSTS:**

1. Cover Material, $0.22/SY. Table 2-3, Appendix F, page A-3. Please provide documentation which indicates that this cost includes *delivery and installation* of the material.

2. Top Soil, 64,533 CY. Please clarify if this quantity is as-placed or as-received. The information in Attachment G, J.T Branch & Sons quote does not indicate that the price includes placement/spreading of the material. Since the J.T. Branch & Sons quote is dated May 1, 2000 and is only valid for 365 days, please provide an updated quote.

3. Stormwater Control. Please provide the basis for this decrease from the July 2001 submittal.

4. Gas Control, N/A. The information indicates that the approved closure plan does not include a gas control system for this facility. Since Rule 62-701.530, F.A.C., *requires* that landfills that receive biodegradable wastes shall have a gas monitoring and control system designed to prevent explosions and fires and to minimize off-site odors and damage to vegetation, it appears that the closure plan does not comply with the requirements of the Rule. Since Class III landfills receive biodegradable wastes, please include a cost for installation of a gas monitoring and control system.

5. Waste Tire Site - $35.00/ton. The information submitted in Attachment G (Diggers Towing and Recovery) does not appear to be a valid cost estimate. The disposal location was not specified, and Diggers Towing and Recovery does not appear to be a registered waste tire collector. Please provide a revised estimate for the maximum quantity of waste tires, processed tires and residuals (i.e. off-road tires, scraps, rims, etc.) which may be at the site at any time. The costs must include loading, hauling, disposal and de-rimming if appropriate.

**LONG TERM CARE COSTS:**

6. Maintenance of gas migration/control system, N/A. Please provide a cost for this item.

7. Maintenance of Cover. Please provide the basis for the reduction in quantity from the July 2001 submittal (1000 sf vs. 1000 sy). The estimated amount of sodding/soil (0.2% of the total area per year) seems low. Please provide the basis for this estimate.

The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, Tampa office **within thirty (30) days** of this notice. In order to expedite the review, please provide all responses directly to the writer. If you have any questions, you may contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, P.E.
Solid Waste Section
Southwest District

sjp
cc: Robert J. Sigmond, Utilities Fiscal Services/Special Project Director, Pasco County, 7530 Little Road, S-204, New Port Richey, FL 34654
Curtis Roos, P.E., Law Environmental, 4919 W. Laurel Street, Tampa, Fl 33623
Fred Wick, FDEP, Tallahassee, w/attachment
Robert Butera, P.E., FDEP Tampa
Kim Ford, P.E., FDEP Tampa

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

November 2, 2001

Mr. John Power, P.E.
Pasco County
7530 Little Road
New Port Richey, FL 34654

3rd

**Re: West Pasco Class III Landfill**
**Pending Permit No.: 26255-001-SO, Pasco County**

October 4

Dear Mr. Mannella:

This is to acknowledge receipt of the additional information in support of your permit renewal application, received ~~July 18~~, 2001 for operation of the West Pasco Class III Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your permit application remains incomplete. This is the Department's 3rd request for additional information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste applications [Chapters 62-701, Florida Administrative Code (F.A.C.)]. Please provide:

1. **62-701.510.** A response to each of Mr. John Morris's comments expressed in his November 2, 2001 memorandum, attached. You may call Mr. Morris at extension 336 to discuss your response to this item.

2. **62-701.630.** Proof of financial assurance.

**Please provide all responses that relate to engineering required for operation, signed and sealed by a professional engineer. Responses that relate to the facility operation should be included as part of the operations plan. All replacement pages should be numbered, and with revision date.**

"NOTICE! Pursuant to the provisions of Section 120.60, F.S., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Please submit your response to this letter as one complete package. On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab
Attachment

cc: Douglas Bramlett, Pasco County
Jason Gorrie, P.E., CDM
Robert Butera, P.E., FDEP Tampa
John Morris, P.G., FDEP Tampa
Susan Pelz, P.E., FDEP Tampa

Flo[illegible]a Department of
# Environmental Protection

## Memorandum

**TO:** Kim Ford, P.E.
**FROM:** John R. Morris, P.G. JRM
**DATE:** November 2, 2001
**SUBJECT:** West Pasco Class III Landfill
Permit Renewal Application
Hydrogeologic and Monitoring Review Comments
**cc:** Robert Butera, P.E.

---

I have reviewed the following submittals that provide responses to the request for additional information in support of the permit renewal application for the referenced facility:

- Correspondence prepared by Camp Dresser & McKee, Inc. (CDM), dated October 3, 2001, received October 4, 2001; and

- Correspondence prepared by QORE Property Sciences, Inc. (QORE), dated and received October 1, 2001.

My review focused on the hydrogeologic and monitoring aspects of the facility. Additional information is needed to evaluate the adequacy of the monitoring plan and its proposed modification. Please have the applicant address the following comments. The comment numbers are consistent with my memoranda dated March 20, 2001 and August 14, 2001.

**GROUND WATER MONITORING PLAN EVALUATION (Rule 62-701.510(9)(b), F.A.C.)**

Section 1.2 – Ground Water Monitoring Plan

1. The clarification of the identification numbers for wells 2MW-3A and 4MW-3A, and the submittal of a revised Figure 1 in Attachment 4 are noted. **No additional information is requested.**

Section 2.1 – Data Tabulation

2. The indicated revisions to the analytical results summary tables do not appear to be reflected in Tables 2-1 through 2-4 provided in Attachment 6. Please review the following items and provide revisions, as appropriate:
   a. The revisions to Tables 2-2, 2-3 and 2-4 to include the results for vinyl acetate, vinyl chloride, and xylenes are noted. **No additional information is requested.**
   b. The revision to Table 2-1, to reflect a mercury concentration of 0.004 mg/L for the Quarter 1, 1999 sampling event is noted. **No additional information is requested.**
   c. A turbidity result of 0 NTU is provided in Table 2-1 for the Quarter 3, 1999 sampling event, however the report provided by Pasco County indicated a turbidity result of 1.7 NTU for the same sampling event. Please revise Table 2-1 as appropriate.
   d. A methyl chloride result of 4.18 $\mu$g/L is provided in Table 2-1 for the Quarter 3, 1999 sampling event, however the report provided by Pasco County indicated a methylene chloride result of 4.18 $\mu$g/L for the same sampling event. Please revise Table 2-1 as appropriate.
   e. Turbidity results of 0.01 NTU are provided in Tables 2-1, 2-3, and 2-4 for the Quarter 3, 2000 sampling event, however the report provided by Pasco County for this sampling event indicated that turbidity was not analyzed. Please revise Tables 2-1, 2-3, and 2-4 as appropriate.

3. The comment regarding submittal of results of future ground water samples with detection levels low enough to allow comparison with ground water standards was previously addressed. **No additional information is requested.**

4. The comment regarding leachate analytical results was previously addressed. **No additional information is requested.**

Section 2.2 – Graphical Presentations

5. The comment regarding mercury concentrations presented on Figure 2-1 was previously addressed. **No additional information is requested.**

Section 3.1 – Data Tabulation

6. The response that indicated the ground water elevation reported for well 4MW-9 during Quarter 3, 2000 was 25.3 feet and that there was no indication of localized ground water mounding is noted. **No additional information is requested.**

7. The revision of Table 3-2 to include the elevations of the top and bottom of the well screen/open hole interval for each well is noted. **No additional information is requested.**

Section 3.2 – Well Hydrographs

8. The revision of Figure 3-1 to reflect the ground water elevation for well 4MW-9 during Quarter 3, 2000 indicated in comment No. 6, above, is noted. **No additional information is requested.**

Section 3.3 – Summary/Interpretation

9. The acknowledgement of the Department's intention to require the repair/replacement of existing well 4MW-7, the collection of supplemental ground water elevation data at a monthly frequency for one year to characterize seasonal fluctuations, and the submittal of an evaluation of the direction/rate of ground water flow is noted. **No additional information is requested.**

10. The acknowledgement of the Department's intention to allow use of hydraulic conductivity data from the adjacent Class I disposal areas in the calculation of ground water velocity at the Class III facility is noted. **No additional information is requested.**

Section 4.1 – Sampling Locations

11. The revision to the proposed work plan to repair or replace well 4MW-7 submitted by QORE (received October 1, 2001) that clarifies the proposed elevation of the well screen is noted. Based on the ground water elevation range provided by QORE, it appears appropriate to repair/replace well 4MW-7 with no more than 20 feet of well screen. In the event that well 4MW-7 can be repaired, the attached copy of Plate No. 1 provided by QORE (received October 1, 2001) has been modified to indicate that the bottom of the well shall not be installed lower than about elevation +7 feet. In the event that well 4MW-7 must be replaced, the Department does not object to the proposed construction details provided on Plate No. 1.

12. The acknowledgement of the Department's intention that the assessment of the adequacy of the designated background and downgradient monitor wells be included as part of the evaluation of the direction of ground water flow described in item No. 9, above, is noted. **No additional information is requested.**

Section 4.2 – Sampling Frequency

13. The acknowledgement of the Department's intention that the assessment of ground water velocity be included as part of the evaluation of the rate of ground water flow described in item No. 9, above, is noted. **No additional information is requested.**

GAS MIGRATION AND ENGINEERING EVALUATION (Rule 62-701.400(10), F.A.C.)

Section 1.0 -- Introduction

14. The comment regarding revision of the Operations Plan to include quarterly gas monitoring at the existing surficial aquifer wells was previously addressed. **No additional information is requested.**

Please have the applicant contact me at (813) 744-6100, extension 336, to discuss these comments if there are any questions.

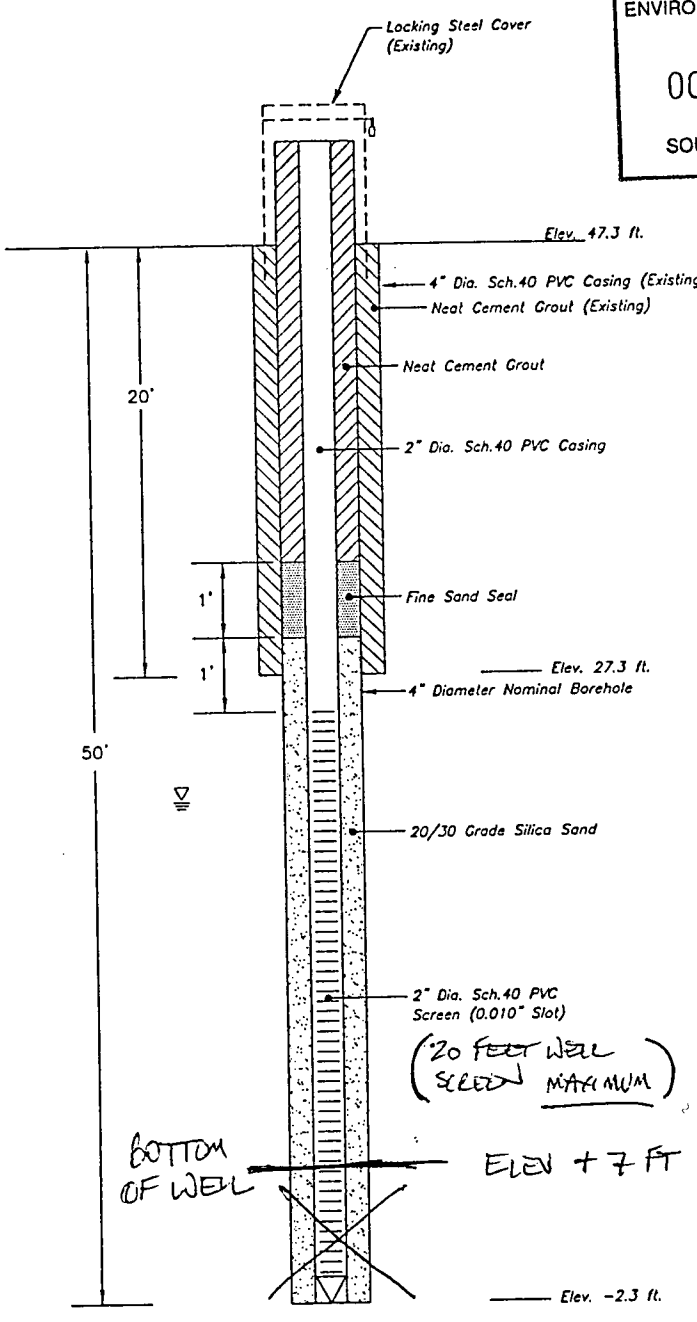
Attachment - Plate No. 1 (revised), QORE, proposed well construction repair/replacement of 4MW-7

jrm

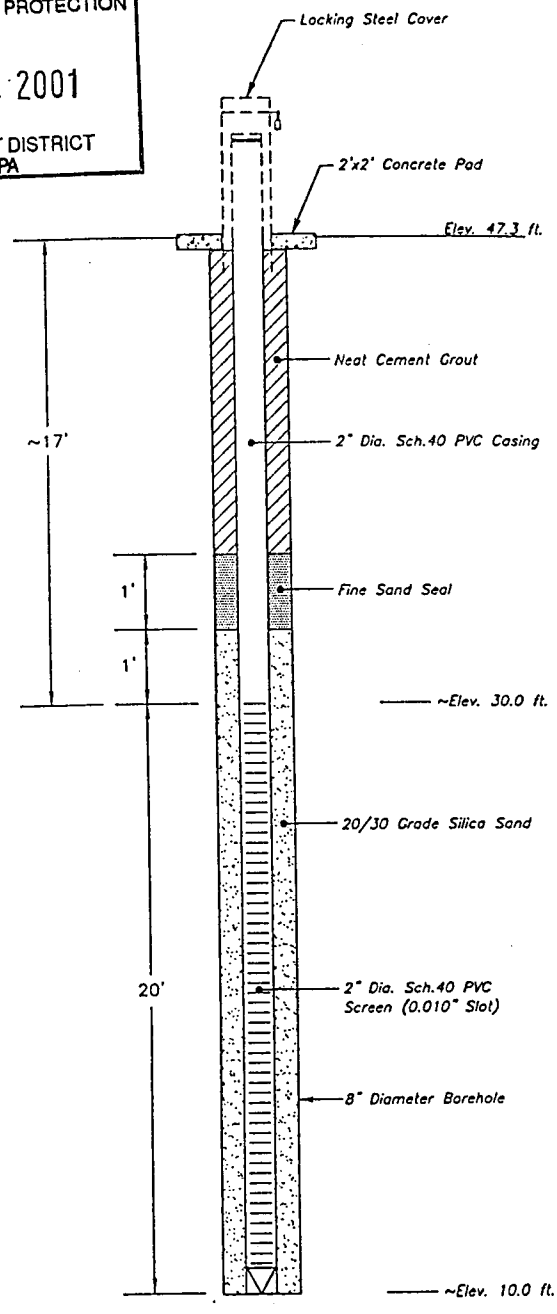
FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

OCT - 1 2001

SOUTHWEST DISTRICT
TAMPA




REPAIR OF 4MW-7




4MW-7 REPLACEMENT WELL
(If Repairs are Ineffective)

REVISED 9/26/01

| PASCO COUNTY UTILITIES SERVICES | DATE 6/29/01 | JOB NO. 27-2440W | PLATE NO. 1REV |
|---|---|---|---|
| QORE™ PROPERTY SCIENCES<br>1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646 | PROPOSED WELL CONSTRUCTION<br>REPAIR/REPLACEMENT OF<br>WELL 4MW-7<br>WEST PASCO CLASS III LANDFILL<br>PASCO COUNTY, FLORIDA | | |

WELLCON

Florida Department of

**Memorandum** **Environmental Protection**

**TO:** Kim Ford, P.E.
**FROM:** John R. Morris, P.G. JRM
**DATE:** November 2, 2001
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Permit Renewal Application
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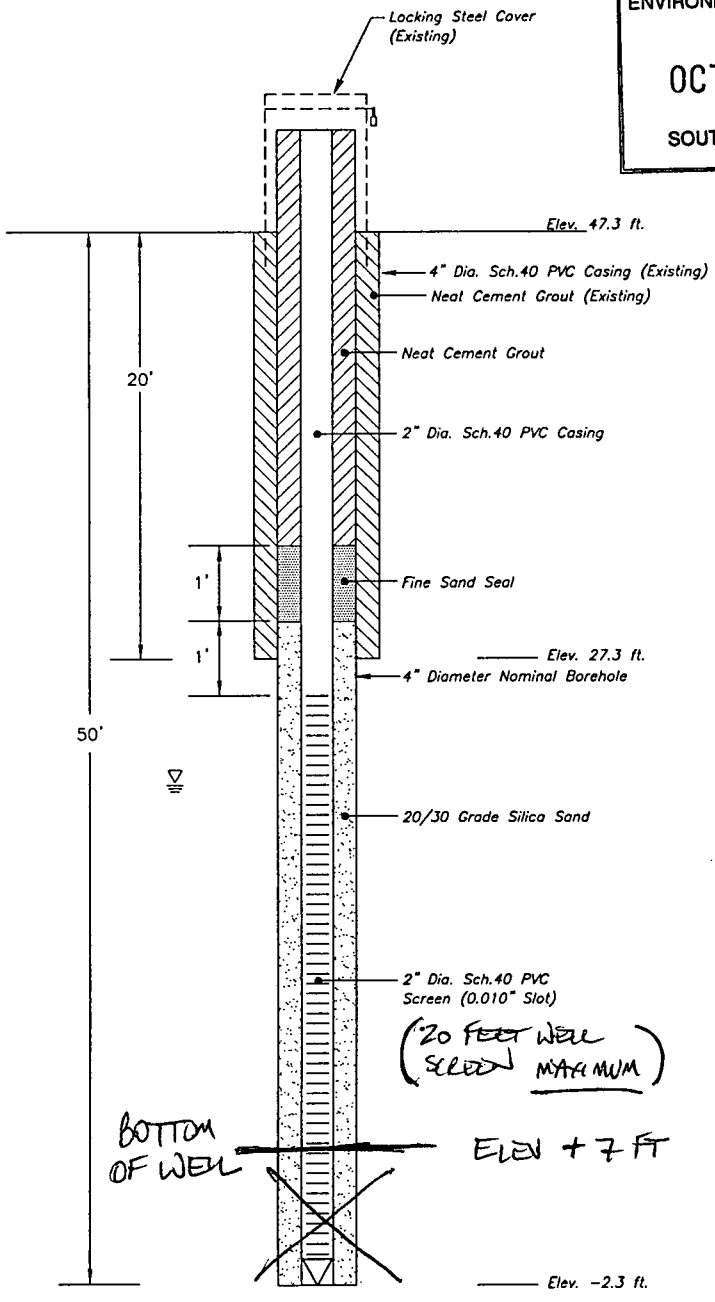
jrm

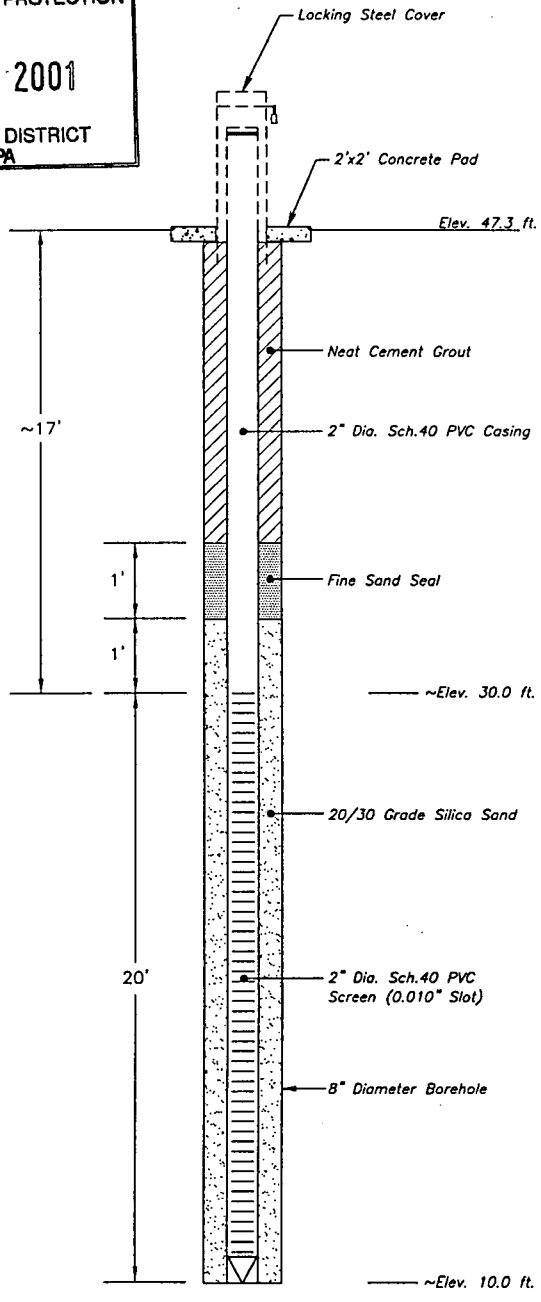
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

OCT - 1 2001

SOUTHWEST DISTRICT TAMPA




REPAIR OF 4MW-7




4MW-7 REPLACEMENT WELL
(If Repairs are Ineffective)

REVISED 9/26/01

| PASCO COUNTY UTILITIES SERVICES | DATE 6/29/01 | JOB NO. 27-2440W | PLATE NO. 1REV |
|---|---|---|---|
| QORE™ PROPERTY SCIENCES<br>1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646 | PROPOSED WELL CONSTRUCTION<br>REPAIR/REPLACEMENT OF<br>WELL 4MW-7<br>WEST PASCO CLASS III LANDFILL<br>PASCO COUNTY, FLORIDA | | |

WELLCON

# **CDM** Transmittal

**CDM** Camp Dresser & McKee Inc.

1715 North Westshore Blvd. Suite 875
Tampa, Florida 33602
(813) 281-2900
(813) 288-8787

RECEIVED
NOV 0 1 2001
Department of Environmental Protection
BY SOUTHWEST DISTRICT

| | | | |
|---|---|---|---|
| **To:** | Kim Ford, P.E. | **From:** | Jason Gorrie, P.E. |
| **Organization/ Address:** | FDEP<br>Solid Waste Section<br>Southwest District Office | **Date:** | November 1, 2001 |

**Re:** West Pasco Class III Landfill – Revised Operations Plan

**Job #:**

**Via:** *Mail:* *Overnight:* *Courier:* ✓

**Enclosed please find:**

| | | | |
|---|---|---|---|
| **For your information** | | **Approved** | |
| **For your review** | ✓ | **Approved as noted** | |
| **For your signature** | | **Returned to you for correction** | |

● **Message:**

Enclosed are two copies of the final Operations Plan for the West Pasco Class III Landfill, incorporating the revisions that you and I discussed on the phone earlier today. Please advise if additional information is necessary.

c: John Power, Pasco County

Signed

WASTE MANAGEMENT TECHNICAL SUPPORT
ROUTING FORM

PERMITTED FACILITIES

To: John

From: Km

Date: 10/4/01

Subject: W PASCO CIII RENEWAL

Document Name: _____

Revision Number 2 County: PASCO

Facility Name: _____

Type of Facility: CIII LF

Permit Number: _____ Issue Date: _____

Copy of Permit attached: _____

Document submitted in compliance with permit condition. _____

Document subject to permit timeclock. YES

Day 1: 10/4/01

Day 30: 11/2/01

PATS sheet attached: _____

Enforcement Case/CO/NOV/ associated with this site: —

Files and related documents can be found ATTACHED in FILES

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by Oct 30.

Comments: _____

Module _____

Attachments

D.E.P.
OCT 0 1 2001
Southwest District Tampa

QORE
PROPERTY SCIENCES

October 1, 2001

Mr. John Morris, P.G.
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Re: Requested Information
Proposed Repair/Replacement of Monitor Well 4MW-7
West Pasco Class III Landfill Permit Renewal Application
Pasco County, Florida
QORE Project No. 27-2440W

Dear Mr. Morris,

QORE, Inc. (QORE) is pleased to present this response to select comments that the Florida Department of Environmental Protection (FDEP) had with respect to information submitted to renew the operating permit for the above-referenced facility. More specifically, Camp, Dresser & McKee (CDM) requested that QORE respond to comment no. 11 in the FDEP memorandum dated August 14, 2001 that contained comments from the hydrogeologic and monitoring review of the permit application.

QORE had prepared a plan to repair or replace monitor well 4MW-7 at the West Pasco Class III Landfill. This plan was contained in QORE's letter to Mr. John Morris of the FDEP dated July 9, 2001, submitted as Attachment 11 of the "Response to Request for Additional Information" submitted by CDM to the FDEP on July 12, 2001. Comment no. 11 from the August 14, 2001 FDEP memorandum requested that the proposed elevation of the well screen be provided (not just the depth) as well as justification for the screen interval proposed in order to meet the requirements of Rule 62-701.510(3)(d), Florida Administrative Code (F.A.C.).

Based on information provided by Pasco County and CDM, elevation data for well 4MW-7 is as follows:

| Item | Depth, feet bgs* | Elevation, feet msl |
|---|---|---|
| Top of casing | - | 50.38 |
| Ground surface | - | 47.3 |
| Casing length | 20 | - |
| Bottom of casing | - | 27.3 |
| Total well depth | 50 | - |
| Bottom of well | - | -2.7 |

bgs = below ground surface

1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646 fax (813) 623-3795

As noted in QORE's June 11, 2001 letter, the open hole section of the well is apparently blocked or the borehole walls have "squeezed in" at a depth of approximately 28 feet, corresponding to an elevation of around +22 feet msl. Water was reportedly measured at this depth by Pasco County sampling personnel, although the depth of water has been too small to sample. Assuming that the water reflects the ground water table and is not "perched" on the borehole blockage, the ground water level is around +22 feet msl.

Past ground water elevation data collected by Pasco County was presented in Table 3-1 in Attachment 9 of CDM's July 12, 2001 "Response to Request for Additional Information". This table shows that, from the third quarter of 1995 through the third quarter of 2000, the ground water elevation in well 4MW-7 has been as high as 33.83 feet msl; however, for 5 out of the 11 quarters of data presented, the water level has been at or below the blockage (22 feet msl) and for 2 additional quarters, the level has been near the bottom of the casing (27 feet msl). This water level data indicates that the ground water level can fluctuate over a range of 11 to 12 feet.

With respect to well screen interval, Rule 62-710.510(3)(d), F.A.C. requires that well screens be located "to readily detect representative groundwater conditions within the saturated thickness of the uppermost aquifer within the zone of discharge. Wells monitoring the unconfined water table shall be screened so that the water table can be sampled at all times." With the proposed repair to well 4MW-7, the well will be deepened to be able to sample the ground water when lower ground water conditions prevail.

The well construction proposed for both repair and replacement have, however, been revised slightly to reflect the higher end of the water level fluctuation range presented herein. The diagram of the well construction contained in QORE's July 9, 2001 plan has been revised and is attached. The revision on the well replacement construction is the extension of the well screen to essentially the bottom of the existing casing. The replacement well construction has been revised to raise the top of the screen to approximately elevation +30 feet msl. Since the water level is known to drop as much as 8 feet below the proposed elevation of the top of the screen, a screened length of 20 feet is believed to be the minimum practical to ensure adequate water for sampling at all times.

* * * *

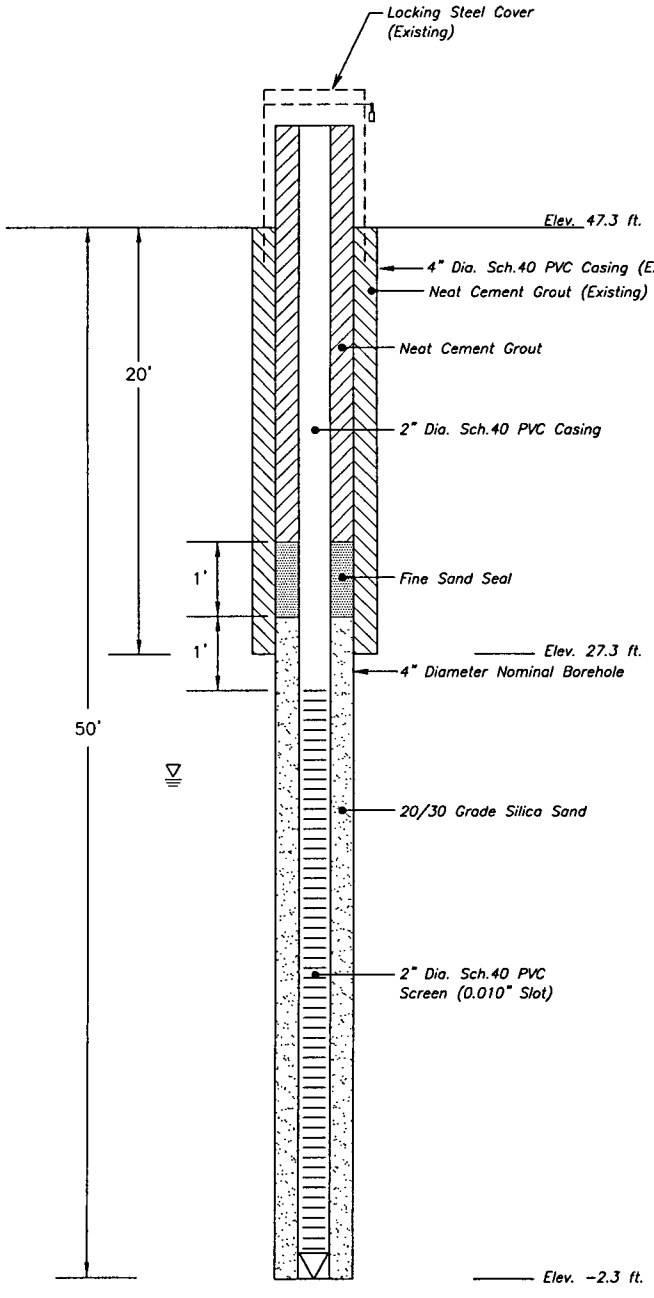
QORE appreciates this opportunity to be of continuing service to Pasco County and CDM on this project. If you have any questions pertaining to this matter, please to not hesitate to contact us.

Yours very truly,
QORE, Inc.

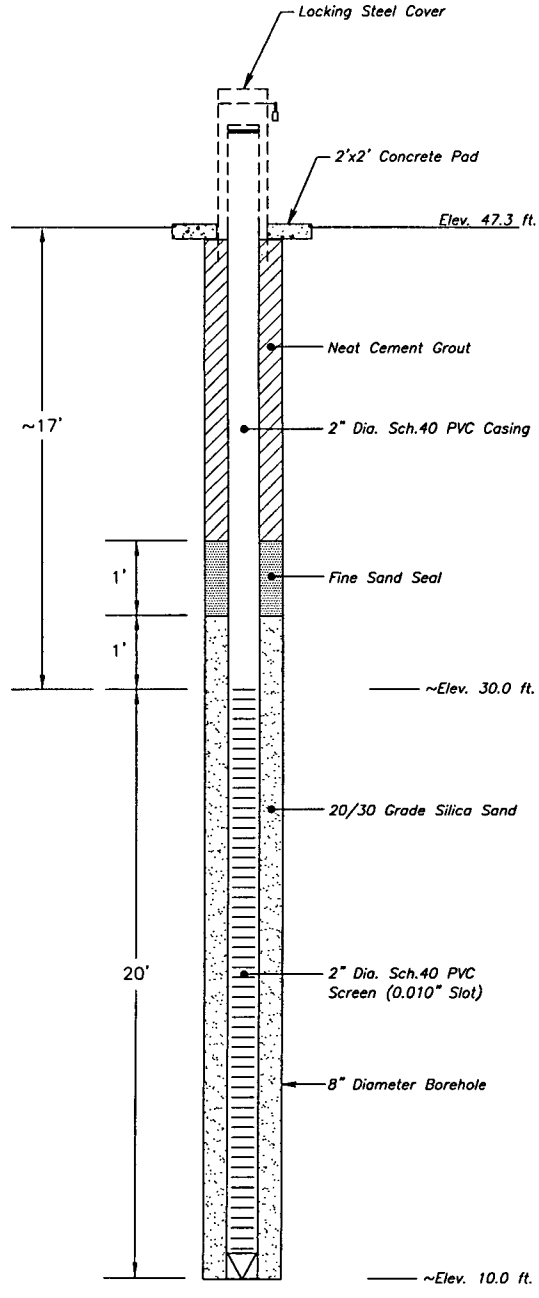
Lawrence J. Maron, P.E.
Senior Engineer

Attachment

cc: Jason Gorrie - CDM




REPAIR OF 4MW-7




4MW-7 REPLACEMENT WELL
(If Repairs are Ineffective)

REVISED 9/26/01

| PASCO COUNTY UTILITIES SERVICES | DATE 6/29/01 | JOB NO. 27-2440W | PLATE NO. 1REV |
|---|---|---|---|
| QORE™ PROPERTY SCIENCES<br>1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646 | PROPOSED WELL CONSTRUCTION<br>REPAIR/REPLACEMENT OF<br>WELL 4MW-7<br>WEST PASCO CLASS III LANDFILL<br>PASCO COUNTY, FLORIDA | | |

WELLCON

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary


Mr. Doug Bramlett, Assistant County Administrator
Pasco County Utilities Services
7536 State Street
New Port Richey, FL 34654

August 28, 2001

RE: Financial Assurance Cost Estimates
West Pasco Class III Landfill,
Permit No.: SO51-267334, Pending permit #26255-001-SO, Pasco County

Dear Mr. Bramlett:

This letter is to acknowledge receipt of the revised financial assurance cost estimates dated July 19, 2001 (received July 30, 2001), prepared by Law Engineering and Environmental Services, Inc., for the closing and long-term care of the West Pasco Class III Landfill. The cost estimates received July 30, 2001 are not approved. Additional information is needed to fully evaluate the estimates submitted. Please respond to the following:

**General:**

1. Please be advised that Rule 62-701.630(3) and 40 CFR Part 264.142 as adopted by reference in Rule 62-701.630(6) says the closure cost estimate must:

   a. Equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

   b. Be based on the cost to the owner or operator of hiring a third party to close the facility; and

   c. Not incorporate any salvage value that may be realized from the sale of hazardous (solid) waste, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

**CLOSING COSTS:**

2. Slope and Fill – N/A. Since it is reasonable to expect that the facility will not be graded each day to the exact slopes and grades required for closure, and geosynthetic final covers are not generally placed directly on irregular subgrades which may contain sharp objects, please provide revised costs which include the costs of material and labor, transportation and placement of a suitable soil buffer layer between the geosynthetic final cover and the waste. See also Attachment F, Table 2-3, and Attachment E, Comanco bid

3. Cover Material, $0.22/SY. Table 2-3, Appendix F, page A-3 indicates that the cost is $0.22/SF. Please review the supporting documentation submitted and provide a revised estimate as appropriate. Please provide documentation which indicates that this cost includes delivery and installation of the material.

4. Top Soil, 64,533 CY. Please clarify if this quantity is as-placed or as-received. The information in Attachment G, J.T Branch & Sons quote does not indicate that the price includes placement/spreading of the material. Since the J.T. Branch & Sons quote is dated May 1, 2000 and is only valid for 365 days, please provide an updated quote.

5. Gas Control, N/A. Rule 62-701.530, F.A.C., requires that landfills that receive biodegradable wastes shall have a gas monitoring and control system designed to prevent explosions and fires and to minimize off-site odors and damage to vegetation. Since Class III landfills receive biodegradable wastes, please include a cost for installation of a gas monitoring and control system.

6. Revegetation, Sod, $1.04/SY. Please clarify if this price includes transportation and placement.

7. Landscape Irrigation. Due to the continuing drought conditions, it has come to the Department's attention that watering of newly placed vegetation (sod or seeding) may require substantial resources to ensure that the vegetative cover becomes adequately established. Therefore, please provide revised cost estimates which include a cost for this activity. In the event that an adequate onsite well is available, the cost (material and labor) may only include pumping, hoses, sprinklers required to irrigate the closed facility, or alternatively, may only include rental of a water truck for a specified period of time, or other suitable methods of irrigation.

8. Waste Tire Site - $48.75/ton. It does not appear that the cost listed includes the cost of de-rimming and loading, transportation and disposal of tire residuals. Please provide a revised cost which includes these costs. The Florida Tire Recycling quote in Attachment G id dated July 21, 1999 and is valid only for two years. Since the quote (Attachment G, PU99-727) will expire on September 30, 2001, please provide a revised quote which extends to September 2002.

9. Site specific costs. Please clarify which items include the following costs:
   a. mobilization, demobilization (Attachment E)
   b. survey (Attachment E, Comanco quote or Attachment F, Table 2-2)
   c. erosion control during construction (Attachment E)
   d. insurance, bonds, trench safety act, other general construction costs (Attachment F)
   e. Biannual water quality monitoring report (Attachment G)

**LONG TERM CARE COSTS:**

10. Gas Monitoring. Please review this cost and revise as appropriate. See Comment #5, above.

11. Maintenance of LCS, *Off-site leachate disposal*. The information estimates that approximately 500,000 gallons/year of leachate will be generated after closure. However, current leachate generation records provided to the Department indicate that during 2000, 5,689,580 gallons were generated. The Department acknowledges that after closure, the quantity of leachate which is generated will diminish. However, for the purposes of complying with the financial assurance requirements of Rule 62-701.630, F.A.C., the leachate quantities should be based on either a "worst case" or an expected decrease over time. The Department does not believe that it is reasonable to assume that immediately after closure, the leachate generation will decrease from 474,000 gallons per month to 500,000 gallons per year. Please provide a revised estimate which accounts for the "worst case" leachate generation or a modeled decrease over time.

12. Maintenance of gas migration system, N/A. Please provide a cost for this item. See also Comments #5 and #10, above.

13. Landscape maintenance. Since the Shady Hills Lawn Care quote (Attachment G, PU99-787) will expire on September 30, 2001, please provide a revised quote which extends to September 2002.

The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, Tampa office **within thirty (30) days** of this notice. In order to expedite the review, please provide all responses directly to the writer. If you have any questions, you may contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, P.E.
Solid Waste Section
Southwest District

sjp
cc: Robert J. Sigmond, Utilities Fiscal Services/Special Project Director, Pasco County, 7530 Little Road, S-204, New Port Richey, FL 34654
Curtis Roos, P.E., Law Environmental, 4919 W. Laurel Street, Tampa, Fl 33623
Fred Wick, FDEP, Tallahassee, w/attachment
Robert Butera, P.E., FDEP Tampa
Kim Ford, P.E., FDEP Tampa

Department of
Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

August 15, 2001

Mr. Vince Mannella, P.E.
Pasco County
7530 Little Road
New Port Richey, FL 34654

**Re: West Pasco Class III Landfill**
**Pending Permit No.: 26255-001-SO, Pasco County**

Dear Mr. Mannella:

This is to acknowledge receipt of the additional information in support of your permit renewal application, received July 18, 2001 for operation of the West Pasco Class III Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your permit application remains incomplete. This is the Department's 2nd request for additional information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste applications [Chapters 62-701, Florida Administrative Code (F.A.C.)]. Please provide:

1. **62-701.320(7)(c).** 1) Revisions to the Operations Plan to include a table of contents and list of all referenced figures; and 2) Deletion of references to "the approved closure plan". A closure plan has not been approved. This permit is limited to facility operation only.

2. **62-701.320(7)(h).** Description of how this facility contributes to the County's recycling goals. The West Pasco Recycling Center is considered part of this facility covered by this permit application.

3. **62-701.320(15).** Training plan to demonstrate compliance with the requirements for initial and continued training.

4. **62-701.500(2)(a).** Revision to the Operations Plan to identify the new Solid Waste Facility Manager.

5. **62-701.500(2)(j).** Description of procedures for maintaining and cleaning the leachate collection system.

6. **62-701.510.** A response to each of Mr. John Morris's comments and concerns expressed in his August 14, 2001 memorandum, attached. You may call Mr. Morris at extension 336 to discuss your response to this item.

7. **62-701.630.** Proof of financial assurance. A copy of Pasco County's letter of confirmation from the Department's Tallahassee Solid Waste Section will be sufficient.

8. **62-709.320.** Authorization to operate the yard trash processing facility. A copy of Pasco County's letter of registration confirmation from the Department's Tallahassee Solid Waste Section will be sufficient.

**Please provide all responses that relate to engineering required for operation, signed and sealed by a professional engineer. Responses that relate to the facility operation should be included as part of the operations plan. All replacement pages should be numbered, and with revision date.**

"NOTICE! Pursuant to the provisions of Section 120.60, F.S., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Please submit your response to this letter as one complete package. On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab
Attachment
cc: Douglas Bramlett, Pasco County
Jason Gorrie, P.E., CDM
Robert Butera, P.E., FDEP Tampa
John Morris, P.G., FDEP Tampa

Florida Department of
# Environmental Protection

## Memorandum

**TO:** Kim Ford, P.E.
**FROM:** John R. Morris, P.G. JRM
**DATE:** August 14, 2001
**SUBJECT:** West Pasco Class III Landfill
Permit Renewal Application
Hydrogeologic and Monitoring Review Comments
**cc:** Robert Butera, P.E.

---

I have reviewed the responses to the request for additional information provided by Camp Dresser & McKee, Inc. (CDM), in a letter prepared by Jason Gorrie, P.E., dated July 12, 2001, received July 18, 2001 in support of the permit renewal application for the referenced facility. My review focused on the hydrogeologic and monitoring aspects of the facility. Additional information is needed to evaluate the adequacy of the monitoring plan and its proposed modification. Please have the applicant address the following comments. The comment numbers are consistent with my memorandum dated March 20, 2001.

**GROUND WATER MONITORING PLAN EVALUATION (Rule 62-701.510(9)(b), F.A.C.)**

Section 1.2 – Ground Water Monitoring Plan

1. The response provided by CDM to clarify the correct identification number for wells 2MW-3/3A and 4MW-3/3A appears to be incomplete. The indication that 2MW-3A is the correct designation is noted, however the response does not clarify the correct identification number for well 4MW-3/3A. It is noted that the revised Figure 1 (Attachment 5) shows wells 2MW-3 and 4MW-3. Please submit a revised Figure 1 that is consistent with the correct well designations.

Section 2.1 – Data Tabulation

2. The indicated revisions to the analytical results summary tables do not appear to be reflected in Tables 2-1 through 2-4 provided in Attachment 6. Please review the following items and provide revisions, as appropriate:

a. Tables 2-2, 2-3 and 2-4 do not include the results for vinyl acetate, vinyl chloride, and xylenes.
b. Table 2-1, Quarter 1, 1999 sampling event result for mercury of 0.004 mg/L was indicated to be 0.0004 mg/L by Pasco County.
c. Table 2-1, Quarter 3, 1999 sampling event result for turbidity of 0 NTU was indicated to be 1.7 NTU by Pasco County.
d. Table 2-1, Quarter 3, 1999 sampling event result for methyl chloride of 4.18 $\mu$g/L was indicated to be methylene chloride by Pasco County.
e. Tables 2-1, 2-3, and 2-4, Quarter 3, 2000 sampling event results for turbidity of 0.01 NTU were omitted from the Pasco County report (not analyzed).

3. The response that the results of future ground water samples will be reported at detection levels that allow comparison with ground water standards is noted. **No additional information is requested.**

4. The revisions to Table 2-10 provided in Attachment 7 are noted. It is the Department's intention to prepare the permit condition regarding leachate sampling frequency and analytical parameters to be consistent with the requirements of Rule 62-701.510(6)(c), F.A.C. (rule effective date May 27, 2001). **No additional information is requested.**

Section 2.2 – Graphical Presentations

5. The revision to Figure 2-1 provided in Attachment 8 regarding the mercury concentration reported for well 4MW-3A for the Quarter 1,1999 sampling event is noted. **No additional information is requested.**

Section 3.1 – Data Tabulation

6. The response provided regarding the ground water elevation reported for well 4MW-9 during Quarter 3, 2000 (25.3 or 35.3 feet) appears to be incomplete. The importance of reviewing all available data (including the field notes) to resolve the 10 feet difference in ground water elevation for this sampling event at well 4MW-9 cannot be over-stated. As indicated on Figure 3-1, an elevation of 35.3 feet would represent the highest water level during the period from 3Q95 to 3Q00, and would also represent a significant change when compared with the adjacent monitor wells. In the event that it is confirmed that the correct ground water elevation for this date was 35.3 feet, please provide a discussion of possible reasons for this localized ground water mounding and provide a revised ground water elevation contour map for 3Q00.

7. The revision to Table 3-1 is noted, however the comment was intended to request that the actual elevation of the bottom of existing well 4MW-7 be calculated and inserted into the table to further characterize the relationship between well construction and ground water occurrence at this location. Please modify Table 3-2 to include the elevations of the top and bottom of the well screen/open hole interval for each well. Please include the calculated elevation of the bottom of well 4MW-7 in Table 3-2 that reflects the well depth measurement of 28 feet as indicated in Attachment 11.

Section 3.2 – Well Hydrographs

8. Please revise Figure 3-1 to reflect comment No. 6, above, as appropriate.

Section 3.3 – Summary/Interpretation

9. It is agreed that currently available data is not sufficient to characterize the direction of ground water flow in the vicinity of the Class III Landfill. Rather than requiring further characterization of ground water flow prior to issuance, it is the Department's intention to include a permit condition that requires the repair/replacement of existing well 4MW-7 and the collection of supplemental ground water elevation data at the Class III landfill on a monthly frequency for one year to characterize seasonal fluctuations. This permit condition shall also require the submittal of an evaluation of the direction/rate of ground water flow in the vicinity of the Class III landfill and the adequacy of the existing monitor wells. Please note that a permit modification shall be required if the monitoring program requires changes to reflect site conditions.

10. The Department does not object to the use of the hydraulic conductivity values obtained from slug tests at the adjacent Class I disposal areas in the calculation of ground water velocity at the Class III facility. However, this calculation must include the seasonal range of hydraulic gradients that is representative of the Class III facility. It is the Department's intention that the calculation of ground water velocity be included in the permit condition described in item No. 9, above.

Section 4.1 – Sampling Locations

11. The proposed work plan to repair or replace well 4MW-7 submitted as Attachment 11 (QORE, Inc., dated July 9, 2001) appears to be incomplete. Please revise this work plan to include the proposed elevation of the well screen and provide the requested justification for the screen interval to meet the requirements of Rule 62-701.510(3)(d), F.A.C. Please include the information provided in the response to item No. 7, above, regarding the open hole interval elevations and ground water elevations recorded at well 4MW-7 when justifying the proposed screen elevations and screen length. Please note that the Department intends to maintain the well identification number in the event that the well can be repaired, but a new identification number shall be required if a replacement well is needed.

12. The response that well 4MW-7 has been dry as a result of drawdown associated with operation of the production well that supplies water to the cooling towers appears to be incomplete. The response does not address the information provided in Attachment 11 (QORE, Inc., dated July 9, 2001) that indicated well 4MW-7 has collapsed from an original total depth of 50 feet below land surface to a measured depth of 28 feet below land surface. The response also appears to be inconsistent with the general ground water flow to the northwest that is reported for the nearby Class I disposal areas. It is the Department's intention that the evaluation of the adequacy of the designated background and downgradient monitor wells be included in the permit condition described in item No. 9, above.

Section 4.2 – Sampling Frequency

13. Please refer to item No. 10, above, regarding the calculation of ground water velocity. It is the Department's intention that the calculation of ground water velocity for the Class III landfill be included in the permit condition described in item No. 9, above.

**GAS MIGRATION AND ENGINEERING EVALUATION (Rule 62-701.400(10), F.A.C.)**

Section 1.0 -- Introduction

14. The revision to the Operations Plan to include quarterly gas monitoring at existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 (Attachment 2) is noted. **No additional information is requested.**

Please have the applicant contact me at (813) 744-6100, extension 336, to discuss these comments if there are any questions.

jrm

Florida Department of

**Memorandum** **Environmental Protection**

**TO:** Kim Ford, P.E.
**FROM:** John R. Morris, P.G. JRM
**DATE:** August 14, 2001
**SUBJECT:** West Pasco Class III Landfill
Permit Renewal Application
Hydrogeologic and Monitoring Review Comments
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3. The response that the results of future ground water samples will be reported at detection levels that allow comparison with ground water standards is noted. **No additional information is requested.**

4. The revisions to Table 2-10 provided in Attachment 7 are noted. It is the Department's intention to prepare the permit condition regarding leachate sampling frequency and analytical parameters to be consistent with the requirements of Rule 62-701.510(6)(c), F.A.C. (rule effective date May 27, 2001). **No additional information is requested.**

Section 2.2 – Graphical Presentations

5. The revision to Figure 2-1 provided in Attachment 8 regarding the mercury concentration reported for well 4MW-3A for the Quarter 1,1999 sampling event is noted. **No additional information is requested.**

Section 3.1 – Data Tabulation

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7. The revision to Table 3-1 is noted, however the comment was intended to request that the actual elevation of the bottom of existing well 4MW-7 be calculated and inserted into the table to further characterize the relationship between well construction and ground water occurrence at this location. Please modify Table 3-2 to include the elevations of the top and bottom of the well screen/open hole interval for each well. Please include the calculated elevation of the bottom of well 4MW-7 in Table 3-2 that reflects the well depth measurement of 28 feet as indicated in Attachment 11.

Section 3.2 – Well Hydrographs

8. Please revise Figure 3-1 to reflect comment No. 6, above, as appropriate.

Section 3.3 – Summary/Interpretation

9. It is agreed that currently available data is not sufficient to characterize the direction of ground water flow in the vicinity of the Class III Landfill. Rather than requiring further characterization of ground water flow prior to issuance, it is the Department's intention to include a permit condition that requires the repair/replacement of existing well 4MW-7 and the collection of supplemental ground water elevation data at the Class III landfill on a monthly frequency for one year to characterize seasonal fluctuations. This permit condition shall also require the submittal of an evaluation of the direction/rate of ground water flow in the vicinity of the Class III landfill and the adequacy of the existing monitor wells. Please note that a permit modification shall be required if the monitoring program requires changes to reflect site conditions.

10. The Department does not object to the use of the hydraulic conductivity values obtained from slug tests at the adjacent Class I disposal areas in the calculation of ground water velocity at the Class III facility. However, this calculation must include the seasonal range of hydraulic gradients that is representative of the Class III facility. It is the Department's intention that the calculation of ground water velocity be included in the permit condition described in item No. 9, above.

Section 4.1 – Sampling Locations

11. The proposed work plan to repair or replace well 4MW-7 submitted as Attachment 11 (QORE, Inc., dated July 9, 2001) appears to be incomplete. Please revise this work plan to include the proposed elevation of the well screen and provide the requested justification for the screen interval to meet the requirements of Rule 62-701.510(3)(d), F.A.C. Please include the information provided in the response to item No. 7, above, regarding the open hole interval elevations and ground water elevations recorded at well 4MW-7 when justifying the proposed screen elevations and screen length. Please note that the Department intends to maintain the well identification number in the event that the well can be repaired, but a new identification number shall be required if a replacement well is needed.

12. The response that well 4MW-7 has been dry as a result of drawdown associated with operation of the production well that supplies water to the cooling towers appears to be incomplete. The response does not address the information provided in Attachment 11 (QORE, Inc., dated July 9, 2001) that indicated well 4MW-7 has collapsed from an original total depth of 50 feet below land surface to a measured depth of 28 feet below land surface. The response also appears to be inconsistent with the general ground water flow to the northwest that is reported for the nearby Class I disposal areas. It is the Department's intention that the evaluation of the adequacy of the designated background and downgradient monitor wells be included in the permit condition described in item No. 9, above.

Section 4.2 – Sampling Frequency

13. Please refer to item No. 10, above, regarding the calculation of ground water velocity. It is the Department's intention that the calculation of ground water velocity for the Class III landfill be included in the permit condition described in item No. 9, above.

**GAS MIGRATION AND ENGINEERING EVALUATION (Rule 62-701.400(10), F.A.C.)**

Section 1.0 -- Introduction

14. The revision to the Operations Plan to include quarterly gas monitoring at existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 (Attachment 2) is noted. **No additional information is requested.**

Please have the applicant contact me at (813) 744-6100, extension 336, to discuss these comments if there are any questions.

jrm

WASTE MANAGEMENT TECHNICAL SUPPORT
ROUTING FORM

PERMITTED FACILITIES

To: Patty

From: [illegible]

Date: 7/24/01

Subject: W PASCO CTII Ops Permit Renewal

Document Name: _____

Revision Number 1 County: Pasco

Facility Name: _____

Type of Facility: CTF

Permit Number: _____ Issue Date: _____

Copy of Permit attached: _____

Document submitted in compliance with permit condition. _____

Document subject to permit timeclock. Yes

Day 1: 7/18/01

Day 30: 8/17/01

PATS sheet attached: _____

Enforcement Case/CO/NOV/ associated with this site: _____

Files and related documents can be found Attached & in files

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by August 10.

Comments: _____

Module _____

Attachments

WASTE MANAGEMENT TECHNICAL SUPPORT
ROUTING FORM

PERMITTED FACILITIES

To: SUSAN

From: Kim

Date: 7/24/01

Subject: W PASCO CIII OPS PERMIT RENEWAL

Document Name: _____

Revision Number 1 County: PASCO

Facility Name: _____

Type of Facility: CIII

Permit Number: _____ Issue Date: _____

Copy of Permit attached: _____

Document submitted in compliance with permit condition. _____

Document subject to permit timeclock. YES

Day 1: 7/18/01

Day 30: 8/17/01

PATS sheet attached: _____

Enforcement Case/CO/NOV/ associated with this site: _____

Files and related documents can be found ATTACHED LINE DG

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by AUGUST 10.

Comments: _____

Module _____

Attachments

CDM Camp Dresser & McKee Inc.

consulting
engineering
construction
operations

Westshore Center
1715 North Westshore Boulevard, Suite 875
Tampa, Florida 33607
Tel: 813 281-2900 Fax: 813 288-8787

RECEIVED
JUL 18 2001
Department of Environmental Protection
SOUTHWEST DISTRICT
BY _____

July 12, 2001

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

Subject: West Pasco Class III Landfill, Permit Renewal Application
Responses to Request for Additional Information

Dear Mr. Ford:

We are in receipt of your Request for Additional Information dated March 21, 2001 as relates to the subject facility. The following responses are provided in support of all previously submitted information.

1. **Application Form Part B. 3., 23 and 24.** Revisions to application form are requested to verify the number of acres for disposal, to confirm that leachate is pumped directly to a WWTP (after collection in each lift station/ holding tank) , and to indicate the type of off-site treatment.

*Response:* The sections of the application specified above have been modified as follows: The total disposal area is 14 acres (3.5 used, 10.5 available); leachate is stored in tanks prior to being pumped directly to the Shady Hills Wastewater Treatment Facility, where the leachate undergoes oxidation and secondary treatment. The revisions to the application form are included as Attachment 1.

2. **Application Form Parts D. 7. , 8. , 9. , 11. and E. 3. , 4. , 5. , 6. , and 7.** Reference are requested for each item not resubmitted for confirmation of no substantial change. The Department will review the referenced site plans and supporting documents if the documents are available in Department files. Should a referenced document not be available, the Department's review and processing of this permit renewal may be delayed. The current operation permit #SO51-267334 specific condition #2 is a suggested source of references.

*Response:* Provided as Attachment 2 is a revised Landfill Operations Plan. This revised Plan addresses items D.7, D.8, E.5, and E.6. The information requested in items D.9, E.3, and E.4 can be found in the Permit/Construction Drawings and Record Drawings previously submitted to the Department on July 7, 1995. Item D.11 should be designated as N/A on the application form, as this disposal relates only to Class III material and does not affect the County's recycling goals (see Attachment 1). Mr. Bob Sigmund with Pasco

QORE
PROPERTY SCIENCES

D.E.P.
JUL 09 2001
Southwest District Tampa

July 9, 2001

Mr. John Morris, P.G.
**Florida Department of Environmental Protection**
3804 Coconut Palm Drive
Tampa, Florida 33619

**Re: Proposed Repair/Replacement of Monitor Well 4MW-7**
**West Pasco Class III Landfill**
**Pasco County, Florida**
**QORE Project No. 27-2440W**

Dear Mr. Morris,

On behalf of Pasco County, QORE, Inc. (QORE) is pleased to submit this letter with the proposed activities to repair or replace monitor well 4MW-7 located at the West Pasco Class III Landfill site near Spring Hill, Florida. This letter has been prepared in response to your recent telephone discussion with Mr. Jason Gorrie of Camp, Dresser & McKee (CDM). The following sections present a brief project background and proposed scope of work at the site.

## PROJECT BACKGROUND

Monitoring well 4MW-7 was installed to monitor ground water quality downgradient of the West Pasco Class III Landfill located off of Hayes Road in Spring Hill, Florida. For at least the past two years, this well has been reported to be dry during the periodic ground water monitoring events required by the landfill permit. In a recent report submitted to the Florida Department of Environmental Protection (FDEP), CDM stated that a new well must be installed at the location of 4MW-7 to "adequately monitor ground water effects resulting from operation of the landfill".

Construction information for well 4MW-7 indicates that this well was drilled to a total depth of 50 feet below ground surface (bgs). Four-inch diameter casing was installed to a depth of 20 feet bgs and the remainder of the well consists of a four-inch diameter open hole in what was described as "soft limestone with cavities". Discussions with the Pasco County Environmental Laboratory's field sampling person revealed that, at the time of the periodic sampling events, the measured well depth was only on the order of 28 feet bgs. At that depth, the well has a small amount of water but it is not enough to collect a ground water sample – hence, the well is reported as "dry".

The measured well depth of 28 feet indicates that the open-hole section has partially collapsed or "squeezed in". Similar collapse has reportedly occurred at other monitor wells constructed in a similar manner in the area of the Class III landfill. In response to an inquiry by QORE, CDM discussed the possibility of repairing the existing well with the FDEP in lieu of drilling a new well. It is our understanding that repair of the well is acceptable to the FDEP; however, the FDEP

1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646 fax (813) 623-3795

requested that a plan for the repair be provided to the FDEP for review and approval before the work is conducted. This letter fulfills that request. If the well can not be repaired, then a new well will be drilled.

## PROPOSED WORK PLAN

Well Repair

After approval by the FDEP, well 4MW-7 will be repaired by mobilizing a drill rig to the site. The open hole section will be re-drilled using air rotary drilling techniques. If air rotary techniques do not adequately work, then the open hole section will be drilled with mud-rotary drilling techniques. If mud-rotary methods are used, the drilling fluid will be flushed from the hole with clear water. Two-inch diameter, flush-joint, threaded Schedule 40 PVC screen and casing will be installed within the well. The screen section will extend from the bottom of the cleaned-out well bore to approximately 2 to 3 feet from the bottom of the existing well casing. The screen will have 0.010 inch slots. The annular space between the open hole and the screen will be filled with 20/30 gradation sand. This sand will extend approximately one foot above the top of the screen. A one-foot fine sand seal will be placed on top of the 20/30 sand and the remaining portion of the well bore will be filled with a neat cement grout.

After installation, the well will be developed by pumping and surging until the discharge is visually free of suspended sediments. The above-ground portion of the well will be finished with an above-ground locking steel cover.

A diagram of the proposed well repair is shown on Plate 1.

Well Replacement

In the event that the existing open hole section can not be drilled out or if it will not stay open due to in-filling or collapse of the borehole walls, then the existing well will be abandoned by filling with a neat cement grout. A new well will be drilled adjacent to the existing well. This well will be installed using hollow-stem auger drilling techniques. This well will be installed to a depth of approximately 45 feet. The well will be constructed of 2-inch diameter, flush-joint, threaded Schedule 40 PVC screen and casing. The screened section is anticipated to be 20 feet in length and will have 0.010-inch slots. The remainder of the well bore will be finished as described above for the monitor well repair. An above-ground, locking steel protective cover will be installed in a 2-foot square concrete pad.

After installation, the well will be developed by pumping and surging until the discharge is visually free of suspended sediments.

A diagram of the replacement well, if needed, is shown on Plate 1.

Reporting

At the completion of the work, a brief letter report will be prepared and submitted to the FDEP and Pasco County. This report will summarize the work performed and will present the well construction diagram for the repaired/replaced monitor well. If a replacement well is drilled, the well construction permit and the driller's well log will be submitted with the report.

If a replacement well is drilled or the casing elevation of the existing well is modified during the repair, the elevation of the top of the new well casing will be determined by a Professional Surveyor licensed in the State of Florida. If needed, this work will be performed by Pasco County personnel.

* * * *

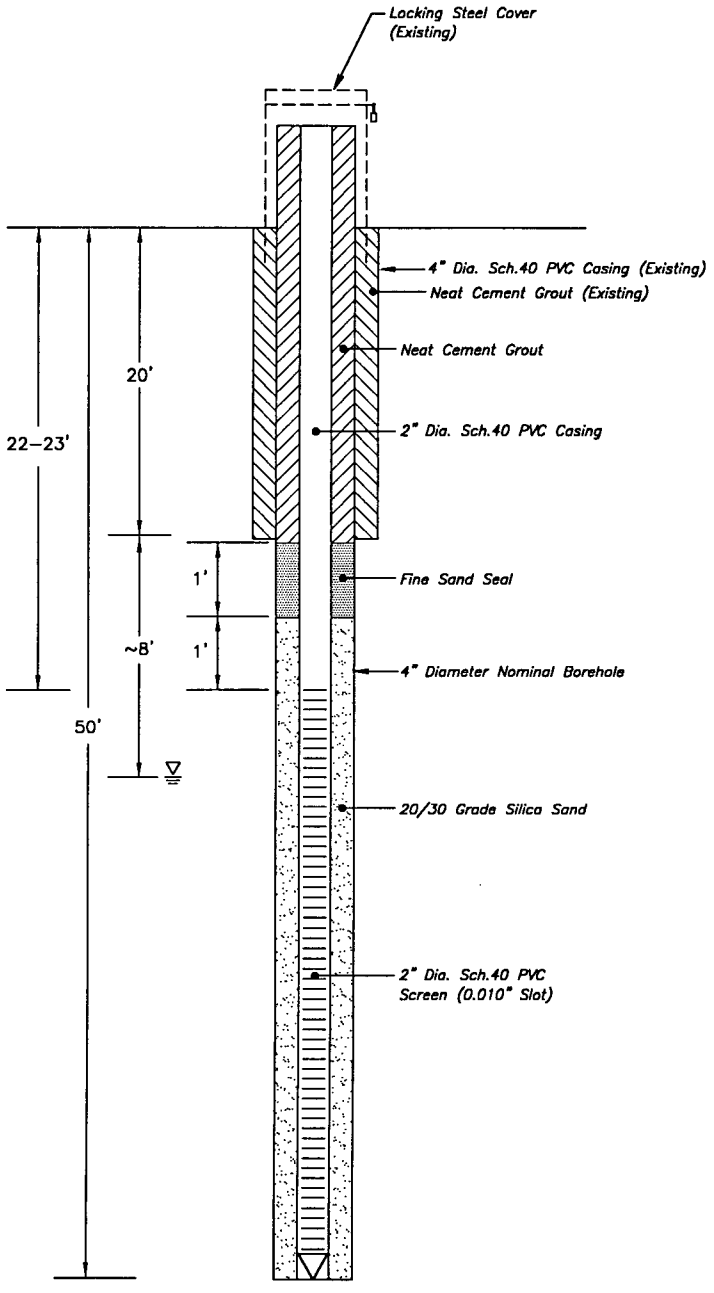
After your review, we will be happy to discuss any questions you may have. If, in the meantime, you have any questions, please do not hesitate to contact me at (813) 623-6646.

Yours very truly,
QORE, Inc.

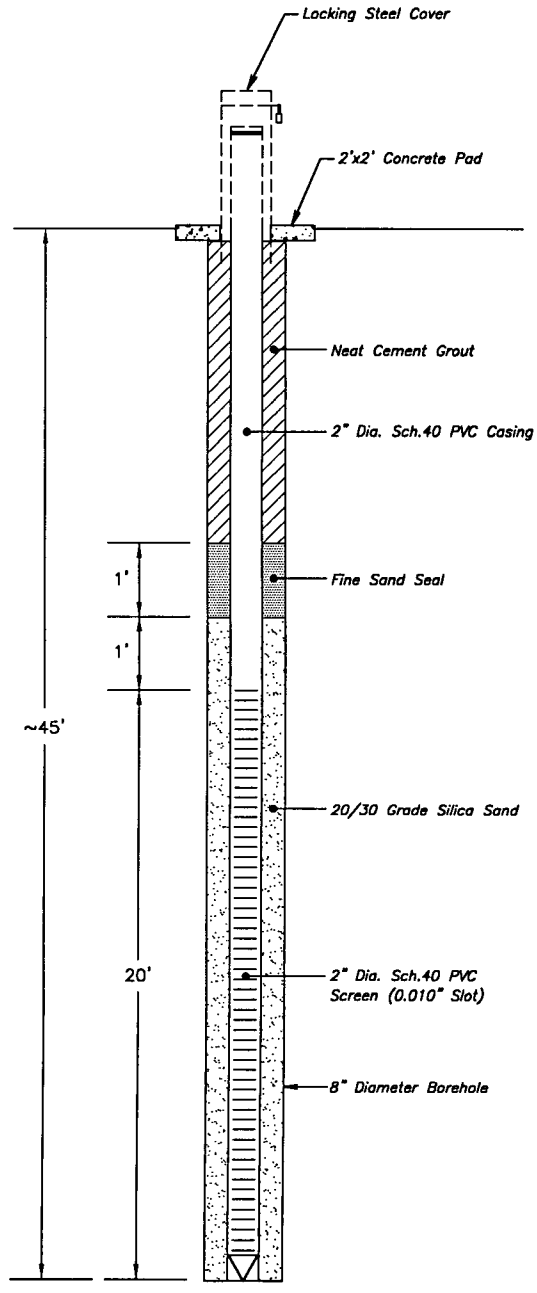
Lawrence J. Maron, P.E.
Senior Engineer

Attachment

cc: Mr. Douglas Bramlett – Pasco County
Mr. Jason Gorrie - CDM




REPAIR OF 4MW-7




4MW-7 REPLACEMENT WELL
(If Repairs are Ineffective)

| PASCO COUNTY UTILITIES SERVICES | DATE 6/29/01 | JOB NO. 27–2440W | PLATE NO. 1 |
|---|---|---|---|

QORE™ PROPERTY SCIENCES

1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646

PROPOSED WELL CONSTRUCTION
REPAIR/REPLACEMENT OF
WELL 4MW-7

WEST PASCO CLASS III LANDFILL
PASCO COUNTY, FLORIDA

WELLCON

SP 6/25
BOB RB

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 6/21/01

Time 11:52

Subject PUBLISH NOTICES

Permit No.

County PASCO

M Vince Manella

Telephone No. 727 856 0119

Representing PASCO

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

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

I CALLED V M TO ASK
IF HE WOULD PLEASE
PUBLISH NOTICES
FOR
W PASCO CIII & EAST PASCO
— ATTACHED TO THE LETTERS
(MESSAGE LEFT WITH
RECEPTIONIST)

(continue on another sheet, if necessary)

Signature [signature]

Title

PA-01
1/96
pap

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

June 1, 2001

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN - 5 2001
SOUTHWEST DISTRICT
TAMPA

Mr. Vincent Mannella, P.E.
Solid Waste Facility Manager
West Pasco County Class III
14230 Hays Road
Spring Hill, Florida 34610

Dear Mr. Mannella:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2002**. The receipt number for the registration fee you paid is 351197.

You must comply with the following requirements in order to maintain qualification for the registration program:

1. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years.

2. An Annual Report for a Yard Trash Processing Facility, DEP Form 62-709.320 (7)(b), shall be submitted by April 1 of each year.

3. A registration renewal, DEP Form 62-709.320(7)(a), shall be submitted by April 1 of each year to renew this registration.

4. The facility shall be operated in accordance with Rules 62-709.320(3) and (4), Florida Administrative Code. A summary of these requirements is enclosed.

If you need further information, please contact Francine Joyal at the above address, Mail Station 4565, telephone 850/921/9977, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosure

cc: Bob Butera, Southwest District

D.E.R.
JUN 05 2001
Southwest District Tampa

SS 5/21

# PASCO COUNTY, FLORIDA


DADE CITY (352)521-4274
LAND O' LAKES (813)996-7341
SPRING HILL (727)856-0119
FAX (727)861-3099

VINCENT MANNELLA, P.E.
RESOURCE RECOVERY FACILITY
14230 HAYS ROAD
SPRING HILL, FL 34610


May 15, 2001

D.E.P.
MAY 21 2001
Southwest District Tampa

Ms. Francine Joyal, Environmental Specialist
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Application for Registration of a Yard Trash Processing Facility - Pasco County

Dear Ms. Joyal:

Thank you for your letter of May 4, 2001, calling to our attention the 18 ton error in our estimates. Please adjust line 7b estimate processed yard trash on site at beginning of report year from 500 tons (estimate) to 518 tons estimate, which will put the application in proper balance.

I regret any inconvenience this may have caused you.

Sincerely,

Vincent Mannella, P.E.
Solid Waste Facility Manager

VM/kj

cc: Douglas S. Bramlett, Assistant County Administrator, Utilities
Mike Landi, Accountant II, Utilities
Robert Butera, P.E., Florida Department of Environmental Protection, Tampa

# Department of
# Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 4, 2001

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAY - 8 2001
SOUTHWEST DISTRICT
TAMPA

Mr. Vincent Mannella, P.E.
Solid Waste Facility Manager
West Pasco County Class III
14230 Hays Road
Spring Hill, Florida 34610

Dear Mr. Mannella:

I have received your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III. The application is incomplete for the following reason(s):

___ 1. You have not remitted the registration fee of $35.00.

___ 2. The Type of Facility was not marked.

___ 3. The Federal Employer Identification (FEID) number for the registrant was not provided.

___ 4. Contact person and telephone number was/were not provided.

___ 5. Location where records will be kept was not indicated/provided.

___ 6. Proof of owner permission was not provided or is inadequate.

___ 7. A completed annual report was not included. A copy of the form is enclosed.

_X_ 8. There appears to be an error on the annual report. Items 7 and 8 indicate that the site received (including what already was on the site at the start of calendar year 2000) 10,704 tons. Items 9 through 11 account for 10,686. This leaves 18 tons unaccounted for. A copy of the submitted annual report is enclosed.

Please send the necessary information within thirty (30) days to me at the above address, Mail Station 4565. If you have any questions, please contact me at this mailing address, or call 850/921-9977.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

Enclosure

cc: Bob Butera, Southwest District.

Environmental Protectic
Solid Waste Section, Mail Station 4565
2600 Blair Stone Road, Tallahassee, Florida 32399-2400

Form Title: Yard Trash Processing Facility
Effective Date: October 22, 2000
DEP Application No.: (Filled in by DEP)

## Application for Registration of a Yard Trash Processing Facility 3745 2062

1. Type of Application: New x Renewal (due April 1) ____
2. Type of Facility: Transfer Station ____ Both ____
   Recycling Facility x
3. Facility Name: West Pasco County, Class III Facility ID#: 4051M50035 051-01-YT (Assigned by Department)
4. Registrant (Company or Local Government) Name (if different): ____
5. Federal Employment Identification Number: 596-000-793
6. Mailing Address: 14230 Hays Road
   City: Spring Hill State: Florida Zip: 34610
7. Street Address (if different): ____
   City: ____ State: ____ Zip: ____
   County: ____
8. Contact Person: Vincent Mannella, P.E. Telephone: 727-856-0119
9. Records required by Rule 62-709.320, F.A.C., will be kept at the facility? Yes x No ____
   If no, please indicate where these records will be kept and made available upon Department request to review the records: ____
10. Does the registrant own the facility site? Yes x No ____
    If you answered no, please provide evidence that the facility owner or operator has permission from the landowner to operate a yard trash recycling facility at this site.
11. Has the facility begun operations? Yes x No ____
12. Include a check or money order for the $35.00 registration fee made payable to the Florida Department of Environmental Protection.

I affirm that I have read Rule 62-709.320, F.A.C., and shall comply with the requirements specified in that rule. I also affirm that the information provided in the application is true, accurate, and correct to the best of my knowledge. I have attached all documents and/or authorizations that are required.

Vincent Mannella, P.E.
Solid Waste Facility Manager
Print Name and Title of Authorized Agent

Signature of Authorized Agent

4/9/01
Date

Mail completed form and the $35.00 registration fee to the address specified above.

RECEIVED
APR 27 2001
Solid Waste Section

# Department of
# Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 4, 2001

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAY - 8 2001
SOUTHWEST DISTRICT
TAMPA

Ms. Susan J. Metcalfe, Director
Division of Solid Waste Management
Citrus County
P.O. Box 340
Lecanto, Florida 34460

Dear Ms. Metcalfe:

I have received your Application for Registration of a Yard Trash Processing Facility for Citrus County Central Landfill. The application is incomplete for the following reason(s):

___ 1. You have not remitted the registration fee of $35.00.

___ 2. The Type of Facility was not marked.

_X_ 3. The Federal Employer Identification (FEID) number for the registrant was not provided.

___ 4. Contact person and telephone number was/were not provided.

___ 5. Location where records will be kept was not indicated/provided.

___ 6. Proof of owner permission was not provided or is inadequate.

___ 7. A completed annual report was not included. A copy of the form is enclosed.

___ 8. There appears to be an error on the annual report. Items 7 and 8 indicate that the site received (including what already was on the site at the start of calendar year 2000) [A*mount and unit*]. Items 9 through 11 account for [A*mount and unit*].

Please send the necessary information within thirty (30) days to me at the above address, Mail Station 4565. If you have any questions, please contact me at this mailing address, or call 850/921-9977.

Sincerely,

Francine Joyal

Francine Joyal
Environmental Specialist

cc: Bob Butera, Southwest District

# PASCO COUNTY, FLORIDA

RECEIVED
APR 27 2001
Department of Environmental Protection
BY SOUTHWEST DISTRICT

DADE CITY (352)521-4274
LAND O' LAKES (813)996-7341
SPRING HILL (727)856-0119
FAX (727)861-3099

VINCENT MANNELLA, P.E.
RESOURCE RECOVERY FACILITY
14230 HAYS ROAD
SPRING HILL, FL 34610

April 24, 2001

Mr. Bob Butera, P.E.
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

Re: Leachate Force Main Break

Dear Mr. Butera:

Be advised that on April 23, 2001 an outside contractor installing a gas line broke the force main from the Class III Landfill. The break occurred at about 11:30 a.m. and was repaired by 1:30 p.m.

I am reporting to you for general information. The force main that was broken runs from the West Pasco Class III to the Shady Hills WWTP for treatment. I am not certain that any leachate from the Class III was in the force main. The current drought has all but eliminated the leachate production from the Class III landfill. However it became apparent that the liquid coming from the broken force main was sanitary. Apparently the broken force main was back flowing from the Shady Hills WWTP. (A separate report will be issued on the sanitary spill).

Hopefully this will not happen again.

Very truly yours,

Vincent Mannella, P.E.
Solid Waste Facility Manager

VM/kj

John J. Gallagher, County Administrator
Douglas S. Bramlett, Assistant County Administrator

KF

# PASCO COUNTY, FLORIDA

DADE CITY (352)521-4274
LAND O' LAKES (813)996-7341
SPRING HILL (727)856-0119
FAX (727)861-3099

VINCENT MANNELLA, P.E.
RESOURCE RECOVERY FACILITY
14230 HAYS ROAD
SPRING HILL, FL 34610

April 24, 2001

Mr. Bob Butera, P.E.
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

Re: Leachate Force Main Break

Dear Mr. Butera:

Be advised that on April 23, 2001 an outside contractor installing a gas line broke the force main from the Class III Landfill. The break occurred at about 11:30 a.m. and was repaired by 1:30 p.m.

I am reporting to you for general information. The force main that was broken runs from the West Pasco Class III to the Shady Hills WWTP for treatment. I am not certain that any leachate from the Class III was in the force main. The current drought has all but eliminated the leachate production from the Class III landfill. However it became apparent that the liquid coming from the broken force main was sanitary. Apparently the broken force main was back flowing from the Shady Hills WWTP. (A separate report will be issued on the sanitary spill).

Hopefully this will not happen again.

Very truly yours,

Vincent Mannella, P.E.
Solid Waste Facility Manager

VM/kj

| Post-it® Fax Note 7671 | Date 4/24 | # of pages ▶ 1 |
|---|---|---|
| To Bob Butera | From Vincent Mannella | |
| Co./Dept. FDEP | Co. Pasco County | |
| Phone # 813-744-6100 | Phone # 727-856-0119 | |
| Fax # 813-744-6125 | Fax # 727-861-3099 | |

John J. Gallagher, County Administrator
Douglas S. Bramlett, Assistant County Administrator

KB KF

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

CONVERSATION RECORD

Date 4/23/01
Time 328

Subject W. Pasco CIII Notification of breach
Permit No.
County
Telephone No.

M Vince Mannella
Representing

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

Other Individuals Involved in Conversation/Meeting

Summary of Conversation/Meeting

- possible leachate pipe breach by contractor from Class III forcemain
- he will send letter to Bob
- doesn't know if there was leachate in the line or not
- domestic waste effluent backed up into the line
  - they pumped it out w/ a vac truck
  - Pete Burkhandt was notified
- pipe was repaired

(continue on another sheet, if necessary)

Signature

Title PEI

PA-01
1/96
pap

# Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

March 21, 2001

Mr. Vince Mannella, P.E.
Pasco County
7530 Little Road
New Port Richey, FL 34654

**Re: West Pasco Class III Landfill**
**Pending Permit No.: 26255-001-SO, Pasco County**

Dear Mr. Mannella:

This is to acknowledge receipt of your permit renewal application received February 22, 2001 for operation of the West Pasco Class III Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your permit application is incomplete. This is the Department's 1st request for additional information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste applications [Chapters 62-701, Florida Administrative Code (F.A.C.)]. Please provide:

1. **Application Form Part B. 3., 23 and 24.** Revisions to application form are requested verify the number of acres for disposal, to confirm that leachate is pumped directly to a WWTP (after collection in each lift station/ holding tank), and to indicate the type of off-site treatment.

2. **Application Form Parts D. 7., 8., 9.,11. and E. 3., 4., 5., 6., and 7.** References are requested for each item not resubmitted for confirmation of no substantial change. The Department will review the referenced site plans and supporting documents if the documents are available in Department files. Should a referenced document not be available, the Department's review and processing of this permit renewal may be delayed. The current operation permit #SO51-267334 specific condition #2. is a suggested source of references.

3. **62-701.320(8)(a).** Proof of publication of notice of application, see attached notice.

4. **Application Form Part K.** The following comments are based on a review of the Operations Plan received May 16, 1996. Revisions are requested for clarification to demonstrate compliance with the following subsections of 62-701.500 entitled Landfill Operation Requirements:

   (1) - One trained operator, and one trained spotter at the working face.

   (2)(c) - Inspection Procedures, number and location of spotters, and procedures for removal of prohibited wastes.

   (6)(a)2. - Procedures and information recorded as part of the load checking program.

   (7)(c) - Working face slope no greater than 3 to 1.

   (7)(i) - Litter collection procedures.

   (9) - A gas monitoring program sufficient to detect the gas migration north and west of the active disposal unit, as required by 62-701.400(10).

5. **62-701.510.** Comprehensive updated groundwater monitoring plan and a response to each of Mr. John Morris's comments and concerns expressed in his March 20, 2001 memorandum, attached. You may call Mr. Morris at extension 336 to discuss your response to this item.

6. **62-701.630.** Proof of financial assurance. A copy of Pasco County's letter of confirmation from the Department's Tallahassee Solid Waste Section will be sufficient.

7. **62-709.320.** A description of the yard trash processing facility, including a drawing to show the perimeter access road and lanes, to demonstrate compliance with these requirements is requested. Pasco County may amend its operations plan or apply for a separate registration.

**Please provide all responses that relate to engineering required for operation, signed and sealed by a professional engineer.**

"NOTICE! Pursuant to the provisions of Section 120.60, F.S., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Please submit your response to this letter as one complete package. On all future correspondence, please include Robert Butera on distribution. If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,

Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

KBF/ab
Attachments

cc: Douglas Bramlett, Pasco County
Jason Gorrie, P.E., CDM
Robert Butera, P.E., FDEP Tampa
John Morris, P.G., FDEP Tampa

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Floriaa Department of

**Memorandum** **Environmental Protection**

| | |
|---|---|
| **TO:** | Kim Ford, P.E. |
| **FROM:** | John R. Morris, P.G. JRM |
| **DATE:** | March 20, 2001 |
| **SUBJECT:** | West Pasco Class III Landfill<br>Permit Renewal Application<br>Hydrogeologic and Monitoring Review Comments |
| **CC:** | Robert Butera, P.E. |

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I have reviewed the following items associated with the permit renewal application for the referenced facility:

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My review focused on the hydrogeologic and monitoring aspects of the facility. Additional information is needed to evaluate the adequacy of the monitoring plan and its proposed modification. Please have the applicant address the following comments. The comment numbers are referenced to the CDM submittals.

**GROUND WATER MONITORING PLAN EVALUATION (Rule 62-701.510(9)(b), F.A.C.)**

Section 1.2 - Ground Water Monitoring Plan

1. Please clarify the identification numbers for two of the existing wells. The CDM submittal references wells 2MW-3 and 4MW-3A, the Pasco County ground water monitoring data reports for the semi-annual sampling events reference wells 2MW-3A and 4MW-3A, and the ground water contour maps prepared by Law Engineering reference wells 2MW-3 and 4MW-3. Please provide a to-scale site map that provides locations for all the existing monitor wells, the proposed replacement for monitor well 4MW-7, and the supply well for the resource recovery facility cooling tower.

Section 2.1 - Data Tabulation

2. The analytical results provided in Tables 2-1 through 2-4 appear to be inconsistent with the ground water monitoring data reports provided by Pasco County. Please review the following items and provide revisions, as appropriate:
   a. Tables 2-2, 2-3 and 2-4 do not include the results for vinyl acetate, vinyl chloride, and xylenes.
   b. Table 2-1, Quarter 1, 1999 sampling event result for mercury of 0.004 mg/L was indicated to be 0.0004 mg/L by Pasco County.
   c. Table 2-1, Quarter 3, 1999 sampling event result for turbidity of 0 NTUl was indicated to be 1.7 NTU by Pasco County.
   d. Table 2-1, Quarter 3, 1999 sampling event result for methyl chloride of 4.18 µg/L was indicated to be methylene chloride by Pasco County.
   e. Tables 2-1, 2-3, and 2-4, Quarter 3, 2000 sampling event results for turbidity of 0.01 NTU were omitted from the Pasco County report (not analyzed).

3. Review of the ground water monitoring reports submitted by Pasco County indicate that the method detection limits reported for 1,2-dibromoethane (EDB) and 1,2-dibromo-3-chlorpropene (DBCP) exceeded their respective ground water standards for the August 1999, February 2000, and July 2000 sampling events. Please coordinate with the analytical laboratory to use an appropriate methodology to allow comparison of the results for these parameters with ground water standards.

4. It is indicated that Table 2-10 provides a summary of leachate analyses from Tanks 1 and 2 as required by the permit, however the results from an undated sampling event are included. Please revise Table 2-10 to provide the results of the leachate sampling events conducted since 1995. Although Specific Condition No. 31 of the current permit requires annual leachate sampling for a reduced list of parameters, Pasco County has been conducting semi-annual leachate sampling events that are consistent with the requirements of Rule 62-701.510(6)(b), F.A.C. Please note that it is the Department's intention to revise the leachate sampling requirements in the new permit to be consistent with this rule.

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Section 3.1 – Data Tabulation

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7. Please revise Table 3-1 to indicate ground water occurred below the elevation of the bottom of well 4MW-7 for each sampling event where this well was dry. Please also provide a table that summarizes construction details of the existing monitor wells including elevations of: land surface; ground surface; top and bottom of well screen; and, maximum and minimum ground water levels.

Section 3.2 – Well Hydrographs

8. Please revise Figure 3-1 to reflect comment No. 6, above, if appropriate.

Section 3.3 – Summary/Interpretation

9. It is indicated that the contour maps provided to the Department show ground water flow to the south/southwest. Ground water flow directions shown on the contour maps enclosed with the ground water monitoring data reports provided by Pasco County for the four most recent semi-annual sampling events are summarized as follows: Quarter 1, 1999 to the northwest and south; Quarter 3, 1999 to the northwest and south; Quarter 1, 2000 – to the east; and, Quarter 3, 2000 – to the southeast. Please provide a more complete discussion of the direction of ground water flow in the vicinity of the West Pasco Class III landfill as required by Rule 62-701.510(9)(b)7, F.A.C.

10. Please provide an evaluation of the ground water flow rates observed at the facility during the sampling events conducted from 1995 through 2000 as required by Rule 62-701.510(9)(b)7, F.A.C. Please develop a seasonal range for ground water flow rates using site-specific values for horizontal hydraulic conductivity, maximum and minimum hydraulic gradients measured during the sampling events, and a range of effective porosity values from reference texts that represent the formation of the uppermost water bearing unit.

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11. The Department agrees with the recommendation to install a deeper well to replace 4MW-7. A site map drawn to scale that provides the location of this proposed replacement well was requested in comment No. 1, above. Please provide the construction details including justification of the proposed elevation of the well screen interval to meet the requirements of Rule 62-701.510(3)(d), F.A.C.

12. Please provide an evaluation of the adequacy of the locations of the designated background and downgradient monitor wells as required by Rule 62-701.510(9)(b)8, F.A.C., utilizing the direction of ground water flow as requested in comment No. 9, above.

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13. The technical basis for the statement that the semi-annual monitoring frequency should remain in effect was not provided. Please note that the range of site-specific ground water velocity values that reflect seasonal fluctuations (requested in comment No. 10, above) are required to determine the appropriateness of the sampling frequency. Please revise Section 4.2 to meet the requirements of Rule 62-701.510(9)(b)8, F.A.C.

**GAS MIGRATION AND ENGINEERING EVALUATION (Rule 62-701.400(10), F.A.C.)**

Section 1.0 -- Introduction

14. It does not appear that the current landfill gas monitoring conducted at the scalehouse and at the landfill operator's office meets the requirements of Rule 62-701.400(10)(c), F.A.C. Existing surficial aquifer wells 2MW-7, 2MW-8, and 2MW-10 may be suitable for conducting subsurface landfill gas monitoring adjacent to Cells 1 and 2. Please evaluate the feasibility of using these shallow wells as landfill gas monitoring locations.

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jrm

Florida Department of

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WASTE MGT TAMPA SWD Fax:8137446125

** Transmit Conf.Report **

P.1 Feb 27 2001 13:12

| Telephone Number | Mode | Start | Time | Pages | Result | Note |
|---|---|---|---|---|---|---|
| 817278560007 | NORMAL | 27,13:11 | 0'47" | 2 | * O K | |

| FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION | 3804 Coconut Palm Drive Tampa, FL 33619-8318 |
|---|---|

# FAX

Date: 2/27/01

Number of pages including cover sheet: 2

To: Vince Mannella

Pasco County

Phone: 727 8560119

Fax phone: 727 8560007

CC:

From: Tim Ford

Phone: (813) 744-6100 x382

Fax phone: (813) 744-6125

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

For CIII LF —

Please publish ASAP.

~~Tim~~

Tim

WASTE MGT TAMPA SWD ax:8137446125

** Transmit Conf.Report **

P.1 Feb 27 2001 13:02

| Telephone Number | Mode | Start | Time | Pages | Result | Note |
|---|---|---|---|---|---|---|
| 817278560007 | NORMAL | 27,13:01 | 0'45" | 2 | * O K | |

| FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION | 3804 Coconut Palm Drive Tampa, FL 33619-8318 |
|---|---|

# FAX

Date: 2/27/01

Number of pages including cover sheet: 2

To: Joce Mannella

Pasco County

Phone: 727 856 0119

Fax phone: 727 856 0007

CC:

From: tim ford

Phone: (813) 744-6100 x382

Fax phone: (813) 744-6125

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

for cttl LF —

please publish ASAP.

thx

tim

| FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION | 3804 Coconut Palm Drive<br>Tampa, FL 33619-8318 |
|---|---|

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WASTE MANAGEMENT TECHNICAL SUPPORT
ROUTING FORM

PERMITTED FACILITIES

To: John Morris

From: Kim Ford

Date: 2/6/01

Subject: W Pasco CDL LF Renewal

Document Name: _____

Revision Number D County: Pasco

Facility Name: _____

Type of Facility: CDL LF

Permit Number: _____ Issue Date: _____

Copy of Permit attached: _____

Document submitted in compliance with permit condition. _____

Document subject to permit timeclock. 45

Day 1: 2/22/01

Day 30: 3/22/01

PATS sheet attached: _____

Enforcement Case/CO/NOV/ associated with this site: _____

Files and related documents can be found _____

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by March 15.

Comments: _____

Module _____

Attachments

# Groundwater Monitoring Plan Evaluation
# For
# West Pasco Class III Landfill
# Pasco County, Florida

February 2001

CERTIFICATION

I hereby certify that I have examined the site, and being familiar with the provisions of 62-701, F.A.C., attest that this evaluation has been prepared in accordance with good engineering practices.

Engineer: Jason M. Gorrie, P.E

Signature:

Registration Number: 55341

State: Florida

Date: 2/8/01

S:\PASCO\CoverGMPEvaluation.doc

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1.2 Groundwater Monitoring Plan ..... 1-1

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2.2 Graphical Presentations ..... 2-22
2.3 Summary/Interpretation ..... 2-22

3.0 Groundwater Level Data

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3.2 Well Hydrographs ..... 3-1
3.3 Summary/Interpretation ..... 3-3

4.0 Summary

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4.3 Potable Well Survey ..... 4-1



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

FEB 2 2 2001

SOUTHWEST DISTRICT
TAMPA

SOUTHWEST DISTRICT
FDEP

# Solid Waste Program
# Permitting Application

New Site

| | |
|---|---|
| Site Name: | |
| Site Address: | |
| County: | |
| Type/Subcode: | |

Existing Site

| | |
|---|---|
| Site ID: | 26255 — 001 |
| Project Name: | WEST PASCO CLASS III LANDFILL |
| Type/Subcode: | SO/T3 |
| Fee Submitted: | 4000 (✓) correct ( ) incorrect |
| Fee Refund $ | Fee Request $ |

Related Party

| | |
|---|---|
| Role: | APPLICANT |
| Name: | VINCE MANNELLA |
| Company: | PASCO COUNTY |
| Street: | 7530 LITTLE ROAD |
| City: | NEW PORT RICHEY |
| Zip Code: | 34654 |
| Phone: | (727) 856 0119 |

Distribution Date: _____

Fee Checked By: E FORD Date: 2/26/01

**BOARD OF COUNTY COMMISSIONERS**
PASCO COUNTY DADE CITY, FLORIDA

| VENDOR NUMBER | DATE | CHECK NO. |
|---|---|---|
| | 02/20/01 | 00229133 |

| DATE | INVOICE OR CREDIT MEMO NUMBER | VOUCHER NUMBER | DESCRIPTION | GROSS | DISCOUNTS | NET |
|---|---|---|---|---|---|---|
| 020601 | 119380 | 0678789 | fee | 400000 | 000 | 400000 |
| | | | TOTAL ▶ | 400000 | 000 | 400000 |

THE ATTACHED CHECK IS IN PAYMENT FOR ITEMS DESCRIBED ABOVE

WARRANT PAYABLE AT
**First Union National Bank of Florida**
**Dade City, Florida**

VOID IF NOT CASHED
WITHIN 90 DAYS

**BOARD OF COUNTY COMMISSIONERS**
PASCO COUNTY DADE CITY, FLORIDA
PAYING ACCOUNT

63-751
631

CHECK NO. 00229133
229133

FOUR THOUSAND AND 00/100 . . . . . .

DATE 02/20/01 CHECK AMOUNT *****4,000.00

PAY TO THE ORDER OF

FL DEPT OF ENVIRONMENTAL PROTECTION

3804 COCONUT PALM DR
SOUTHWEST DISTRICT
TAMPA, FL 33619-8318

**JED PITTMAN**
CLERK OF THE CIRCUIT COURT EX-OFFICIO CLERK
TO THE BOARD OF COUNTY COMMISSIONERS

CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS

⑈229133⑈ ⑆063107513⑆ 2180019001044⑈

ANCO FORMS AND SYSTEMS, INC. (941) 967-2288 800-868-0175

10
3 60
S 00

**IMPORTANT**

Charge and mail all invoices
in Duplicate to
BOARD OF COUNTY COMMISSIONERS
ATTN: CLERK OF THE CIRCUIT COURT
38053 LIVE OAK AVE.
DADE CITY, FLORIDA 33523-3894

**PURCHASING DEPARTMENT**
8919 Government Drive
New Port Richey, FL 34654-5500
Phone (727) 847-8194
FAX (727) 847-8065

See Important Conditions
on back

# PASCO COUNTY PURCHASE ORDER

NO. 000119380

| REQUISITION NO | TERMS | F.O.B. | REQUIRED DELIVERY DATE | DATE | | DATE |
|---|---|---|---|---|---|---|
| 0047147 | prepay | - - | 00/00/00 | 02/06/01 | NEUSPE | 02/12/01 |

VENDOR:
596001874TPA
FL DEPT OF ENVIRONMENTAL PROTECTION
3804 COCONUT PALM DR.
TAMPA, FL 33619

SUMMARY

SHIP TO:
PASCO COUNTY UTILITIES
FISCAL SVCS/PUBLIC WORKS BLDG
7530 LITTLE RD., ROOM 204
NEW PORT RICHEY FL 34654

SALES TAX EXEMPTION NO.
61-04-026782-53C

PURCHASING DIRECTOR (SIGNATURE) — DATE 2/12/01

| ITEM NO. | QTY/UNIT | DESCRIPTION | UNIT PRICE | TOTAL |
|---|---|---|---|---|
| 1 | 1.00 | FEE<br>OPERATING PERMIT RENEWAL for<br>WEST PASCO CLASS III LANDFILL<br>DEP I.D. #4051M30035<br>prepay<br>backup WILL BE DELIVERED DIRECTLY<br>TO FINANCE<br><br>B45075220034930 | 4000.000 | 4000.00 |
| | | | | 4000.00 |

D.E.P.
FEB 22 2001
Southwest District Tampa

VENDOR

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
APPLICATION FOR PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

**A. GENERAL INFORMATION**

1. Type of facility:

Disposal [✔]

| | | | |
|---|---|---|---|
| Class I Landfill | [ ] | Ash Monofill | [ ] |
| Class II Landfill | [ ] | Asbestos Monofill | [ ] |
| Class III Landfill | [✔] | Industrial Solid Waste | [ ] |
| Other | [ ] | _____ | |

Volume Reduction [ ]

| | | | |
|---|---|---|---|
| Incinerator | [ ] | Pulverizer / Shredder | [ ] |
| Composting | [ ] | Compactor / Baling Plant | [ ] |
| Materials Recovery | [ ] | Energy Recovery | [ ] |
| Other | [ ] | _____ | |

2. Type of application:

| | | | |
|---|---|---|---|
| Construction | [ ] | Construction/Operation | [ ] |
| Operation | [✔] | Closure | [ ] |

3. Classification of application:

| | | | |
|---|---|---|---|
| New | [ ] | Substantial Modification | [ ] |
| Renewal | [✔] | Minor Modification | [ ] |

4. Facility name: West Pasco Class III Landfill

5. DEP ID number: 4051M30035 County: Pasco

6. Facility location (main entrance): 14606 Hays Road, 3 miles north of State Road 52

7. Location coordinates:

Section: 25/26 Township: 24S Range: 17E

UTMs: Zone _____ _____ km E _____ km N

Latitude: 28 ° 22 ' 05 " Longitude: 82 ° 33 ' 30 "

8. Applicant name (operating authority): Pasco County BOCC

Mailing address: 7530 Little Road (Street or P.O. Box) New Port Richey (City) FL (State) 34654 (Zip)

Contact person: Mr. Vince Mannella, P.E. Telephone: (727) 856-0119

Title: Solid Waste Facility Manager

9. Authorized agent/Consultant: Camp Dresser & McKee Inc.

Mailing address: 1715 N. Westshore Blvd, Suite 875 (Street or P.O. Box) Tampa (City) FL (State) 33607 (Zip)

Contact person: Jason Gorrie, P.E. Telephone: (813) 281-2900

Title: _____

10. Landowner(if different than applicant): same

Mailing address: _____ (Street or P.O. Box) (City) (State) (Zip)

Contact person: _____ Telephone: (___) _____

11. Cities, towns and areas to be served: Pasco County

_____

12. Population to be served:

Current: 327,000 Five-Year Projection: 375,000

13. Volume of solid waste to be received: 10 tons/day yds$^3$/day tons/day gallons/day

14. Date site will be ready to be inspected for completion: N/A

15. Estimated life of facility: 60 years

16. Estimated costs:

Total Construction: $ N/A Closing Costs: $ N/A

17. Anticipated construction starting and completion dates:

From: N/A To: N/A

**CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER**

A. Applicant

The undersigned applicant or authorized representative of Pasco County is aware that statements made in this form and attached information are an application for a renewed Operation Permit from the Florida Department of Environmental Regulation and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

Vince Mannella, P.E., Facility Manager
Name and Title

Date: 2-9-01

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

B. Professional Engineer Registered in Florida or Public Officer as required in Section 403.707 and 403.707(5), Florida Statutes.

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Signature

Jason M. Gorrie
Name and Title (please type)

55341
Florida Registration Number
(please affix seal)

Date: 1/24/01

1715 N. Westshore Blvd, Suite 875
Mailing Address

Tampa, FL 33607
City, State, Zip Code

(813) 281-2900
Telephone Number

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

FEB 2 2 2001

SOUTHWEST DISTRICT
TAMPA

DEP FORM 62-701.900(1)
Effective 05-19-94

**PORTANT**

Charge and mail all invoices
in Duplicate to
BOARD OF COUNTY COMMISSIONERS
ATTN: CLERK OF THE CIRCUIT COURT
38053 LIVE OAK AVE.
DADE CITY, FLORIDA 33523-3894

**PURCHASING DEPARTMENT**
8919 Government Drive
New Port Richey, FL 34654-5500
Phone (727) 847-8194
FAX (727) 847-8065

See Important Conditions
on back

# PASCO COUNTY PURCHASE ORDER

NO. 000119380

| REQUISITION NO | TERMS | F.O.B. | REQUIRED DELIVERY DATE | DATE | | DATE |
|---|---|---|---|---|---|---|
| 0047147 | prepay | - - | 00/00/00 | 02/06/01 | NEUSPE | 02/12/01 |

**VENDOR:**
596001874TPA
FL DEPT OF ENVIRONMENTAL PROTECTION
3804 COCONUT PALM DR.
TAMPA, FL 33619

SUMMARY

**SHIP TO:**
PASCO COUNTY UTILITIES
FISCAL SVCS/PUBLIC WORKS BLDG
7530 LITTLE RD., ROOM 204
NEW PORT RICHEY FL 34654

SALES TAX EXEMPTION NO.
61-04-026782-53C

PURCHASING DIRECTOR (SIGNATURE) — DATE 2/12/01

| ITEM NO. | QTY/UNIT | DESCRIPTION | UNIT PRICE | TOTAL |
|---|---|---|---|---|
| 1 | 1.00 | FEE<br>OPERATING PERMIT RENEWAL for<br>WEST PASCO CLASS III LANDFILL<br>DEP I.D. #4051M30035<br>prepay<br>backup WILL BE DELIVERED DIRECTLY<br>TO FINANCE<br><br>B45075220034930 | 4000.000 | 4000.00 |
| | | | | 4000.00 |

D.E.P.
FEB 22 2001
Southwest District Tampa

VENDOR

BEST AVAILABLE COPY

## IMPORTANT CONDITIONS

1. Collect Shipments will not be accepted. Shipments F.O.B. shipping point must be prepaid and included on invoice. Original shipping bill must be included with invoice.

2. If prices are higher than specified, do not ship without Purchasing Director's approval.

3. Furnish invoice in duplicate and mail to Board of County Commissioners, ATTN: Clerk of the Circuit Court, 38053 Live Oak Ave., Dade City, Florida, 33523-3894.

4. Send separate invoice for each shipment. Purchase order number must appear on each invoice.

5. Delivery will be accepted at Vendor's risk. Goods are subject to inspection and return if found unsatisfactory.

6. If these conditions are not acceptable, please advise us on receipt of the order, and before you make any delivery.

7. If this order does not meet minimum billing, or if there is a set-up charge, advise the Purchasing Director before shipping.

8. All credit adjustments must be made by check or credit memo directly to the Pasco County Board of County Commissioners and mailed to item 3, above.

9. The County is exempt from the payment of all Federal excise taxes and sales taxes of the State of Florida, and generally all other State governments. Seller shall furnish proper exemption certificate.

10. State of Florida Sales Tax exemption No. 61-04-023782-53C.

11. Correspondence regarding this order must be addressed to Purchasing Director. Purchase order number must appear on all correspondence.

12. Vendor, by accepting this order, assumes complete responsibility for any alleged patent infringements, and will save the County harmless from all suits and payments.

13. The County requires that a vendor have a purchase order or a purchase order number issued by a representative of the Purchasing Department before shipping any merchandise. The County assumes no responsibility for purchases which are not covered by a purchase order number, or approved by the Purchasing Director or Buyer.

14. Conflict of Interest: The award hereunder is subject to provisions of Chapter 112, F.S. All bidders must disclose--with their bid--the name of any officer, director, or agent who is also an employee of Pasco County, Florida. Further, all bidders must disclose the name of any Pasco County employee who owns, directly or indirectly, an interest of five (5) percent or more in the bidder's firm or any of its branches.

PAYMENT PROCEDURES

The Board has adopted Resolution No. 95-70, incorporating its Invoice Payment Procedures Policy (Policy) in order to help ensure that vendors providing goods and/or services to the Board receive payment in a timely manner and in accordance with Chapter 218, Part VII, Florida Statutes, (the Florida Prompt Payment Act). A copy of Resolution No. 95-70 (which includes the policy) is available for viewing during normal business hours at the Office of the Pasco County Clerk of the Circuit Court; 38053 Live Oak Avenue; Department of Secretaries Services, Room 205; Dade City, Florida 33523. Copies of the Resolution may be obtained at a cost of $1.20 (one dollar and twenty cents). Please make your check payable to Jed Pittman, Clerk of the Circuit Court and forward payment to the Department of Secretarial Services at the address noted above. For further information please call (352) 521-4347.

Several payment options are available to successful vendor, upon receipt of a correct invoice:

1. Check may be mailed to the remit address on the invoice. The check is sent to the Post Office the day after Board approval.
2. Check may be picked up in Dade City. The vendor must pick up the check the day after Board approval. The successful bidder or contractor must call (352) 521-4599 for detailed instructions.
3. Payment may be wire-transferred to the vendor's bank account. The vendor must call (352) 521-4599 for detailed instructions.

# **CDM** Transmittal

**CDM** Camp Dresser & McKee Inc.

1715 North Westshore Blvd., Suite 875
Tampa, Florida 33607
(813) 281-2900
(813) 288-8787 (fax)

| | | | |
|---|---|---|---|
| **To:** | Vince Mannella | **From:** | Jason Gorrie |
| **Organization/ Address:** | Pasco County Solid Waste<br>14230 Hays Rd.<br>Spring Hill, FL 34617 | **Date:** | February 8, 2001 |
| **Re:** | Class III Permit Renewal | | |
| **Job #:** | 6104-31195 | | |

**Via:** *Mail:* *Overnight:* *Courier:* XXX

**Enclosed please find:**

| | | | |
|---|---|---|---|
| **For your information** | | **Approved** | |
| **For your review** | | **Approved as noted** | |
| **For your signature** | XXX | **Returned to you for correction** | |

● **Message:**

Please sign the attached application forms where indicated and submit 4 copies (including 4 copies of the Groundwater Evaluation and Engineering Evaluation), along with a check in the amount of **$4000** made payable to **Florida Department of Environmental Protection.**

Signed

FEB 12 2 59 PM '01

JED WETTMAN, CLERK OF
CIRCUIT AND COUNTY
COURTS
FILED FOR RECORD
PASCO COUNTY, FLORIDA

Florida Department of Environmental Protection
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(1)
Form Title Solid Waste Management Facility Permit
Effective Date May 19, 1994

DEP Application No. _____
(Filled by DEP)

D.E.P.
FEB 22 2001
Southwest District Tampa

# STATE OF FLORIDA
# DEPARTMENT OF ENVIRONMENTAL PROTECTION

## SOLID WASTE MANAGEMENT FACILITY PERMIT

## APPLICATION INSTRUCTIONS AND FORMS

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

## INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT PERMIT

### I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes,(FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of six copies of the application shall be submitted to the Department District Office having jurisdiction over the facility. The appropriate fee in accordance with Chapter 62-4, FAC, and Rule 62-701.320(5)(c), FAC, shall be submitted with the application by check made payable to the Department of Environmental Regulation (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

### II. Application Parts Required for Construction and Operation Permits

A. Landfills and Ash Monofills - Submit parts A,B, D through R, and T
B. Asbestos Monofills - Submit parts A,B,D,E,F,I,K, M through Q, and T
C. Industrial Solid Waste Facilities - Submit parts A,B, D through Q, and T
D. Volume Reduction Facilities - Submit parts A,C,D,S, and T
E. Materials Recovery Facilities - Submit parts A,C,D,S, and T

**NOTE:** Portions of some parts may not be applicable.

**NOTE:** For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A,B,C,D, and E type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

### III. Application Parts Required for Closure Permits

A. Landfills and Ash Monofills - Submit parts A,B, N through R, and T
B. Asbestos Monofills - Submit parts A,B, M through Q, and T
C. Industrial Solid Waste Facilities - Submit parts A,B, N through Q, and T
D. Volume Reduction Facilities - Submit parts A,C,S, and T
E. Materials Recovery Facilities - Submit parts A,C,S, and T

**NOTE:** Portions of some parts may not be applicable.

### IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

## V. Application Codes

| | | |
|---|---|---|
| S | - | Submitted |
| LOCATION | - | Physical location of information in application |
| N/A | - | Not Applicable |
| N/C | - | No Substantial Change |

## VI. LISTING OF APPLICATION PARTS

PART A- GENERAL INFORMATION

PART B- DISPOSAL FACILITY GENERAL INFORMATION

PART C- MATERIALS RECOVERY / VOLUME REDUCTION FACILITY GENERAL INFORMATION

PART D- SOLID WASTE MANAGEMENT FACILITY PERMIT GENERAL REQUIREMENTS

PART E- LANDFILL PERMIT GENERAL REQUIREMENTS

PART F- GENERAL CRITERIA FOR LANDFILLS

PART G- LANDFILL CONSTRUCTION REQUIREMENTS

PART H- HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

PART I- GEOTECHNICAL INVESTIGATION REQUIREMENTS

PART J- VERTICAL EXPANSION OF LANDFILLS

PART K- LANDFILL OPERATION REQUIREMENTS

PART L- WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS

PART M- SPECIAL WASTE HANDLING REQUIREMENTS

PART N- LANDFILL CLOSURE REQUIREMENTS

PART O- CLOSURE PROCEDURES

PART P- LONG TERM CARE REQUIREMENTS

PART Q- FINANCIAL RESPONSIBILITY REQUIREMENTS

PART R- CLOSURE OF EXISTING LANDFILL REQUIREMENTS

PART S- MATERIALS RECOVERY FACILITY REQUIREMENTS

PART T- CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

**STATE OF FLORIDA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**APPLICATION FOR PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE**
**A SOLID WASTE MANAGEMENT FACILITY**

Please Type or Print

**A. GENERAL INFORMATION**

1. Type of facility:

Disposal [✔]

| | | | |
|---|---|---|---|
| Class I Landfill | [ ] | Ash Monofill | [ ] |
| Class II Landfill | [ ] | Asbestos Monofill | [ ] |
| Class III Landfill | [✔] | Industrial Solid Waste | [ ] |
| Other | [ ] | _____ | |

Volume Reduction [ ]

| | | | |
|---|---|---|---|
| Incinerator | [ ] | Pulverizer / Shredder | [ ] |
| Composting | [ ] | Compactor / Baling Plant | [ ] |
| Materials Recovery | [ ] | Energy Recovery | [ ] |
| Other | [ ] | _____ | |

2. Type of application:

| | | | |
|---|---|---|---|
| Construction | [ ] | Construction/Operation | [ ] |
| Operation | [✔] | Closure | [ ] |

3. Classification of application:

| | | | |
|---|---|---|---|
| New | [ ] | Substantial Modification | [ ] |
| Renewal | [✔] | Minor Modification | [ ] |

4. Facility name: West Pasco Class III Landfill

5. DEP ID number: 4051M30035 County: Pasco

6. Facility location (main entrance): 14606 Hays Road, 3 miles north of State Road 52

7. Location coordinates:

Section: 25/26 Township: 24S Range: 17E

UTMs: Zone _____ _____ km E _____ km N

Latitude: 28 ° 22 ' 05 " Longitude: 82 ° 33 ' 30 "

8. Applicant name (operating authority): Pasco County BOCC

Mailing address: 7530 Little Road (Street or P.O. Box) New Port Richey (City) FL (State) 34654 (Zip)

Contact person: Mr. Vince Mannella, P.E. Telephone: (727) 856-0119

Title: Solid Waste Facility Manager

9. Authorized agent/Consultant: Camp Dresser & McKee Inc.

Mailing address: 1715 N. Westshore Blvd, Suite 875 (Street or P.O. Box) Tampa (City) FL (State) 33607 (Zip)

Contact person: Jason Gorrie, P.E. Telephone: (813) 281-2900

Title:

10. Landowner(if different than applicant): same

Mailing address: (Street or P.O. Box) (City) (State) (Zip)

Contact person: Telephone: ( )

11. Cities, towns and areas to be served: Pasco County

12. Population to be served:

Current: 327,000 Five-Year Projection: 375,000

13. Volume of solid waste to be received: 10 tons/day $yds^3$/day tons/day gallons/day

14. Date site will be ready to be inspected for completion: N/A

15. Estimated life of facility: 60 years

16. Estimated costs:

Total Construction: $ N/A Closing Costs: $ N/A

17. Anticipated construction starting and completion dates:

From: N/A To: N/A

**B. DISPOSAL FACILITY GENERAL INFORMATION**

1. Provide brief description of disposal facility design and operations planned by this application:

This application is for the renewal of the existing operating permit for the facility. No changes in the operation of the facility are requested or proposed.

2. Facility site supervisor: Mr. Vince Mannella, P.E.

Title: Solid Waste Facility Manager Telephone: (727) 856-0119

3. Disposal area: Total 20 acres; Used < 5 acres; Available > 15 acres

4. Weighing scales used: Yes [✔] No [ ]

5. Security to prevent unauthorized use: Yes [✔] No [ ]

6. Charge for waste received: _____ $/yds$^3$ 50 $/ton

7. Surrounding land use, zoning:

| | | | |
|---|---|---|---|
| Residential | [✔] | Industrial | [✔] |
| Agricultural | [ ] | None | [ ] |
| Commercial | [ ] | Other | [ ] _____ |

8. Types of waste received:

| | | | |
|---|---|---|---|
| Residential | [ ] | C & D debris | [✔] |
| Commercial | [ ] | Shredded/cut tires | [ ] |
| Incinerator / WTE ash | [ ] | Yard trash | [ ] |
| Treated biohazardous | [ ] | Septic tank | [ ] |
| Water treatment sludge | [ ] | Industrial | [ ] |
| Air treatment sludge | [ ] | Industrial sludge | [ ] |
| Agricultural | [ ] | Domestic sludge | [ ] |
| Asbestos | [ ] | | |
| Other | [ ] _____ | | |

9. Salvaging permitted: Yes [ ] No [✔]

10. Attendant: Yes [✔] No [ ] Trained operator: Yes [✔] No [ ]

11. Spotters: Yes [✔] No [ ] Number of spotters used: 1

12. Site located in: Floodplain [ ] Wetlands [ ] Other [ ] _____

13. Property recorded as a Disposal Site in County Land Records: Yes [✔] No [ ]

14. Days of operation: Monday through Saturday

15. Hours of operation: 7:00 AM through 4:30 PM

16. Days Working Face covered: weekly

17. Elevation of water table: 32 Ft. NGVD

18. Number of monitoring wells: 7

19. Number of surface monitoring points: 0

20. Gas controls used: Yes [ ] No [✔] Type controls: Active [ ] Passive [ ]

Gas flaring: Yes [ ] No [✔] Gas recovery: Yes [ ] No [✔]

21. Landfill Unit - liner type:

| | | | |
|---|---|---|---|
| Natural soils | [ ] | Double geomembrane | [ ] |
| Single clay liner | [ ] | Geomembrane & composite | [ ] |
| Single geomembrane | [✔] | Double composite | [ ] |
| Single composite | [ ] | None | [ ] |
| Slurry wall | [ ] | | |
| Other | [ ] | | |

22. Leachate collection method:

| | | | |
|---|---|---|---|
| Collection pipes | [✔] | Sand layer | [ ] |
| Geonets | [ ] | Gravel layer | [ ] |
| Well points | [ ] | Interceptor trench | [ ] |
| Perimeter ditch | [ ] | None | [ ] |
| Other | [ ] | | |

23. Leachate storage method:

| | | | |
|---|---|---|---|
| Tanks | [✔] | Surface impoundments | [ ] |
| Other | [ ] | | |

24. Leachate treatment method:

| | | | |
|---|---|---|---|
| Oxidation | [ ] | Chemical treatment | [ ] |
| Secondary | [ ] | Settling | [ ] |
| Advanced | [ ] | None | [✔] |
| Other | [ ] | | |

25. Leachate disposal method:

| | | | |
|---|---|---|---|
| Recirculated | [ ] | Pumped to WWTP | [✔] |
| Transported to WWTP | [ ] | Discharged to surface water | [ ] |
| Injection well | [ ] | Evaporation (ie: Perc Pond) | [ ] |
| Other | [ ] | _____ | |

26. For leachate discharged to surface waters:

Name and Class of receiving water: N/A

27. Storm Water: Collected: Yes [✔] No [ ] Type of treatment: N/A

Name and Class of receiving water: N/A

28. Management and Storage of Surface Waters ( MSSW ) Permit number or status: N/A

**C. MATERIALS RECOVERY / VOLUME REDUCTION FACILITY GENERAL INFORMATION**

1. Provide brief description of materials recovery / volume reduction facility design and operations planned by this application:

_____

_____

_____

2. Facility site supervisor: _____

Title: _____ Telephone: (___)_____

3. Disposal area: Total _____ acres; Used _____ acres; Available _____ acres

4. Security to prevent unauthorized use: Yes [ ] No [ ]

5. Site located in: Floodplain [ ] Wetlands [ ] Other [ ] _____

6. Days of operation: _____

7. Hours of operation: _____

8. Number of operating staff: _____

9. Expected useful life: _____ Years

10. Weighing scales used: Yes [ ] No [ ]

11. Normal processing rate: _____ $yd^3$/day _____ tons/day _____ gal/day

12. Maximum processing rate: _____ $yd^3$/day _____ tons/day _____ gal/day

13. Charge for waste received: _____

14. Type of facility (check one or more):

| | | | |
|---|---|---|---|
| Incinerator | [ ] | Composting | [ ] |
| Pulverizer / shredder | [ ] | Materials recovery | [ ] |
| Compactor / baling | [ ] | Energy recovery | [ ] |
| Sludge concentration | [ ] | Pyrolysis | [ ] |
| Other | [ ] | _____ | |

15. Material recovered, tons/week:

| | | | |
|---|---|---|---|
| _____ | Paper | _____ | Glass |
| _____ | Ferrous metals | _____ | Non-ferrous metals |
| _____ | Aluminum | _____ | Plastics |
| _____ | Other: | _____ | |

16. Energy recovery, in units shown:

| | | | |
|---|---|---|---|
| _____ | High pressure steam, lb/hr | _____ | Chilled water, gal/hr |
| _____ | Low pressure steam, lb/hr | _____ | Oil, gal/hr |
| _____ | Electricity, kw/hr | _____ | Oil, BTU/hr |
| _____ | Gas, $ft^3$/hr | _____ | Gas, BTU/hr |
| _____ | Other: | _____ | |

17. Process water management:

Recycled: Yes [ ] No [ ]

Treatment method used: _____

Discharged to: Surface waters [ ] Underground [ ] Other [ ]

Name and Class of receiving water: _____

18. Storm Water:

Collected: Yes [ ] No [ ] Type of treatment: _____

Name and Class of receiving water: _____

19. ERP Permit number or status: _____

20. Final residue produced:

_____ % of normal processing rate

_____ % of maximum processing rate

Disposed of at (Site name): _____

21. Supplemental fuel used:

Type: _____ Quantity used/hour: _____

22. Costs:

Estimated operating costs (material-energy revenue): $ _____

Total cost/ton: $ _____ Net cost/ton: $ _____

23. State pollution control bond financing amount: $ _____

24. Estimated amount of tax exemptions that will be requested: $ _____

**D. SOLID WASTE MANAGEMENT FACILITY PERMIT GENERAL REQUIREMENTS** (62-701.320, FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ✔ | | | | 1. | Six copies, at minimum, of the completed application form, all supporting data and reports; (62-701.320(5)(a),FAC) |
| ✔ | | | | 2. | Engineering and/or professional certification (signature, date and seal) provided on the applications and all engineering plans, reports and supporting information for the application; (62-701.320(6),FAC) |
| ✔ | | | | 3. | A letter of transmittal to the Department; (62-701.320(7)(a),FAC) |
| ✔ | | | | 4. | A completed application form dated and signed by the applicant; (62-701.320(7)(b),FAC) |
| ✔ | | | | 5. | Permit fee specified in Rule 62-4.050, FAC and Rule 62-701.320(5)(c), FAC in check or money order, payable to the Department; (62-701.320(7)(c),FAC) |
| ✔ | Eng. Evaluation | | | 6. | An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 1/2 inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graphs, records or logs of tests and investigations, engineering calculations; (62-701.320(7)(d),FAC)) |
| | | | ✔ | 7. | Operation Plan; (62-701.320(7)(e)1,FAC) |
| | | | ✔ | 8. | Contingency Plan; (62-701.320(7)(e)2,FAC) |
| | | | | 9. | Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD) showing; (62-702.320(7)(f),FAC) |
| | | | ✔ | | a. A regional map or plan with the project location; |
| | | | ✔ | | b. A vicinity map or aerial photograph no more than 1 year old; |
| | | | ✔ | | c. A site plan showing all property boundaries certified by a registered Florida land surveyor; |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | | d. Other necessary details to support the engineering report. |
| ___ | _____ | ___ | ✔ | 10. | Proof of property ownership or a copy of appropriate agreements between the facility operator and property owner authorizing use of property; (62-701.320(7)(g),FAC) |
| ___ | _____ | ___ | ✔ | 11. | For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of recycling goals contained in Section 403.706,FS; (62-701.320(7)(h),FAC) |
| ___ | _____ | ___ | ✔ | 12. | Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders or permit conditions relating to the operation of any solid waste management facility in this state; (62-701.320(7)(i),FAC) |
| ___ | _____ | ✔ | ___ | 13. | Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-702.320(8),FAC) |
| ___ | _____ | ___ | ✔ | 14. | Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable; (62-701.320(12),FAC) |

**E. LANDFILL PERMIT GENERAL REQUIREMENTS** (62-701.330, FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | 1. | Vicinity map or aerial photograph no more than 1 year old and of appropriate scale showing land use and local zoning within one mile of the landfill and of sufficient scale to show all homes or other structures, water bodies, and roads other significant features of the vicinity. All significant features shall be labeled; (62-701.330(4)(a),FAC) |
| ___ | _____ | ___ | ✔ | 2. | Vicinity map or aerial photograph no more than 1 year old showing all airports that are located within five miles of the proposed landfill; (62-701.330(4)(b),FAC) |
| ___ | _____ | ___ | ✔ | 3. | Plot plan with a scale not greater than 200 feet to the inch showing; (62-701.330(4)(c),FAC) |
| ___ | _____ | ___ | ✔ | | a. Dimensions; |
| ___ | _____ | ___ | ✔ | | b. Locations of proposed and existing water quality monitoring wells; |
| ___ | _____ | ___ | ✔ | | c. Locations of soil borings; |
| ___ | _____ | ___ | ✔ | | d. Proposed plan of trenching or disposal areas; |
| ___ | _____ | ___ | ✔ | | e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets; |
| ___ | _____ | ___ | ✔ | | f. Any previously filled waste disposal areas; |
| ___ | _____ | ___ | ✔ | | g. Fencing or other measures to restrict access. |
| | | | | 4. | Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing; (62-701.330(4)(d),FAC): |
| ___ | _____ | ___ | ✔ | | a. Proposed fill areas; |
| ___ | _____ | ___ | ✔ | | b. Borrow areas; |
| ___ | _____ | ___ | ✔ | | c. Access roads; |
| ___ | _____ | ___ | ✔ | | d. Grades required for proper drainage; |
| ___ | _____ | ___ | ✔ | | e. Cross sections of lifts; |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | | f. Special drainage devices if necessary; |
| ___ | _____ | ___ | ✔ | | g. Fencing; |
| ___ | _____ | ___ | ✔ | | h. Equipment facilities. |
| | | | | 5. | A report on the landfill describing the following; (62-701.330(4)(e),FAC) |
| ___ | _____ | ___ | ✔ | | a. The current and projected population and area to be served by the proposed site; |
| ___ | _____ | ___ | ✔ | | b. The anticipated type, annual quantity, and source of solid waste, expressed in tons; |
| ___ | _____ | ___ | ✔ | | c. The anticipated facility life; |
| ___ | _____ | ___ | ✔ | | d. The source and type of cover material used for the landfill. |
| ___ | _____ | ___ | ✔ | 6. | Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Rule 62-160,FAC; (62-701.330(4)(h),FAC) |
| ___ | _____ | ___ | ✔ | 7. | Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (62-701.330(4)(i),FAC) |

**F. GENERAL CRITERIA FOR LANDFILLS** (62-701.340,FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | 1. | Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100-year floodplain where it will restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result is a washout of solid waste; (62-701.340(4)(b),FAC) |
| ___ | _____ | ___ | ✔ | 2. | Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (62-701.340(4)(c),FAC) |
| ___ | _____ | ___ | ✔ | 3. | Describe what methods shall be taken to screen the landfill from public view where such screening can practically be provided; (62-701.340(4)(d),FAC) |

**G. LANDFILL CONSTRUCTION REQUIREMENTS** (62-701.400,FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | 1. | Describe how the landfill shall be designed so that solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill; (62-701.400(2),FAC) |
| | | | | 2. | Landfill liner requirements; (62-701.400(3),FAC) |
| | | | | a. | General construction requirements; (62-701.400(3)(a),FAC): |
| ___ | _____ | ___ | ✔ | (1) | Provide test information and documentation to ensure the liner will be constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure; |
| ___ | _____ | ___ | ✔ | (2) | Document foundation is adequate to prevent liner failure; |
| ___ | _____ | ___ | ✔ | (3) | Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water; |
| ___ | _____ | ___ | ✔ | (4) | Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table; |
| ___ | _____ | ___ | ✔ | (5) | Installed to cover all surrounding earth which could come into contact with the waste or leachate. |
| | | | | b. | Composite liners; (62-701.400(3)(b),FAC) |
| ___ | _____ | ___ | ✔ | (1) | Upper geomembrane thickness and properties; |
| ___ | _____ | ___ | ✔ | (2) | Design leachate head for primary LCRS including leachate recirculation if appropriate; |
| ___ | _____ | ___ | ✔ | (3) | Design thickness in accordance with Table A and number of lifts planned for lower soil component. |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| | | | | c. | Double liners; (62-701.400(3)(c),FAC) |
| ___ | _____ | ✔ | ___ | (1) | Upper and lower geomembrane thicknesses and properties; |
| ___ | _____ | ✔ | ___ | (2) | Design leachate head for primary LCRS to limit the head to one foot above the liner; |
| ___ | _____ | ✔ | ___ | (3) | Lower geomembrane sub-base design; |
| ___ | _____ | ✔ | ___ | (4) | Leak detection and secondary leachate collection system minimum design criteria ($k \geq 1$ cm/sec, head on lower liner $\leq 1$ inch, head not to exceed thickness of drainage layer); |
| | | | | d. | Standards for geomembranes; (62-701.400(3)(d),FAC) |
| ___ | _____ | ___ | ✔ | (1) | Field seam test methods to ensure all field seams are at least 90 percent of the yield strength for the lining material; |
| ___ | _____ | ___ | ✔ | (2) | Design of 24-inch-thick protective layer above upper geomembrane liner; |
| ___ | _____ | ___ | ✔ | (3) | Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above 24-inch-thick protective layer. |
| | | | | e. | Geosynthetic specification requirements; (62-701.400(3)(e),FAC) |
| ___ | _____ | ___ | ✔ | (1) | Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program; |
| ___ | _____ | ___ | ✔ | (2) | Material specifications for geomembranes, geotextiles, geogrids, and geonets; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | (3) Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and nondestructive seam testing, seam testing location, frequency, procedure, sample size and geomembrane repairs; |
| ___ | _____ | ___ | ✔ | (4) Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembrane and procedures for lining system acceptance; |
| ___ | _____ | ___ | ✔ | (5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials; |
| ___ | _____ | ___ | ✔ | (6) Geonet specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials; |
| | | | | f. Standards for soil components (62-710.400(3)(f),FAC): |
| ___ | _____ | ___ | ✔ | (1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers; |
| ___ | _____ | ___ | ✔ | (2) Demonstration of compatibility of the soil component with actual or simulated leachate in accordance with EPA Test Method 9100 or an equivalent test method; |
| ___ | _____ | ___ | ✔ | (3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | (4) Specifications for soil component of liner including at a minimum: |
| ___ | _____ | ___ | ✔ | (a) Allowable particle size distribution, Atterberg limits, shrinkage limit; |
| ___ | _____ | ___ | ✔ | (b) Placement moisture and dry density criteria; |
| ___ | _____ | ___ | ✔ | (c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate; |
| ___ | _____ | ___ | ✔ | (d) Minimum thickness of soil liner; |
| ___ | _____ | ___ | ✔ | (e) Lift thickness; |
| ___ | _____ | ___ | ✔ | (f) Surface preparation (scarification); |
| ___ | _____ | ___ | ✔ | (g) Type and percentage of clay mineral within the soil component; |
| ___ | _____ | ___ | ✔ | (5) Procedures for constructing and using a field test section to document the desired saturated hydraulic conductivity and thickness can be achieved in the field. |

3. Leachate collection and removal system (LCRS); (62-701.400(4),FAC)

a. The primary and secondary LCRS requirements; (62-701.400(4)(a),FAC)

| | | | | |
|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | (1) Constructed of materials chemically resistant to the waste and leachate; |
| ___ | _____ | ___ | ✔ | (2) Have sufficient mechanical properties to prevent collapse under pressure; |
| ___ | _____ | ___ | ✔ | (3) Have granular material or synthetic geotextile to prevent clogging; |
| ___ | _____ | ___ | ✔ | (4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| | | | | b. Primary LCRS requirements; (62-701.400(4)(b),FAC) |
| ___ | _____ | ___ | ✔ | (1) Bottom 12 inches having hydraulic conductivity $\geq 1 \times 10^{-3}$ cm/sec; |
| ___ | _____ | ___ | ✔ | (2) Total thickness of 24 inches of material chemically resistant to the waste and leachate; |
| ___ | _____ | ___ | ✔ | (3) Bottom slope design to accomodate for predicted settlement; |
| ___ | _____ | ___ | ✔ | (4) Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load and protection of geomembrane liner. |
| | | | | 4. Leachate recirculation; (62-701.400(5),FAC) |
| ___ | _____ | ✔ | ___ | a. Describe general procedures for recirculating leachate; |
| ___ | _____ | ✔ | ___ | b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water; |
| ___ | _____ | ✔ | ___ | c. Describe procedures for preventing perched water conditions and gas buildup; |
| ___ | _____ | ✔ | ___ | d. Describe alternate methods for leachate management when it cannot be recirculated due to weather or runoff conditions, surface seeps, wind-blown spray, or elevated levels of leachate head on the liner; |
| ___ | _____ | ✔ | ___ | e. Describe methods of gas management to control odors and migration of methane; |
| ___ | _____ | ✔ | ___ | f. If leachate irrigation is proposed, describe treatment methods and standards for leachate treatment prior to irrigation over final cover and provide documentation that irrigation does not contribute significantly to leachate generation. |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| | | | | 5. Leachate storage tanks and leachate surface impoundments; (62-701.400(6),FAC) |
| | | | | a. Surface impoundment requirements; (62-701.400(6)(b),FAC) |
| ___ | _____ | ✔ | ___ | (1) Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water; |
| ___ | _____ | ✔ | ___ | (2) Designed in segments to allow for inspection and repair as needed without interruption of service; |
| | | | | (3) General design requirements; |
| ___ | _____ | ✔ | ___ | (a) Double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane; |
| ___ | _____ | ✔ | ___ | (b) Leak detection and collection system with hydraulic conductivity $\geq$ 1 cm/sec; |
| ___ | _____ | ✔ | ___ | (c) Lower geomembrane placed on subbase $\geq$ 6 inches thick with k $\leq$ $1x10^{-5}$cm/sec; |
| ___ | _____ | ✔ | ___ | (d) Design calculation to predict potential leakage through the upper liner; |
| ___ | _____ | ✔ | ___ | (e) Daily inspection requirements and notification and corrective action requirements if leakage rates exceed that predicted by design calculations; |
| ___ | _____ | ✔ | ___ | (4) Description of procedures to prevent uplift, if applicable; |
| ___ | _____ | ✔ | ___ | (5) Design calculations to demonstrate minimum two feet of freeboard will be maintained; |
| ___ | _____ | ✔ | ___ | (6) Procedures for controlling vectors and off-site odors. |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| | | | | b. Above-ground leachate storage tanks; (62-701.400(6)(c),FAC) |
| ___ | _____ | ✔ | ___ | (1) Describe tank materials of construction and ensure foundation is sufficient to support tank; |
| ___ | _____ | ✔ | ___ | (2) Describe procedures for cathodic protection if needed for the tank; |
| ___ | _____ | ✔ | ___ | (3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored; |
| ___ | _____ | ✔ | ___ | (4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction; |
| ___ | _____ | ✔ | ___ | (5) Describe design to remove and dispose of stormwater from the secondary containment system; |
| ___ | _____ | ✔ | ___ | (6) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling; |
| | | | | (7) Inspections, corrective action and reporting requirements; |
| ___ | _____ | ✔ | ___ | (a) Overfill prevention system weekly; |
| ___ | _____ | ✔ | ___ | (b) Exposed tank exteriors weekly; |
| ___ | _____ | ✔ | ___ | (c) Tank interiors when tank is drained or at least every three years; |
| ___ | _____ | ✔ | ___ | (d) Procedures for immediate corrective action if failures detected; |
| ___ | _____ | ✔ | ___ | (e) Inspection reports available for department review. |
| | | | | c. Underground leachate storage tanks; (62-701.400(6)(d),FAC) |
| ___ | _____ | ___ | ✔ | (1) Describe materials of construction; |
| ___ | _____ | ___ | ✔ | (2) A double-walled tank design system to be used with the following requirements; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | (a) Interstitial space monitoring at least weekly; |
| ___ | _____ | ___ | ✔ | (b) Corrosion protection provided for primary tank interior and external surface of outer shell; |
| ___ | _____ | ___ | ✔ | (c) Interior tank coatings compatible with stored leachate; |
| ___ | _____ | ___ | ✔ | (d) Cathodic protection inspected weekly and repaired as needed; |
| ___ | _____ | ___ | ✔ | (3) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling and provide for weekly inspections; |
| ___ | _____ | ___ | ✔ | (4) Inspection reports available for department review. |
| ___ | _____ | ___ | ✔ | d. Schedule provided for routine maintenance of LCRS; (62-701.400(6)(e),FAC) |
| | | | | 6. Liner systems construction quality assurance ( CQA ): (62-701.400(7),FAC) |
| ___ | _____ | ✔ | ___ | a. Provide CQA Plan including: |
| ___ | _____ | ✔ | ___ | (1) Specifications and construction requirements for liner system; |
| ___ | _____ | ✔ | ___ | (2) Detailed description of quality control testing procedures and frequencies; |
| ___ | _____ | ✔ | ___ | (3) Identification of supervising professional engineer; |
| ___ | _____ | ✔ | ___ | (4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project; |
| ___ | _____ | ✔ | ___ | (5) State qualifications of CQA professional engineer and support personnel; |
| ___ | _____ | ✔ | ___ | (6) Description of CQA reporting forms and documents; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | b. An independent laboratory experienced in the testing of geosynthetics to perform required testing; |
| | | | | 7. Soil Liner CQA (62-701.400(8)FAC) |
| ___ | _____ | ✔ | ___ | a. Documentation that an adequate borrow source has been located with test results or description of the field exploration and laboratory testing program to define a suitable borrow source; |
| ___ | _____ | ✔ | ___ | b. Description of field test section construction and test methods to be implemented prior to liner installation; |
| ___ | _____ | ✔ | ___ | c. Description of field test methods including rejection criteria and corrective measures to insure proper liner installation. |
| | | | | 8. Surface water management systems; (62-701.400(9),FAC) |
| ___ | _____ | ___ | ✔ | a. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off; |
| ___ | _____ | ___ | ✔ | b. Details of stormwater control design including retention ponds, detention ponds, and drainage ways; |
| | | | | 9. Gas control systems; (62-701.400(10),FAC) |
| ___ | _____ | ✔ | ___ | a. Design details for gas control system including collection pipes and vents, and passive venting or vacuum extraction details; |
| ___ | _____ | ✔ | ___ | b. Documentation that the gas control system will not impact the liner or leachate control system; |
| ___ | _____ | ✔ | ___ | c. Proposed methods of odor control including flaring designs in accordance with Chapter 62-296, FAC; |
| | | | | d. Description of a routine gas monitoring program to ensure gas control system is operating properly including: |
| ___ | _____ | ✔ | ___ | (1) Location of monitoring points; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | (2) Requirements for quarterly sampling of all monitoring points; |
| ___ | _____ | ✔ | ___ | (3) Description of corrective measures to be completed within 60 days of detection of elevated levels of explosive gases; |
| ___ | _____ | ✔ | ___ | e. Description of condensate collection and disposal methods. |
| | | | | 10. Landfill gas recovery facilities; (62-701.400(11),FAC) |
| ___ | _____ | ✔ | ___ | a. Information required in Rules 62-701.320(7) and 62-701.330(4), FAC supplied; |
| ___ | _____ | ✔ | ___ | b. Information required in Rule 62-701.600(4), FAC supplied where relevant and practical; |
| ___ | _____ | ✔ | ___ | c. Estimate of current and expected gas generation rates and description of condensate disposal methods provided; |
| ___ | _____ | ✔ | ___ | d. Description of procedures for condensate sampling, analyzing and data reporting provided; |
| ___ | _____ | ✔ | ___ | e. Closure plan provided describing methods to control gas after recovery facility ceases operation; |
| ___ | _____ | ✔ | ___ | f. Performance bond provided to cover closure costs if not already included in other landfill closure costs. |
| ___ | _____ | ✔ | ___ | 11. For landfills designed in ground water, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (62-701.400(12),FAC) |

**H. HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS** (62-701.410(1), FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| | | | | 1. | Submit a hydrogeological investigation and site report including at least the following information: |
| ___ | _____ | ___ | ✔ | | a. Regional and site specific geology and hydrogeology; |
| ___ | _____ | ___ | ✔ | | b. Direction and rate of ground water and surface water flow including seasonal variations; |
| ___ | _____ | ___ | ✔ | | c. Background quality of ground water and surface water; |
| ___ | _____ | ___ | ✔ | | d. Any on-site hydraulic connections between aquifers; |
| ___ | _____ | ___ | ✔ | | e. Site stratigraphy and aquifer characteristics for confining layers, semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill; |
| ___ | _____ | ___ | ✔ | | f. Site topography and soil characteristics; |
| ___ | _____ | ___ | ✔ | | g. Inventory of all public and private water wells within a one-mile radius of the landfill including well top of casing and bottom elevations, name of owner, age and usage of each well, stratigraphic unit screened, well construction technique and static water level; |
| ___ | _____ | ___ | ✔ | | h. Description of topography, soil types and surface water drainage systems; |
| ___ | _____ | ___ | ✔ | | i. An inventory of all public and private water wells within one mile of the landfill. |
| ___ | _____ | ___ | ✔ | | j. Existing contaminated areas on landfill site. |
| ___ | _____ | ___ | ✔ | 2. | Report signed, sealed and dated by PE or PG. |

**I. GEOTECHNICAL INVESTIGATION REQUIREMENTS** (62-701.410(2),FAC)

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| | | | | 1. Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following: |
| ___ | _____ | ___ | ___ | a. Description of subsurface conditions including soil stratigraphy and ground water table conditions; |
| ___ | _____ | ___ | ___ | b. Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes; |
| ___ | _____ | ___ | ___ | c. Estimates of average and maximum high water table across the site; |
| | | | | d. Foundation analysis including: |
| ___ | _____ | ___ | ___ | (1) Foundation bearing capacity analysis; |
| ___ | _____ | ___ | ___ | (2) Total and differential subgrade settlement analysis; |
| ___ | _____ | ___ | ___ | (3) Slope stability analysis; |
| ___ | _____ | ___ | ___ | e. Description of methods used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions; |
| ___ | _____ | ___ | ___ | f. An evaluation of fault areas, seismic impact zones, and unstable areas as described in 40 CFR 258.13, 40 CFR 258.14 and 40 CFR 258.15. |
| ___ | _____ | ___ | ___ | 2. Report signed, sealed and dated by PE or PG. |

**J. VERTICAL EXPANSION OF LANDFILLS** (62-701.430,FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | 1. | Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill or adversely affect the closure design of the existing landfill; |
| ___ | _____ | ___ | ✔ | 2. | Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 62-701.400, FAC with the exceptions of Rule 62-701.430(1)(c),FAC; |
| ___ | _____ | ___ | ✔ | 3. | Provide foundation and settlement analysis for the vertical expansion; |
| ___ | _____ | ___ | ✔ | 4. | Provide total settlement calculations demonstrating that the final elevations of the lining system, that gravity drainage, and that no other component of the design will be adversely affected; |
| ___ | _____ | ___ | ✔ | 5. | Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability; |
| ___ | _____ | ___ | ✔ | 6. | Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion; |
| ___ | _____ | ___ | ✔ | 7. | Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion. |

**K. LANDFILL OPERATION REQUIREMENTS** (62-701.500,FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | Ops Plan | ___ | ✔ | 1. | Provide documentation that landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (62-701.500(1),FAC) |
| | | | | 2. | Provide a landfill operation plan including procedures for: (62-701.500(2), FAC) |
| ___ | Ops Plan | ___ | ✔ | a. | Designating responsible operating and maintenance personnel; |
| ___ | Ops Plan | ___ | ✔ | b. | Contingency operations for emergencies; |
| ___ | Ops Plan | ___ | ✔ | c. | Controlling types of waste received at the landfill; |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | Ops Plan | ___ | ✔ | | d. Weighing incoming waste; |
| ___ | Ops Plan | ___ | ✔ | | e. Vehicle traffic control and unloading; |
| ___ | Ops Plan | ___ | ✔ | | f. Method and sequence of filling waste; |
| ___ | Ops Plan | ___ | ✔ | | g. Waste compaction and application of cover; |
| ___ | Ops Plan | ___ | ✔ | | h. Operations of gas, leachate, and stormwater controls; |
| ___ | Ops Plan | ___ | ✔ | | i. Water quality monitoring. |
| ___ | Ops Plan | ___ | ✔ | 3. | Provide a description of the landfill operation record to be used at the landfill; details as to location of where various operational records will be kept (i.e. FDEP permit, engineering drawings, water quality records, etc.) (62-701.500(3),FAC) |
| ___ | Ops Plan | ___ | ✔ | 4. | Describe the waste records that will be compiled monthly and provided to the Department quarterly; (62-701.500(4),FAC) |
| ___ | Ops Plan | ___ | ✔ | 5. | Describe methods of access control; (62-701.500(5),FAC) |
| ___ | Ops Plan | ___ | ✔ | 6. | Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized wastes at the landfill; (62-701.500(6),FAC) |
| | | | | 7. | Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7),FAC) |
| ___ | Ops Plan | ___ | ✔ | | a. Waste layer thickness and compaction frequencies; |
| ___ | Ops Plan | ___ | ✔ | | b. Special considerations for first layer of waste placed above liner and leachate collection system; |
| ___ | Ops Plan | ___ | ✔ | | c. Slopes of cell working face and side grades above land surface, planned lift depths during operation; |
| ___ | Ops Plan | ___ | ✔ | | d. Maximum width of working face; |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| | | | | e. | Description of type of initial cover to be used at the facility that controls: |
| ___ | Ops Plan | ___ | ✔ | | (1) Disease vector breeding/animal attraction |
| ___ | Ops Plan | ___ | ✔ | | (2) Fires |
| ___ | Ops Plan | ___ | ✔ | | (3) Odors |
| ___ | Ops Plan | ___ | ✔ | | (4) Blowing litter |
| ___ | Ops Plan | ___ | ✔ | | (5) Moisture infiltration |
| ___ | Ops Plan | ___ | ✔ | f. | Procedures for applying initial cover including minimum cover frequencies; |
| ___ | Ops Plan | ___ | ✔ | g. | Procedures for applying intermediate cover; |
| ___ | Ops Plan | ___ | ✔ | h. | Time frames for applying final cover; |
| ___ | Ops Plan | ___ | ✔ | i. | Description of litter policing methods; |
| ___ | Ops Plan | ___ | ✔ | j. | Erosion control procedures. |
| | | | | 8. | Describe operational procedures for leachate management including; (62-701.500(8),FAC) |
| ___ | Ops Plan | ___ | ✔ | a. | Leachate level monitoring, sampling, analysis and data results submitted to the Department; |
| ___ | Ops Plan | ___ | ✔ | b. | Operation and maintenance of leachate collection and removal system, and treatment as required; |
| ___ | Ops Plan | ___ | ✔ | c. | Procedures for managing leachate if it becomes regulated as a hazardous waste; |
| ___ | Ops Plan | ___ | ✔ | d. | Agreements for off-site discharge and treatment of leachate; |
| ___ | Ops Plan | ___ | ✔ | e. | Contingency plan for managing leachate during emergencies or equipment problems; |
| ___ | Ops Plan | ___ | ✔ | f. | Procedures for recording quantities of leachate generated in gal/day; |
| ___ | Ops Plan | ___ | ✔ | g. | Procedures for comparing precipitation experienced at the landfill with leachate generation rates. |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | Ops Plan | ___ | ✔ | 9. | Describe routine gas monitoring program for the landfill as required by Rule 62-701.400(10),FAC; (62-701.500(9),FAC) |
| ___ | Ops Plan | ___ | ✔ | 10. | Describe procedures for operating and maintaining the landfill stormwater management system to comply with the standards of Chapters 62-3, 62-302 and 62-25, FAC; (62-701.500(10),FAC) |
| | | | | 11. | Equipment and operation feature requirements; (62-701.500(11),FAC) |
| ___ | Ops Plan | ___ | ✔ | a. | Sufficient equipment for excavating, spreading, compacting and covering waste; |
| ___ | Ops Plan | ___ | ✔ | b. | Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown; |
| ___ | Ops Plan | ___ | ✔ | c. | Communications equipment; |
| ___ | Ops Plan | ___ | ✔ | d. | Personnel shelter and sanitary facilities, first aid equipment; |
| ___ | Ops Plan | ___ | ✔ | e. | Dust control methods; |
| ___ | Ops Plan | ___ | ✔ | f. | Fire protection capabilities and procedures for notifying local fire department authorities in emergencies; |
| ___ | Ops Plan | ___ | ✔ | g. | Litter control devices; |
| ___ | Ops Plan | ___ | ✔ | h. | Signs indicating operating authority, traffic flow, hours of operation, disposal restrictions. |
| ___ | Ops Plan | ___ | ✔ | 12. | Provide a description of all-weather access road, inside perimeter road and other roads necessary for access which shall be provided at the landfill; (62-701.500(12),FAC) |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| | | | | 13. Additional record keeping and reporting requirements; (62-701.500(13),FAC) |
| ___ | Ops Plan | ___ | ✔ | a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill; |
| ___ | Ops Plan | ___ | ✔ | b. Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years; |
| ___ | Ops Plan | ___ | ✔ | c. Background water quality records shall be maintained for the design period of the landfill; |
| ___ | Ops Plan | ___ | ✔ | d. Maintain annual estimates of the remaining life of constructed landfills and of other permitted areas not yet constructed and submit this estimate annually to the Department. |

**L. WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS** (62-701.510, FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | 1. | Water quality and leachate monitoring plan shall be submitted describing the proposed ground water, surface water and leachate monitoring systems and shall meet at least the following requirements; |
| ___ | _____ | ___ | ✔ | a. | Based on the information obtained in the hydrogeological investigation and signed, dated and sealed by the PG or PE who prepared it; (62-701.510(2)(a),FAC) |
| ___ | _____ | ___ | ✔ | b. | All sampling and analysis preformed by organizations having Department approved Comprehensive Quality Assurance Plans; (62-701.510(2)(b),FAC) |
| | | | | c. | Ground water monitoring requirements; (62-701.510(3),FAC) |
| ___ | _____ | ___ | ✔ | (1) | Detection wells located downgradient from and within 50 feet of disposal units; |
| ___ | _____ | ___ | ✔ | (2) | Downgradient compliance wells as required; |
| ___ | _____ | ___ | ✔ | (3) | Background wells screened in all aquifers below the landfill that may be affected by the landfill; |
| ___ | _____ | ___ | ✔ | (4) | Location information for each monitoring well; |
| ___ | _____ | ___ | ✔ | (5) | Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells unless site specific conditions justify alternate well spacings; |
| ___ | _____ | ___ | ✔ | (6) | Well screen locations properly selected; |
| ___ | _____ | ___ | ✔ | (7) | Procedures for properly abandoning monitoring wells; |
| ___ | _____ | ___ | ✔ | (8) | Detailed description of detection sensors if proposed. |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| | | | | d. | Surface water monitoring requirements; (62-701.510(4),FAC) |
| ___ | _____ | ___ | ✔ | | (1) Location of and justification for all proposed surface water monitoring points; |
| ___ | _____ | ___ | ✔ | | (2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor; |
| ___ | _____ | ___ | ✔ | e. | Leachate sampling locations proposed;(62-701.510(5),FAC) |
| | | | | f. | Routine sampling frequency and requirements; (62-701.510(6),FAC) |
| ___ | _____ | ___ | ✔ | | (1) Background ground water and surface water sampling and analysis requirements; |
| ___ | _____ | ___ | ✔ | | (2) Leachate semi-annual and annual sampling and analysis requirements; |
| ___ | _____ | ___ | ✔ | | (3) Detection well semi-annual sampling and analysis requirements; |
| ___ | _____ | ___ | ✔ | | (4) Compliance well sampling and analysis requirements; |
| ___ | _____ | ___ | ✔ | | (5) Surface water sampling and analysis requirements. |
| ___ | _____ | ___ | ✔ | g. | Describe procedures for implementing assessment monitoring and corrective action as required; (62-701.510(7),FAC) |
| ___ | _____ | ___ | ✔ | h. | Water quality monitoring report requirements; (62-701.510(9),FAC) |
| ✔ | GW Evaluation | ___ | ___ | | (1) Semi-annual report requirements; |
| ✔ | GW Evaluation | ___ | ___ | | (2) Bi-annual report requirements signed, dated and sealed by PG or PE. |

**M. SPECIAL WASTE HANDLING REQUIREMENTS** (62-701.520, FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | 1. | Describe procedures for managing motor vehicles; (62-701.520(1),FAC) |
| ___ | _____ | ✔ | ___ | 2. | Describe procedures for landfilling shredded waste; (62-701.520(3),FAC) |
| ___ | _____ | ✔ | ___ | 3. | Describe procedures for asbestos waste disposal; (62-701.520(4),FAC) |
| ___ | _____ | ✔ | ___ | 4. | Describe procedures for contaminated soil disposal; (62-701.520(5), FAC) |

**N. LANDFILL FINAL CLOSURE REQUIREMENTS** (62-701.600,FAC)

1. Closure schedule requirements; (62-701.600(2),FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | a. | Documentation that a written notice including a schedule for closure will be provided to the Department at least one year prior to final receipt of wastes; |
| ___ | _____ | ___ | ✔ | b. | Notice to user requirements within 120 days of final receipt of wastes; |
| ___ | _____ | ___ | ✔ | c. | Notice to public requirements within 10 days of final receipt of wastes. |

2. Closure permit general requirements; (62-701.600(3),FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | a. | Application submitted to Department at least 90 days prior to final receipt of wastes; |
| | | | | b. | Closure plan shall include the following: |
| ___ | _____ | ✔ | ___ | (1) | Closure report; |
| ___ | _____ | ✔ | ___ | (2) | Closure design plan; |
| ___ | _____ | ✔ | ___ | (3) | Closure operation plan; |
| ___ | _____ | ✔ | ___ | (4) | Closure procedures; |
| ___ | _____ | ✔ | ___ | (5) | Plan for long term care; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | (6) A demonstration that proof of financial responsibility for long term care will be provided. |

3. Closure report requirements; (62-701.600(4),FAC)

a. General information requirements;

| | | | | |
|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | (1) Identification of landfill; |
| ___ | _____ | ✔ | ___ | (2) Location, description and vicinity map; |
| ___ | _____ | ✔ | ___ | (3) Total acres of disposal areas and landfill property; |
| ___ | _____ | ✔ | ___ | (4) Legal property description; |
| ___ | _____ | ✔ | ___ | (5) History of landfill; |
| ___ | _____ | ✔ | ___ | (6) Identification of types of waste disposed of at the landfill. |
| ___ | _____ | ✔ | ___ | b. Geotechnical investigation report and water quality monitoring plan required by Rule 62-701.330(4),FAC; |
| ___ | _____ | ✔ | ___ | c. Land use information report indicating: identification of adjacent landowners; zoning; present land uses; and roads, highways right-of-way, or easements. |
| ___ | _____ | ✔ | ___ | d. Report on actual or potential gas migration at landfills containing biodegradable wastes including detailed description of test and investigation methods used; |
| ___ | _____ | ✔ | ___ | e. Report assessing the effectiveness of the landfill design and operation including results of geotechnical investigations, surface water and storm water management, gas migration and concentrations, condition of existing cover, and nature of waste disposed of at the landfill; |

4. Closure design requirements to be included in the closure design plan: (62-701.600(5),FAC)

| | | | | |
|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | a. Plan sheet showing phases of site closing; |

| S | LOCATION | N/A | N/C | |
|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | b. Drawings showing existing topography and proposed final grades; |
| ___ | _____ | ✔ | ___ | c. Provisions to close units when they reach approved design dimensions; |
| ___ | _____ | ✔ | ___ | d. Final elevations before settlement; |
| ___ | _____ | ✔ | ___ | e. Side slope design including benches, terraces, down slope drainage ways, energy dissipators and discussion of expected precipitation effects; |
| | | | | f. Final cover installation plans including: |
| ___ | _____ | ✔ | ___ | (1) CQA plan for installing and testing final cover; |
| ___ | _____ | ✔ | ___ | (2) Schedule for installing final cover after final receipt of waste; |
| ___ | _____ | ✔ | ___ | (3) Description of drought-resistant species to be used in the vegetative cover; |
| ___ | _____ | ✔ | ___ | (4) Top gradient design to maximize runoff and minimize erosion; |
| ___ | _____ | ✔ | ___ | (5) Provisions for cover material to be used for final cover maintenance. |
| | | | | g. Final cover design requirements: |
| ___ | _____ | ✔ | ___ | (1) Protective soil layer design; |
| ___ | _____ | ✔ | ___ | (2) Barrier soil layer design; |
| ___ | _____ | ✔ | ___ | (3) Erosion control vegetation; |
| ___ | _____ | ✔ | ___ | (4) Geomembrane barrier layer design. |
| ___ | _____ | ✔ | ___ | h. Proposed method of stormwater control; |
| ___ | _____ | ✔ | ___ | i. Proposed method of access control; |
| ___ | _____ | ✔ | ___ | j. Description of proposed final use of the closed landfill, if any; |

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| | | | | 5. | Closure operation plan shall include: (62-701.600(6),FAC) |
| ___ | _____ | ✔ | ___ | | a. Detailed description of actions which will be taken to close the landfill; |
| ___ | _____ | ✔ | ___ | | b. Time schedule for completion of closing and long term care; |
| ___ | _____ | ✔ | ___ | | c. Describe proposed method for demonstrating financial responsibility; |
| ___ | _____ | ✔ | ___ | | d. Indicate any additional equipment and personnel needed to complete closure. |
| ___ | _____ | ✔ | ___ | | e. Development and implementation of the water quality monitoring plan required in Rule 62-701.510, FAC. |
| ___ | _____ | ✔ | ___ | | f. Development and implementation of routine gas monitoring program required in Rule 62-701.400(10)(c), FAC. |
| ___ | _____ | ✔ | ___ | 6. | Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(7),FAC) |

**O. CLOSURE PROCEDURES** (62-701.610,FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | 1. | Survey monuments; (62-701.610(2),FAC) |
| ___ | _____ | ✔ | ___ | 2. | Final survey report; (62-701.610(3),FAC) |
| ___ | _____ | ✔ | ___ | 3. | Certification of closure construction completion; (62-701.610(4),FAC) |
| ___ | _____ | ✔ | ___ | 4. | Declaration to the public; (62-701.610(5),FAC) |
| ___ | _____ | ✔ | ___ | 5. | Official date of closing; (62-701.610(6),FAC) |
| ___ | _____ | ✔ | ___ | 6. | Use of closed landfill areas; (62-701.610(7),FAC) |

**P. LONG TERM CARE REQUIREMENTS** (62-701.620,FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | 1. | Right of property access requirements; (62-701.620(4),FAC) |
| ___ | _____ | ✔ | ___ | 2. | Successors of interest requirements; (62-701.620(5),FAC) |
| ___ | _____ | ✔ | ___ | 3. | Requirements for replacement of monitoring devices; (62-701.620(7),FAC) |
| ___ | _____ | ✔ | ___ | 4. | Completion of long term care signed and sealed by professional engineer (62-701.620(8), FAC). |

**Q. FINANCIAL RESPONSIBILITY REQUIREMENTS** (62-701.630,FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ✔ | 1. | Provide cost estimates for closing, long term care, and corrective action costs estimated by a PE for a third party performing the work, on a per unit basis, with the source of estimates indicated; (62-701.630(3)&(7), FAC). |
| ___ | _____ | ___ | ✔ | 2. | Describe procedures for providing annual cost adjustments to the Department based on inflation and changes in the closing, long-term care, and corrective action plans; (62-701.630(4)&(8), FAC). |
| ___ | _____ | ___ | ✔ | 3. | Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms; (62-701.630(5),(6),&(9), FAC). |

**R. CLOSURE OF EXISTING LANDFILLS** (62-701.640, FAC)

| S | LOCATION | N/A | N/C | | |
|---|---|---|---|---|---|
| ___ | _____ | ✔ | ___ | 1. | Demonstration that facility does not pose a bird hazard to aircraft as specified in Rule 62-701.320(12)(b), FAC. |
| ___ | _____ | ✔ | ___ | 2. | Demonstration that facility does not restrict the flow of the 100-year flood, reduce water storage capacity or result in wash-out of solid waste as specified in Rule 62-701.340(4)(b), FAC. |
| ___ | _____ | ✔ | ___ | 3. | Demonstration that facility is not located in a fault area, seismic zone or unstable area as specified in Rule 62-701.410(2)(c), FAC. |
| | | | | 4. | Request for extension of closure criteria as specified in Rule 62-701.640(2)(a) & (2)(b), FAC. |
| ___ | _____ | ✔ | ___ | | a. Demonstration of no alternative disposal capacity. |
| ___ | _____ | ✔ | ___ | | b. Demonstration of no threat to human health or the environment. |

**S. MATERIALS RECOVERY FACILITY REQUIREMENTS** (62-701.700,FAC)

| | | | | | |
|---|---|---|---|---|---|
| ___ | _____ | ___ | ___ | 1. | Demonstration of financial assurance to cover closing costs, if required; (62-701.700(4),FAC) |
| ___ | _____ | ___ | ___ | 2. | Materials recovery facility requirements; (62-701.700,FAC) |
| ___ | _____ | ___ | ___ | | a. Submit information required in Rule 62-701.320,FAC |
| ___ | _____ | ___ | ___ | | b. Submit an engineering report including the following: |
| ___ | _____ | ___ | ___ | | (1) Description of the solid waste proposed to be collected, stored, processed or disposed; |
| ___ | _____ | ___ | ___ | | (2) Projection with assumptions for waste types and quantities expected in future years; |

| S | LOCATION | N/A | N/C |
|---|---|---|---|
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ____ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |
| ___ | _____ | ___ | ___ |

(3) Description of operation and functions of all processing equipment with design criteria and expected performance;

(4) Description of flow of solid waste, expected regular facility operations, procedures for start up and shut down, potential safety hazards and control methods including fire protection;

(5) Description of loading, unloading, and processing areas;

(6) Identification and capacity of temporary on-site storage areas for materials handled and provisions for solid waste and leachate containment;

(7) Identification of potential ground water and surface water contamination;

(8) Plan for disposal of unmarketable recyclables and residue and contingencies for waste handling during breakdowns.

c. Submit the following operational information:

(1) Operation and maintenance manual;

(2) Waste control plan to manage unauthorized wastes;

(3) Contingency plan for emergencies;

(4) Closure plan including the following:

(a) Notification to Department 180 days prior to closure;

(b) Procedures for removal of all waste within 30 days of receipt of final waste;

(c) Completion of closure activities within 180 days of receipt of final waste and notification to the Department that closure is complete.

## T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

A. Applicant

The undersigned applicant or authorized representative of Pasco County is aware that statements made in this form and attached information are an application for a renewed Operation Permit from the Florida Department of Environmental Regulation and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

Vince Mannella, P.E., Facility Manager
Name and Title

Date: 2-9-01

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

B. Professional Engineer Registered in Florida or Public Officer as required in Section 403.707 and 403.707(5), Florida Statutes.

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Signature

Jason M. Gorrie
Name and Title (please type)

5534
Florida Registration Number
(please affix seal)

Date: 1/24/01

1715 N. Westshore Blvd, Suite 875
Mailing Address

Tampa, FL 33607
City, State, Zip Code

(813) 281-2900
Telephone Number

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

FEB 2 2 2001

SOUTHWEST DISTRICT
TAMPA

DEP FORM 62-701.900(1)
Effective 05-19-94

# 1.0 Introduction

The West Pasco Class III Landfill has no gas collection utilities. As a Class III facility that disposes primarily of construction and demolition (C&D) material, gas generation is expected to be minimal. Nonetheless, Pasco County has implemented a gas monitoring program, whereby the scalehouse and the landfill operator's office are monitored quarterly for the Lower Explosive Limit (LEL) of methane. The quarterly sampling routine is designed to demonstrate that concentrations of methane and other explosive gases do not exceed 25% of the LEL in structures near the landfill.

# 2.0 Gas Sampling Results

Pasco County Environmental Laboratory ("laboratory") personnel are responsible for obtaining quarterly gas samples at the site. Sampling procedures used by the laboratory, including calibration and field measurements adhere to an FDEP approved Quality Assurance Plan (QAP).

Table 1-1 provides the results of routine gas sampling conducted at the site for the past 5 years.

# 3.0 Landfill Operation

Operations at the landfill continue to be in accordance with the previously approved Landfill Operations Plan. Cell number 1 remains the only active cell of the four at the site, and is expected to remain so for the next several years. Physical inspection of the berms separating the disposal cells revealed that they remain in good condition. Similarly, the leachate collection system was inspected and continues to operate as designed. The stormwater system for the landfill has not changed and remains adequate for the site.

# 4.0 Summary/Evaluation

No significant changes in operation or construction have occurred at the West Pasco Class III landfill subsequent to the issuance of Permit No. SO51-267334. All aspects of the previously approved Landfill Operations Plan should remain in effect, including quarterly gas monitoring at the scalehouse and landfill operator's office.

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

FEB 2 2 2001

SOUTHWEST DISTRICT
TAMPA

## Table 1-1
## Percent LEL Methane

| | *scalehouse* | *landfill operator's office* |
|---|---|---|
| 1Q95 | 0% | 0% |
| 3Q95 | 0% | 0% |
| 1Q96 | 0% | 0% |
| 3Q96 | 0% | 0% |
| 1Q96 | 0% | 0% |
| 3Q97 | 0% | 0% |
| 1Q98 | 0% | 0% |
| 3Q98 | 0% | 0% |
| 1Q99 | 0% | 0% |
| 3Q99 | 0% | 0% |
| 1Q00 | 0% | 0% |
| 3Q00 | 0% | 0% |