

OPERATION PLAN

Hillsborough Southeast County Landfill

PERMIT NO: 35435-022-SO/01

WACS FACILITY ID: 41193

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**OPERATION PLAN
PHASES I-VI AND THE
CAPACITY EXPANSION AREA
(SECTIONS 7, 8, AND 9)
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA**

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PART K INTRODUCTION

The Southeast County Facility (Facility) includes the Southeast County Landfill (SCLF), which is permitted by the Florida Department of Environmental Protection (FDEP) as a Class I landfill for Phases I-VI and the Capacity Expansion Area. This Operation Plan includes Phases I-VI and Sections 7, 8, and 9 of the Capacity Expansion Area.

The Facility is the final depository for municipal solid waste (MSW) ash residues, non-processables, and bypass wastes from the Solid Waste Management System of Unincorporated Hillsborough County. The Facility also receives solid waste from the cities of Temple Terrace and Tampa, as well as MSW ash residues and bypass wastes from the Waste-to-Energy Incinerator Facilities of the City of Tampa and Hillsborough County. Hazardous waste will not be accepted at the Facility.

This operation plan was prepared in conjunction with an operation permit application; as such, the format follows the requirements of Part K of the Permit Application Form.

K.1 TRAINING

In accordance with Rule 62-701.500(1), Florida Administrative Code (FAC), key supervisory personnel at the Facility have received Landfill Operator Certification training. Operator training includes a 24-hour initial course and 16 hours of continuing education every three years. Spotter training includes an 8-hour initial course and four hours of continuing education every three years. Operator and Spotter training courses are offered by the University of Florida Center for Training, Research and Education for Environmental Occupations (TREEO) and through other FDEP-approved sources. Landfill personnel are encouraged to attend these courses after discussions with the Landfill Manager. The currently available TREEO training courses and schedule are listed in Appendix A. The listing is also available at www.treeo.ufl.edu. Documentation demonstrating that the facility operators and spotters have received the required continuing education is presented in Attachment D.15 of the Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9) Permit Renewal Application dated June 2013.

As required by Rule 62-701.500(1), FAC, a certified Landfill Operator will be on site when waste is received for disposal at the landfill, and a trained spotter will be on site during all times when waste is deposited at the landfill working face to detect any unauthorized wastes. In addition, the equipment operators have sufficient training and knowledge to move waste and soil and to develop the site in accordance with the design and operational standards described in the operation permit application.

K.2 LANDFILL OPERATION PLAN

K.2.a. SWMG Organization and Responsibilities

Hillsborough County (County) owns the Facility and is the applicant for the operation permit. A Landfill Contractor (Contractor), currently Waste Management, Inc. of Florida, will operate and maintain the Facility in accordance with the permit conditions under the contract that exists between the County and the Contractor.

The following Hillsborough County Public Utilities Department, Solid Waste Management Group (SWMG) and Contractor personnel are currently responsible for the operations at this Facility:

- Larry E. Ruiz, Landfill General Manager (SWMG)
- Ernest Ely, District Landfill Manager (Contractor)

In addition, the following positions are maintained at the Facility: scale-house clerks (SWMG), waste monitors (SWMG), equipment operators (Contractor), spotters (Contractor), laborers (Contractor), security personnel (Contractor), and mechanic (Contractor). At least one trained operator familiar with the landfill operations will be on site at all times while the Facility is open in accordance with Rules 62-701.320(15) and 62-701.500(1), FAC.

K.2.b. Contingency Plan

The contingency plan for the Facility is based upon addressing two potential emergencies:

- Equipment failure.
- Large influx of material resulting from a natural disaster such as a hurricane, fire, or from a breakdown at local waste-to-energy facilities.

Sufficient backup equipment will be provided on site for equipment breakdowns and downtime for normal routine equipment maintenance. If primary and backup major equipment (i.e., landfill compactor or bulldozer) fail, one or both of the following contingency measures will be implemented:

- Use existing contracts with contractors and rental equipment dealers to furnish rental equipment on short notice (Appendix B).
- Establish arrangements with other County agencies to furnish equipment.

The Contractor will be responsible for providing equipment and a working force of adequate size and skill to maintain the landfill operation in compliance with all applicable federal, state, and

local regulations. If sufficient local personnel are not available, the Contractor will relocate from other facilities sufficient personnel with the proper skills to maintain operations.

Given that a large volume of wastes requiring disposal from a natural disaster is non-putrescible, it can be stored on site temporarily (adjacent to the working face) and landfilled after the state of emergency has ended.

In the case of a large fire, bomb threat, or other unforeseen situation requiring specialized emergency response personnel, 911 will be called for the local Fire Department or Sheriff's Department. Waste handling will be suspended and the affected area will be evacuated, if necessary. The landfill will be temporarily closed until the responding Department determines that the landfill is safe for re-entry. If the Facility will remain closed for more than 48 hours, the incoming waste will be diverted to an alternate facility in an adjacent county.

In case of an accidental spill of oil, fuel, leachate, or chemicals, the spill will be minimized by controlling the source immediately (e.g., by closing the valve, turning-off switch, or taking any other necessary action). The affected area will be protected by diverting vehicular traffic. Building a berm, plugging a drain or ditch, or adding absorbent material will control runoff from the affected area. The affected area will be cleaned, and the effectiveness of the cleanup confirmed by sampling, as needed, depending on the nature of the spilled material. For spill countermeasures of secondary containment at the Leachate Treatment and Reclamation Facility (LTRF) and the effluent/leachate storage tank, refer to Section 11.0 of the Leachate Management Plan (LMP) in Appendix C of the permit application.

K.2.c. Waste Type Control

The automated accounting system, clerks at the scalehouse, and the site security fence help discourage unauthorized entry and uncontrolled disposal of unauthorized waste. A sign at the entrance states the general regulations including the types of prohibited solid waste.

A minimum of three random load inspections of solid waste per week will be conducted at the active landfill (See Part K.6 and Appendix C). As an additional control, the SWMG has one waste monitor and the Contractor has at least one trained spotter at the working face to visually inspect each load of waste as it is unloaded and deposited. If any unauthorized special waste (i.e., lead-acid batteries, used oil, yard trash, white goods, and whole tires) is found at the working face during the random inspection or as part of routine operations, the waste will be segregated and removed from the site for recycling or other processing in accordance with FDEP regulations. Items that may contain liquids or gases will be stored upright, undamaged, and in a container as appropriate. The maximum on-site storage will be as follows:

- 50 batteries in a secondary containment covered tray.
- 20 gallons of used oil placed upright in an undamaged container.
- 40 cubic yards (cy) yard trash in one 40-cy roll-off container.

- 75 white goods and lawnmowers placed upright (on the ground) until all liquids, chlorofluorocarbons (CFCs), and Freon are removed. After the metal recycling contractor removes all liquids, CFCs, and Freon, the white goods are marked with spray paint to indicate that they are ready to be placed in the scrap metal containers.
- Scrap metal in two 40-cy roll-off containers (including processed white goods).

These special wastes will be stored next to the working face and removed from the site within 30 days.

Whole tires will be shredded on site and may be used as initial cover. Lead-acid batteries will be collected by the SWMG's contracted battery recycler. Scrap metal, including white goods and lawnmowers, will be collected and processed by the SWMG's metals recycling contractor. Propane tanks will be collected by the recycling contractor. Used oil and yard trash will be rejected, required to be reloaded, and directed to be taken to the household chemical collection center at the South County Transfer Station.

If unauthorized waste (i.e., hazardous, polychlorinated biphenyl's (PCBs), untreated biomedical, or free liquid) is found at the working face, the waste will be isolated and the Landfill Manager will be immediately notified. The Landfill Manager is trained in the proper procedure to follow, including notifying the FDEP. Similarly, if suspect waste is found, the waste will be isolated and the Landfill Manager notified. The Landfill Manager will prepare a suspect waste report and ensure that the waste is properly managed (Appendix C). If hazardous wastes are found, the FDEP will be notified immediately and the waste will be isolated and restricted from access until it is removed from the landfill by a qualified hazardous waste contractor. Hazardous wastes will be removed from the Facility within 24 hours.

K.2.c.(1) Special Waste

The SWMG has established policies, procedures, and guidelines for managing special waste to comply with federal, state, and local regulations for minimizing risks to the environment, public health, and employees posed by non-hazardous and unregulated waste. Appendix D presents the SWMG Special Waste Program, which includes guidelines and procedures for accepting and evaluating special waste. Appendix D presents the current policies and management procedures for asbestos, empty containers, ash, soil, PCBs, tires, industrial waste, yard waste, chemical waste, used motor oil, construction and demolition debris, white goods, waste tires, household batteries, other batteries, paint, bio-hazardous, and household hazardous waste. The following are the objectives of the special waste program:

- Preclude the entry and disposal of hazardous waste into the Facility.
- Preclude leachate developing hazardous waste characteristics.
- Protect the landfill liner.
- Prevent objectionable odors from becoming a problem.
- Ensure that delivered materials can be handled safely.

K.2.c.(2) Motor Vehicles

Motor vehicles will not be accepted at the facility; however, mobile homes will be accepted for disposal in the landfill at the active working face if they cannot be recycled. Appliances (white goods) and waste tires from mobile homes must be removed before being accepted at the facility and processed as stated in Section K.2.c.

K.2.c.(3) Shredded Waste

The Facility will accept shredded tires from the on-site tire-shredding facility. The SWMG uses shredded tires for initial cover since shredded tires are an effective initial cover for controlling disease, vectors, odors, litter, and scavenging. This practice benefits the County by conserving valuable landfill space and recycling materials.

K.2.c.(4) Asbestos Waste

Asbestos waste will be accepted at the Facility. The entire footprint of Phases I-VI and the Capacity Expansion Area will be designated as an asbestos disposal area. Before landfilling, the material must be wetted and placed in a leak-tight wrapping. The bags will be placed in a prepared trench at the working face. Materials such as transite paneling and pipe insulation must be wrapped sufficiently to maintain their integrity during disposal. After placement, the bags will be immediately covered with 6 inches of asbestos-free material (i.e., soil or select waste without large or sharp objects that may damage the asbestos packaging). The location, quantity and source of asbestos containing material will be documented. Copies of the asbestos waste shipment records complying with 40 CFR 61-Subpart M will be maintained on site.

K.2.c.(5) Wastewater Treatment Biosolids

Biosolids (industrial and domestic sludge) from wastewater treatment systems are accepted for disposal in the landfill. Biosolids will be applied to the working face of the landfill and daily cover applied in accordance with Section K.2.g to control odors. Disposal operations of biosolids will not occur within 50 feet of exterior side slopes. A TCLP test of the biosolids from each wastewater treatment plant will be performed at least annually. In addition, biosolids from each wastewater treatment plant (WWTP) will be required to pass the paint filter test which will be based on the percent solids of the biosolids produced by each WWTP.

A paint filter test will be initially performed on the biosolids to demonstrate the minimum percent solids content that will pass the paint filter test. Thereafter, each WWTP will be required to provide a report of the percent solids content of the biosolids delivered each day to the Facility. Biosolids from the WWTPs with percent solids content at or above the minimum solids content passing the paint filter test will be accepted at the Facility. In the event the percent solids content from a WWTP is below the minimum solids content, the WWTP must, before disposal at the SCLF, perform and provide documentation that the lower percent solids content passes the paint filter test.

K.2.d. Weighing Incoming Waste

All incoming waste will be weighed before disposal in the landfill. The existing scales are fully automated and computerized, with the capability for data storage and retrieval for daily record keeping and reporting. All customers are issued receipts upon exiting the Facility.

K.2.e. Traffic Control

The working face area is the most equipment-intensive area of operation for the Facility. In this area, solid waste transportation vehicles arrive, turn around, back up to the working face, and unload the solid waste. Landfill operation equipment will continually spread and compact the solid waste as it is received. During normal operating conditions, only one working face will be active at any given time, with the solid waste at all other areas within the landfill secured by a minimum of 6 inches of initial cover. The working face may alternate from month to month from Phases I-VI to the active cells at the Capacity Expansion Area (CEA) and back. It is intended that only one working face will be active at a time at either Phases I-VI or the CEA. However, during the initial placement of selected waste in each section of the CEA, a temporary working face will be maintained at Phases I-VI for the placement of large rigid objects and construction demolition debris.

The approach to the working face will be maintained in an accessible condition so that two or more vehicles may safely unload simultaneously side by side. When unloading is complete, the vehicles will immediately leave the working face area. Entrance and exit haul roads will be provided (both temporary and permanent) and maintained to facilitate future unloading operations. Contractor personnel will direct traffic as necessary to expedite safe movement of vehicles and to ensure that all waste transport vehicles dump within the designated area.

K.2.f. Method and Sequence of Filling Waste

Each phase will be landfilled as shown in the Operating Sequence Plans provided with the Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9) Permit Renewal Application and in Appendix E. The lifts in each of the several phases are shown on one sheet to minimize the number of sheets, but each lift is independent of the others.

K.2.f.(1) Phases I-VI

One working face will be maintained for the anticipated traffic maneuvering during waste fill operations. Typical lifts consist of two lifts 8 to 10 feet high, to reach the maximum elevation shown on the operating sequence drawings including daily and intermediate cover. Because of the phosphatic clay liner stability in Phases I-VI, at no time shall a lift exceed the maximum height shown on the operating sequence drawings. The initial filling in Phases I-VI was completed in 2010. Waste filling will continue over the existing area as shown on the operating sequence plans. Existing intermediate cover placed over the Phase I-VI area will be removed as

landfilling progresses. The remaining air space in Phases I-VI is divided into eleven lifts (13-23) as shown on the drawings.

The Contractor will prepare filling plans in accordance with the sequence drawings 45 days before the development of a new lift. Subsequently, grades for the new lift will be set on grade stakes by a registered engineer, land-surveyor, or by an authorized agent.

Landfilling in Lifts 13-16 (Sheet 4) begins on the west side of Phase I and proceeds counter clockwise over Phases I, II, III and IV. The volume of waste in Lifts 13-16 is estimated to be 1,944,000 CY.

Landfilling in Lift 17 (Sheet 5) begins on the west side of Phase III and proceeds from east to west over Phases IV, V and VI. The volume of waste in Lift 17 is estimated to be 1,172,000 CY.

Landfilling in Lifts 18-21 (Sheet 6) begins on the south side of Phase I and proceeds counter clockwise over Phases I, II, III and IV. The volume of waste in Lifts 18-21 is estimated to be 1,361,000 CY.

Landfilling in Lift 22 (Sheet 7) begins on the south side of Phase IV and proceeds from east to west over Phases IV, V and VI. The volume of waste in Lift 22 is estimated to be 800,000 CY.

Landfilling in Lift 23 (Sheet 8) begins in the center of Phases I-VI, near Phase II and proceeds from east to west over Phases I through VI, to the permitted final grades (Elev 255) of the landfill. The volume of waste in Lift 23 is estimated to be 981,000 CY. Upon completion of filling operations in Lift 23, final cover will be placed over the entire Phase I-VI area as described in Section K.7.h.

K.2.f.(1) Section 7 of the Capacity Expansion Area

The temporary filling in Section 7 was complete as of May 2005. The outer sideslopes have not reached their final design 3H:1V slope. The temporary sideslopes of Section 7 will be filled to reach their maximum design slope of 3H:1V during waste filling operations in Section 9.

The east and south sideslopes as well as most of the top of Section 7 have received intermediate cover. Stormwater runoff from the top of Section 7 sheet flows to a downchute on the southeast corner that discharges to a culvert leading to sedimentation basin Sed C. Stormwater runoff from the sideslopes of Section 7 drains to the perimeter ditches, eventually flowing to the culvert to Sed C. Any stormwater that does not infiltrate into the ground at Sed C discharges to Pond C for additional attenuation prior to flowing through the on-site stormwater management system described in Section K.10.

K.2.f.(2) Section 8 of the Capacity Expansion Area

The temporary filling in Section 8 was completed as of May 2007. Similar to Section 7, the outer sideslopes have not reached their final design slope of 3H:1V. The temporary sideslopes of Section 8 will be filled to reach their design slope during waste filling operations in Section 9.

The east and north sideslopes, as well as most of the top of Section 8 have received intermediate cover. Stormwater runoff from the top of Section 8 sheet flows to a down chute on the northeast corner that discharges to perimeter ditches that eventually flows to a culvert that discharges to sedimentation basin Sed C. Stormwater runoff on the east sideslope drains to perimeter ditches, eventually flowing to the culvert to Sed C. Stormwater runoff on the north sideslope of Section 8 flows easterly along perimeter ditches around the CEA eventually discharging through the culvert to Sed C. Any stormwater that does not infiltrate into the ground in Sed C discharges to Pond C for additional attenuation prior to flowing through the on-site stormwater management system described in Section K.10.

K.2.f.(3) Section 9 of the Capacity Expansion Area

One working face will be maintained for the anticipated traffic maneuvering during waste fill operations. Typical lifts consist of two lifts 8 to 10 feet high, to reach the maximum elevation shown on the operating sequence drawings including daily and intermediate cover.

The proposed filling sequence for Section 9 is presented in the drawings provided in Appendix E. Waste placement in Section 9 began in February 2009 following the filling and stormwater management plans described in the 2007 Construction Permit Application.

Waste placement in Section 9 has proceeded against the west sideslopes of Sections 7 and 8 and landfilling of fill sequence 9-12 has been completed (CEA Sheet 5). Waste filling will continue incorporating areas of both Sections 7 and 8. As the Operations Fill Sequence Drawings show, filling will proceed to bring the sideslopes of Sections 7, 8, and 9 to their design slope of 3H:1V slopes as shown on fill sequence 13-18 (CEA Sheets 6 and 7). The filling of Section 7, 8, and 9 areas will bring the combined areas to an approximate elevation of 285 feet as shown on Sheet 8.

Construction of Section 10 will be completed prior to the completion of waste filling in Section 9. Construction plans and specifications will be prepared and submitted to the FDEP for approval well in advance in order to place waste concurrently in Section 9 and Section 10.

K.2.g. Waste Compaction and Application of Cover

Waste will be placed at the top or bottom of the working face and spread toward the bottom or top, respectively. Waste will be spread in approximately 2-foot-thick layers and compacted with a minimum of three to five passes of the landfill compactor. The spreading and compacting is

intended to be a continuous operation. A minimum in-place waste density of 1,000 pounds/cubic yard (lb/cy) will be achieved.

A minimum of 6 inches of compacted initial cover or tarp will be placed over the waste at the end of each operation day. Auto shredder residue, alone or mixed with soil, recovered screen material street sweepings, and solid waste combustor ash residue may be used as initial cover as allowed by 62-701.500 (7)(e). Before the working face between landfills is moved, the area that will remain inactive will be covered with compacted initial cover, soil, or a mixture of 50 percent unscreened wood mulch and 50 percent soil (no ash), with sufficient thickness (minimum 6 inches) to prevent erosion and the mixing of leachate with stormwater. A minimum of 1 foot of intermediate cover, in addition to the 6-inch initial cover, will be applied and maintained within 7 days of cell completion if additional solid waste will not be deposited within 180 days of cell completion.

When landfilling operations begin again in areas with intermediate cover, the intermediate cover (free of waste) will be stripped from the surface (upper 12 inches) and reused over other areas needing intermediate cover. The stripped intermediate cover will be pushed ahead and used as perimeter berms around the active working face area. The intermediate areas are graded to promote drainage (minimum 2 percent slope) and seeded to prevent erosion.

K.2.h. Operation of Leachate, Gas and Stormwater Controls

See Sections K.8, K.9, and K.10 for leachate, gas, and stormwater controls, respectively.

K.2.i. Water Quality Monitoring

K.2.i.(1) Phases I-VI

Water quality monitoring for Phase I-VI is included in Section L of the Permit Renewal Application, dated June 2013.

K.2.i.(2) Capacity Expansion Area

Water quality monitoring for Sections 7, 8, and 9 is included in Section L of the Permit Renewal Application, dated June 2013.

K.2.j. Leachate Collection and Removal System Maintenance

Refer to the current LMP Report in Appendix C of the 2013 Operation Permit Renewal Application.

K.3 OPERATING RECORD

The operating record will be maintained on site in the Administration Building or at the SWMG office. The operating record will be accessible to the Facility operation personnel and will be available for inspection by FDEP. The records include the following:

- Waste reports
- Operation permits
- Construction and closure permits including any modifications
- Monitoring results, such as water quality testing
- Notifications to FDEP
- Engineering drawings
- Training certifications as required by Chapter 62-701.320(15), FAC

K.4 WASTE RECORDS

The amount of solid waste received at the landfill will be weighed and recorded in tons per day in accordance with Rule 62-701.500(4), FAC. Waste reports will be compiled monthly and kept on site with the operating record. Waste will be listed by the following types and the amount of tons received will be recorded:

- Processable, to include
 - Household waste
 - Treated biomedical waste
- Non-processable, to include
 - Industrial waste
 - Industrial and domestic sludge (biosolids)
 - Air/water treatment sludge
 - Commercial waste
 - Incinerator by-pass waste
 - Agricultural waste
 - Ash
 - Waste tires
 - Construction and demolition debris
 - Asbestos
 - Yard trash

All records will be retained at the SWMG administration office. Report types include daily, month-to-date, and year-to-date totals of waste received from the various haulers. The records will be available to the FDEP for review.

K.5 ACCESS CONTROLS

The perimeter fence and berms around the Facility prevent the entry of livestock, protect the public from exposure to potential health and safety hazards, and discourage unauthorized entry or uncontrolled disposal of unauthorized materials. 'No trespassing' signs are also posted along the perimeter fence. The SWMG and Contractor personnel will inspect the premises daily. The gate at the Facility entrance and all other gates will be kept locked at all times the landfill is closed, and the Contractor will provide security personnel to guard the Facility during non-operating hours.

K.6 LOAD-CHECKING PROGRAM

The SWMG has established a random-load-checking program as referenced in Part K.2.c to detect and prevent disposal of unauthorized wastes into the landfill. In addition, site access control discourages the disposal of unauthorized and hazardous wastes. A sign at the entrance of the Facility explains the types of waste prohibited at the landfill.

In accordance with Rule 62-701.500(6)(a), FAC, a minimum of three random loads will be checked at the active working face(s) each week. The selected drivers will be directed to discharge their loads at a designated location next to the working face. If any unauthorized special waste (i.e., lead-acid batteries, used oil, yard trash, white goods, and whole tires) is found during the random inspection or as part of routine operations, the waste will be segregated and removed from the site for recycling as described in Part K.2.c. These special wastes will be stored next to the working face and removed from the site within 30 days.

If an unauthorized waste (i.e., hazardous, PCBs, untreated biomedical, or free liquid) is found, the generator of the waste, if known by the driver, will be contacted to determine the waste source. Either the hauling company or the generator of the waste will be directed to remove the unauthorized waste. The random load inspections will be documented on a report form which includes the date and time, name of the hauling company and the driver of the vehicle, the vehicle license number, the source of the waste or generator, and any observations or notes made by the inspector (Appendix C). The inspector will identify and note all unauthorized waste found during the random load inspection, estimated quantity, and the action taken. The inspector will sign the inspection form that will be retained at the Facility.

If the waste owner cannot be identified, the waste will be evaluated by Contractor personnel in charge. The waste will be isolated and contained and will not be moved until the waste is determined to be acceptable. If it is determined that the waste is not suitable for disposal, the SWMG will be notified for additional assessment and testing of the waste. Subsequently, a record of the decision will be placed into the daily operations file for the Facility.

If any regulated hazardous waste is discovered in a random load check or is identified by an operator or spotter, the Landfill Manager and the FDEP will be notified immediately as well as the generator or hauler, if known. The Landfill Manager is trained in the proper procedure to follow including notifications. If the generator or hauler is not known, the SWMG will be responsible for disposing of the hazardous waste at a properly permitted Facility. The hazardous waste will be isolated and restricted from access until it is removed from the landfill by a qualified hazardous waste contractor. Hazardous wastes will be removed from the site within 24 hours.

As required in Rule 62-701.320(15), FAC and discussed in Part K.1, inspectors, scale-house attendants, equipment operators, and landfill spotters will be trained to identify unacceptable wastes and hazardous wastes.

K.7 SPREADING AND COMPACTING WASTE

All loads coming into the Facility, including small-volume unloading containers, will be delivered to the working face daily. To preserve the prepared base area and to protect the leachate collection system, traffic will be prohibited to operate directly on the chipped tires overlying the drainage layer. Traffic will only be allowed to maneuver on top of the compacted and covered waste. Therefore, the initial lift of all new disposal areas will be accessed by vehicles from the top of the working face. The waste will be spread and compacted from the top, keeping all heavy equipment off the prepared base.

For all subsequent lifts, the waste placement will vary depending on field conditions. Some lifts will be built from the bottom of the active working face. At the discretion of the operator, waste will also be placed from the top of the active working face and spread toward the bottom. Waste will be placed against the covered working face of the previous day's waste. The first cell will act as a means of access and as a berm to guide the placement of waste for the remaining cells. See Part K.2.g for additional information on waste compaction.

The following guidelines will provide an efficient and environmentally sound method of operation for the Facility:

- Portable litter fencing will be placed at the working face where needed to reduce windblown litter.
- Cracks or eroded sections in the surface of any filled and covered area will be repaired and a regular maintenance program will be followed to eliminate pockets or depressions that may develop as waste settles.
- If 12 inches of intermediate cover (free of waste) has been placed over a partially filled area, it will be removed, reused, and stockpiled for later use before the placement of a new lift.

- Tire chips, ash residue from incinerated MSW, tarps, soil, or a mixture of soil/mulch may be used for initial cover. Stormwater runoff will not be allowed from waste-filled areas covered with tire chips or ash. Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas that have no exposed waste and have been adequately covered with a tarp or at least 6 inches of compacted soil (or a mixture of soil/mulch) which is free of waste and has been stabilized to control erosion.
- Sufficient cover material will be stockpiled near the working face to provide an adequate supply for initial cover operations. In some areas, daily stockpiling may not be necessary because of the proximity of the borrow area.

K.7.a. Waste Layer Thickness and Compaction Frequencies

Landfill personnel will direct all incoming waste to be unloaded at the toe or top of the working face. Waste will be spread in approximately 2-foot-thick layers and compacted with a minimum of three to five passes of the landfill compactors. The spreading and compacting is intended to be a continuous operation, and waste will not be placed in a layer until the previous layer is compacted.

K.7.b. First Layer Thickness

For Phases I-VI and Sections 7, 8, and 9, the initial waste layer has been placed. To protect the integrity of the leachate collection system of the landfill, traffic and heavy equipment were not allowed directly on the sand drainage layer.

The procedure for filling and compacting the first layer of waste for future permitted sections at the Capacity Expansion Area will protect the integrity of the liner and leachate collection system. Traffic directly on the protective layer will be prohibited, and the first lift will be accessed by vehicles from the top of the working face. An initial 4-foot-thick lift of selected waste will be placed over the protective layer. The selected waste will be MSW and ash not containing large rigid objects and will be spread and compacted from the top of the working face.

K.7.c. Slopes and Lift Depth

The working face slope will be maintained at a slope no steeper than 3H:1V. Each cell will be constructed in a horizontal lift to an approximate height of 8 to 12 feet, with the maximum height as shown on the Drawings provided separately with the Phases I-VI and the Capacity Expansion Area (Sections 7, 8, and 9) Operation Permit Renewal Application as shown in Appendix E.

K.7.d. Working Face

Cells will be constructed with slopes no steeper than 3H:1V, and a working face will be maintained to provide unhindered vehicle access to the working face while minimizing exposed areas and unnecessary use of cover material. The working face may move from month to month from Phases I-VI to the active cells at the Capacity Expansion Area. The working face will be bermed with soil or a mixture of 50 percent unscreened wood mulch and 50 percent soil (no ash). The berm will be constructed to prevent the mixing of leachate with stormwater.

K.7.e. Initial Cover Controls

At the end of each working day, the waste will be covered with a 6-inch lift of compacted cover material such as soil, a mixture of 50 percent unscreened wood mulch and 50 percent soil (or ash), ash, chipped tires, or tarps. These cover materials will provide vector control, mitigate windblown litter, reduce the potential for fire, and reduce odors and moisture infiltration into the waste. The initial cover material will be spread over the exposed waste and, with the exception of tarps, compacted by the equipment used to spread the cover (i.e., bulldozer or scraper). The initial cover material will not be removed before placement of successive lifts of waste, with the exception of tarps, which will be removed before placement of successive lifts. Any remaining litter and cleanings from equipment will be placed at the bottom of the completed cell and covered.

Before the working face between landfills is moved, the area that will remain inactive will be covered with compacted cover (free of waste), soil, or a mixture of 50 percent unscreened wood mulch and 50 percent soil (no ash), with sufficient thickness (minimum 6 inches) to prevent erosion and the mixing of leachate with stormwater.

K.7.f. Initial Cover Frequency

At the end of each day's operation, the active landfill working face will be thoroughly compacted, and cover material will be spread and compacted to a depth of 6 inches over the day's entire working face and sideslopes. Initial cover material is discussed in Part K.7.e. If needed, the portable barriers that define the working face will be moved to the positions required to define the next day's operation.

The Facility is equipped to excavate and haul cover materials from on-site borrow areas to the working face. Normally, an elevating scraper is used to excavate and haul cover material from the borrow area to the working face where it can be spread by a scraper or bulldozer.

When using a mixture of soil and mulch the following process will be used:

1. The area to be excavated will be identified in advance. The area used for mulch mixing will not be larger than 15 acres.

2. A 4-foot layer of mulch will be placed over the designated excavation area.
3. The mulch placed in a given area will not be allowed to remain in place longer than 2 years.
4. As the area is excavated, the excavator will take bucket loads of the mulch layer plus 4 feet of soil, mixing the load as it is placed in the dump trucks.
5. The trucks will deliver the load to the working face. As the loads are deposited, additional mixing will occur.
6. The soil/mulch mixture will be spread over the working face using a bull dozer, causing additional mixing.

K.7.g. Intermediate Cover

Intermediate cover will be placed and maintained over cells which will not receive additional solid waste or final cover within 180 days as required in Rule 62-701.500(7)(f), FAC. Recovered screen material or a mixture of soil and ground or chipped yard trash provided that soil makes up at least 50 percent by volume of the mixture may be utilized as intermediate cover. The working face will be bermed to reduce stormwater impacts. Sideslopes will be well maintained to minimize erosion. Intermediate cover material will be placed over the landfill surface within 7 days of cell completion if additional waste will not be placed within 180 days. Intermediate cover will be placed to a minimum compacted thickness of 12 inches on top of the 6 inches of compacted initial cover. On-site material will be used for intermediate cover. Specifically, phosphatic waste clays available on site will be mixed with sand and used for intermediate cover.

To conserve the soil/clay mix, a portion of the intermediate cover will be removed immediately before placement of additional solid waste on top of the lift or before placement of additional waste. The soil/clay mix (free of waste) will be stripped and reused as intermediate cover material. The stripped intermediate cover will be pushed ahead as needed for the perimeter interceptor berms constructed around the active working face area. The intermediate cover areas will be graded to promote drainage (minimum 2-percent slope) and seeded to prevent erosion.

K.7.h. Final Cover

K.7.h.(1) Temporary Final Cover

A temporary final cover consisting of a soil layer will be installed over cells in Phases I-VI and/or the CEA which will not receive additional solid waste. The temporary final cover will consist of a 12-inch layer of soil with a hydraulic conductivity of 1.0×10^{-5} cm/sec. Vegetative cover will be placed on areas which have reached interim final grade in Phases I-VI. These areas will not receive additional waste until the end of the consolidation period before waste can be filled on top of the area. In CEA Sections 7, 8, and 9, the temporary final cover will be installed

on the south and east side slopes as shown on the drawings. As required, temporary drainage berms and downchutes will be placed at the working face to control and direct stormwater runoff away from disposal areas.

K.7.h.(2) Final Cover

When portions of the Facility are brought to design grades, final cover will be placed over the areas that have attained final elevation within 180 days in accordance with Rule 62-701.500(7)(g), FAC. Vegetative cover will be established. The final cover system and sequence for final cover placement will be submitted with the application for closure at least 90 days before the partial closure of the sideslopes.

K.7.i. Scavenging and Salvaging

Except for such operations that are conducted as part of a recycling program, scavenging and salvaging are not permitted at the Facility. If the volume of recyclable goods is sufficient, as determined by the Landfill General Manager, those items may be separated from the waste which is to be disposed.

K.7.j. Litter Policing

If necessary, portable litter fences will be placed downwind of the immediate working area to confine most of the windblown material. Litter around the site and the entrance roadways will be collected regularly and picked up within 24 hours, in accordance with Rule 62-701.500(7)(i), FAC. In addition, the Contractor maintains a litter crew to provide litter control on State Road (SR) 39 from the Lithia-Pinecrest intersection to CR 672 and on CR 672 to Balm-Boyette Road.

K.7.k. Erosion-Control Procedures

The Facility fill sequence and the drainage facilities have been designed to minimize erosion of landfill sideslopes and washout of adjacent areas. The landfill surface will be inspected daily for cracks, eroded areas, and depressions in the landfill surface. Corrective action will be implemented within 7 days of detection. In areas where standing water develops, the area will be filled, compacted, and graded to provide positive drainage. Where the standing water problem cannot be corrected by proper grading, temporary drainage ditches will be constructed to drain off the standing water. Intermediately covered areas or other areas that discharge to the stormwater management system and which exhibit significant erosion will be repaired as follows:

- If greater than 50 percent of the soil cover material has eroded, the area will be repaired within 7 days.
- If waste or liner is exposed, the area will be repaired by the end of the next working day.

K.8 LEACHATE MANAGEMENT

Please see the current LMP (Appendix C of the 2013 Operation Permit Renewal Application).

K.9 GAS MONITORING AND MANAGEMENT PROGRAM

K.9.a. Gas Monitoring

SWMG personnel shall monitor and record landfill gas (LFG) reading quarterly at the perimeter LFG monitoring wells and in the Administration, LTRF, and Maintenance buildings. The locations of the existing LFG monitoring points are included in Appendix F. The ambient air and areas with slab penetration (areas with plumbing for water and drains) will be monitored inside these structures. The monitoring will be conducted for the Lower Explosive Limit (LEL) of methane using a GEM-500 Infrared Landfill Gas Analyzer (or equivalent). The probes will not be purged. Once the GEM is connected to the sampling port, the valve will be opened and the GEM pump will be started. The GEM reading will be observed and the value will be recorded.

When personnel must enter confined spaces or areas where dangerous gases may be present, the SWMG will follow the requirements in the “Code of Federal Regulations Title 29, Part 1910.146 OSHA” and the safety guidelines outlined in “A Compilation of Landfill Gas and Field Practices and Procedures” prepared by the SWANA Landfill Gas Division Health and Safety Task Force.

If methane is detected in concentrations greater than the regulatory limit (100 percent of the lower explosive limit at the property boundary or 25 percent of the lower explosive limit within structures), the SWMG will evaluate potential measures to correct the exceedances. If an unacceptable concentration of methane is detected in a monitoring location (i.e., a well or an on-site structure), the SWMG will immediately take appropriate actions to protect human health. The SWMG will notify FDEP and will re-monitor the location during each of the next 3 days. During this time the SWMG will evaluate potential causes of the exceedance and will implement procedures to remedy the situation if exceedances persist after the third day. Within 7 days of the initial exceedance, the SWMG will submit a remediation plan to FDEP in accordance with Rule 62-701.530(3)(a).

Landfill Gas Monitoring Points	
I.D.	Probe/Building Location
LFG-1	Property boundary probe: South property boundary
LFG-2	Property boundary probe: Southwest property boundary
LFG-3	Property boundary probe: Northwest property boundary
LFG-4	Property boundary probe: North property boundary
SP-1	Scalehouse/Administration Building
SP-2	Scalehouse/Administration Building
SP-3	Scalehouse/Administration Building
SP-4	Scalehouse/Administration Building
SP-5	Scalehouse/Administration Building
SP-6	Scalehouse/Administration Building
SP-7	Scalehouse/Administration Building
SP-8	Scalehouse/Administration Building
SP-9	Maintenance Building
SP-10	Maintenance Building
SP-11	Maintenance Building
SP-12	Maintenance Building
SP-13	Leachate Treatment Facility Building
SP-14	Leachate Treatment Facility Building
SP-15	Leachate Treatment Facility Building

As described in Part K.7, the SWMG has a program for the placement of cover, which is effective for controlling disease, vectors, objectionable odors, and litter. No objectionable odors have been detected or reported by adjacent property owners. At least quarterly, or more frequently if necessary, qualified personnel from the SWMG will assess the presence of ambient objectionable odors at the perimeter monitoring points shown in Appendix F. If objectionable odors are detected at the property line, the SWMG will implement an odor-monitoring program as required by Rule 62-701.530(3)(b) FAC.

K.9.b. Landfill Gas Collection System

The design of the Landfill Gas (LFG) collection system and the subsequent operation is in accordance with the federal New Source Performance Standards (NSPS) for municipal solid waste landfills (Subpart WWW) and Subpart AAAA of the National Emission Standards for Hazardous Air Pollutants (NESHAP), which dictates the operational procedures for the GCCS.

Landfill gas that is generated in the landfill is currently collected by the gas collection and control system (GCCS) in Phases I-VI and Sections 7 and 8. Permit No. 35435-016-SC/08 details the requirements of the GCCS. An intermediate permit modification was approved for the expansion of the GCCS into Section 9. An expansion of the GCCS in Section 9 was completed in June 2013. The design parameters for the GCCS can be found in the GCCS Design Plan for the SCLF dated July 11, 2008 by SCS Engineers. The SCLF continues to remain in compliance with the GCCS operation and Title V permit requirements. The GCCS in the area of the sinkhole was repaired with a temporary above grade header. The final remediation step for the sinkhole at the SCLF includes repair of the clay liner. During this construction, the GCCS impacted by the sinkhole will be repaired with below grade piping and installation of new vertical wells.

The facility maintains all operational and manufacturer procedural documentation for the blower, flare, control devices, and LFG system components on site in the “LFG Specialties User Manual for Utility Flare System Unit 2162”, dated September 2009.

K.9.c. Daily Start-Up and Shutdown Procedures

The system is designed and permitted to run continuously. As part of the daily inspection conducted on the landfill, the flare is visually inspected for operations but no specific start-up or shut down procedures are performed daily. If the system shuts down, it is designed to attempt an automatic restart three times. If these three automated restarts are unsuccessful, then the system remains shut down and calls a designated landfill employee via the system’s autodialer; this employee is then informed that the system is shut down. When the system shuts down or is shut down for maintenance, it is recorded in accordance with the facility’s Startup, Shutdown, and Malfunctions (SSM) plan required by NESHAP. This plan discusses in detail what actions are taken to start up or shut down the system. The SSM plan is included in Appendix G.

K.9.d. Operating and Maintenance Procedures for Vertical Wellhead and Horizontal Collectors

The vertical wellheads are operated in accordance with the federal New Source Performance Standards (NSPS) for municipal solid waste landfills (Subpart WWW) and Subpart AAAA of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

As required by 40 CFR 60.756, each well or collector that is under vacuum and connected to the GCCS is monitored every month. At the time of the monitoring, the wellhead is checked for leaks at the fittings and hoses and visually inspected. Once monitored, the data collected is reviewed either at the time of collection or shortly thereafter (within 5 days maximum, per rule). Based on a review of the data, the wellhead may or may not be adjusted. If the readings collected meet the NSPS requirements for pressure, temperature, and oxygen, then no adjustment is required. If the requirements are not met and an exceedance occurs, then an adjustment/remedial action are required within 5 days. This reading can be taken the same day as the adjustment. If the re-check now shows a compliant reading, monitoring is done for the month; if not, following

adjustments, a re-check is required by the NSPS rule within 15 days following the day of initial exceedance.

The matrix below is used to determine the adjustment/remedial action to be taken based on the exceedance observed.

Wellhead reading in question	Adjustment Required per Rule	Recommended Adjustment
Oxygen above 5%	Yes	Decrease vacuum at wellhead. Re-check all fittings and connects for possible leaks.
Pressure above 0.0 in w.c.	Yes	Increase vacuum to wellhead by opening valve slightly. Check available system vacuum to insure vacuum is available. If no vacuum is available, isolate area of vacuum loss.
Methane below 35%	No	Reduce vacuum at wellhead as long as pressure stays negative.
Methane above 58-59%	No	Increase vacuum to wellhead by opening wellhead valve.
Temperature above 131°F	Yes	Reduce vacuum to wellhead and make sure adequate cover exists around wellhead.

All collection devices connected to the GCCS are operated in this manner. If maintenance is required on an individual well or wellhead, it will be discovered during the monthly monitoring and maintenance will be performed on the devices as needed. Monitoring is also performed at the blower and flare inlets and recorded monthly. Additional operation information as it pertains to the operation of the wellheads can be found in Section 5.3 of the GCCS Design plan submitted to the FDEP Air Division on July 11, 2008.

K.9.e. System Readings and Wellhead Adjustments

Refer to Section K.9.d.

K.9.f. Procedures for Evaluation of the Performance of the System

Refer to Sections K.9.d. for well and horizontal collector evaluations. The GCCS is designed to remove LFG from the landfill and combust the LFG to avoid LFG rising through the landfill and

entering directly into the atmosphere or migrating off site through the ground. To ensure performance of the system, surface emissions monitoring (SEM) occurs on a quarterly basis per 40 CFR 60 Subpart WWW to ensure that the system is working and that no LFG is being vented directly to the atmosphere through the landfill's cap. Quarterly LFG perimeter probe monitoring also occurs to ensure that the no LFG is traveling out of the landfill. These required monitoring events, along with the monthly monitoring, ensure that the system is performing as required. All instances where any of these monitoring events leads to readings not in compliance with the regulations are reported in the NSPS semiannual reports submitted to the FDEP Air Division for the site in July and January of every year. The quarterly perimeter probe monitoring is submitted quarterly to the FDEP Solid Waste Division per the facility's operating permit. Meeting these regulatory requirements ensures that the system is performing as required.

K.9.g. Procedures for Isolation of Parts of the System in the Event of Damage, Repair, or Maintenance of Parts of the System

The GCCS has been designed so that portions of the GCCS can be isolated from the remainder of the system with the use of isolation valves. This design allows for the majority of the system to remain operational while one section of the system is maintained or repaired. There are nine isolation valves located on the LFG header that can close off a vacuum to an area of the landfill for maintenance to be performed on the header, lateral, or wellhead. These valves have been positioned to allow for isolation of Phases I-VI from Sections 7, 8 and 9, and for Phases I-VI to be isolated into four separate areas. Similarly, there are eight valves on the air supply line and seven valves on the condensate force main that allow for isolation of the system without having to shut down the flare or support systems. Additional valves will be installed as the GCCS is expanded.

Specific procedures for performing isolation of the system will be performed as maintenance or damage occurs or as required to assure the performance of the system is remaining in compliance with NSPS and NESHAP standards.

K.9.h. Condensate Management System Monitoring and Maintenance Procedures

The majority of the condensate management system drains into the leachate management system for the landfill and will be handled along with the current leachate management system. The remainder of the condensate management system between AR-8, AR-1 and AR-7 all drain to CS-1. The pneumatic pump in CS-1 is checked daily to assure operation during the landfill's daily inspection. There are no specific maintenance practices for sump CS-1 as the system performs automatically on a demand basis. Should the pump in CS-1 malfunction, the condensate would build up in the sump and ultimately affect the vacuum to the well field and result in an automatic shutdown due to low flow or methane concentration. The system would then be diagnosed and the location of the vacuum blockage identified and repaired. Should the pump be required to be removed for an extended period of time, the sump is equipped with a port that can be used to pump out the sump above grade with a portable pump, which would allow the system to continue to operate. Under normal operating conditions, the pump in CS-1 will be

serviced according to manufacturer's recommendations as described in the pump's manual. A copy of the pump manual is kept at the administrative building. The condensate from CS-1 is pumped into the leachate management system and is managed under the facility's current leachate management plan. Future expansions will utilize U-traps and sumps to manage condensate. Condensate will be routed to the leachate collection system for all expansions.

K.9.i. Description of Safety Protocols and Considerations Relating to Subsurface Landfill Fires

The majority of subsurface fires occur in a landfill when excess oxygen is introduced into the waste mass. In consideration of this fact, the GCCS is monitored monthly and was designed to minimize this effect. The introduction of oxygen can occur around a landfill gas well if appropriate cover material is not placed and the vacuum pulls oxygen into the system through the ground surface. The LFG extraction wells have all been designed with 20 feet of solid pipe or caisson sleeve extending below grade to avoid pulling oxygen through the wells. The horizontal collectors are located near the surface of the waste mass and therefore must be operated under very small vacuum or no vacuum until adequate waste is in place on top of the collectors to avoid introducing oxygen into the landfill. The operational procedures for the horizontal collectors are further described in Section 5.3 of the GCCS Design plan submitted to the FDEP Air Division on July 11, 2008. The monthly monitoring is also designed to ensure that the potential for a subsurface fire is minimized as described in 40 CRF 60.755 (5):

60.755(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in §60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

If the landfill personnel detect a temperature above 131°F in any of the LFG extraction wells, remedial action will be taken to lower the temperature in the well by decreasing or eliminating vacuum to the well, applying additional cover material in the area to eliminate the potential for oxygen intrusion, and monitoring the surrounding wells to ensure there is not a rise in the overall temperature of the waste mass in the area. Subsequent LFG well re-checks and monthly monitoring events will determine if the actions taken were successful or additional remedial activities are required.

K.10 STORMWATER-MANAGEMENT SYSTEM

K.10.a. Leachate Reduction

K.10.a.(1) Stormwater Diversion

K.10.a.(1).1 Site Stormwater System

The stormwater system was designed to transport the maximum expected flows from a 24-hour, 25-year rainfall event and minimize the collection of standing water within the disposal areas. To efficiently collect and transport the stormwater runoff away from the disposal areas, the stormwater system will be maintained in good condition, with the proper slopes and free from obstructions. Erosion control measures and corrective action are described in Part K.7.k of the Operation Plan. In addition, the design maintains conformance with the site's Southwest Florida Water Management District (SWFWMD) Stormwater Permit (a copy was submitted in Volume 3 of the Construction Permit Application for the Capacity Expansion Area, Section 7, September 2002). The major stormwater component designs and operations are as follows:

- Interior Stormwater Separation berms are generally designed to be 3 feet high and 3 feet wide across the top with sideslopes of 3H:1V. The separation berms divide the contributing runoff areas to facilitate the collection and handling of stormwater as well as providing separation from leachate.
- Sideslope swales were designed to convey stormwater flow from the sideslopes to the downchutes as shown on the drawings. Sideslope swales will be constructed where needed and as shown on the sequence drawings provided separately with the Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9).
- Downchutes constructed on the side slopes of the landfill will transport stormwater flow to the perimeter stormwater ditches.
- The perimeter stormwater ditches collect surface water runoff around the site, prevent offsite drainage from entering the landfill area, and drain runoff to the appropriate stormwater ponds and sedimentation basins located around the site.

K.10.a.(1).2 Phases I-VI

The Phases I-VI stormwater collection system directs stormwater runoff from the landfill and surrounding sub-shed areas and into stormwater sedimentation basins and detention ponds. The sedimentation basins are designated A-2, A-3, B, C, 2, 3, 4, and 8. The ponds are designated as Ponds A-1, B, C, D, and E, and an evaporation area. As the Phase I-VI areas are filled with waste, daily and intermediate cover (clean fill) is applied over the waste which promotes drainage away from the waste material. This minimizes the amount of water that is allowed to infiltrate into the waste. Stormwater that comes in contact with the waste in the active working area is considered leachate and will not be allowed to run off into the stormwater management

system. The size of the working area will be kept to a minimum to minimize leachate and berms around the working area will separate stormwater from leachate. The runoff will be directed toward downchutes that will be conveyed to one of the basins.

K.10.a.(1).3 Capacity Expansion Area

The Capacity Expansion Area stormwater collection system directs stormwater runoff from the landfill and surrounding sub-shed areas and into the existing stormwater sedimentation basins and detention ponds. The receiving basins are designated as Sed C and Sed D, which flow into Ponds C and D, respectively. As the Capacity Expansion Area, currently Sections 7, 8 and 9, is filled with waste, it will then be covered with daily and intermediate cover (clean fill) to allow drainage away from the waste. This minimizes the amount of water that is allowed to infiltrate into the waste. Stormwater that comes in contact with the waste (now considered leachate) in the active working area will not be allowed to run off into the stormwater management system. The size of the working area will be kept to a minimum to minimize leachate. Berms around the working area will separate stormwater from leachate. The runoff will be directed toward downchutes and transported via stormwater ditches to Sed C and Pond C. The undeveloped areas of the Capacity Expansion Area will collect and drain stormwater runoff to Sed D and Pond D.

K.10.a.(1).4 Stormwater Management System Improvements

Improvements to the Stormwater management System (SWMS) at the SCLF were completed in March 2012, see figure in Appendix H. Improvements to the existing SWMS as part of the Stormwater Improvements Project consisted of the following:

1. Conversion of dry retention Basins A, B and C from underdrain systems to wet detention systems (Basin C was converted from dry retention with underdrain system to wet detention system as part of Section 9 construction in April 2008).
2. Restructuring of evaporation areas located north of the scale house and WMIF's maintenance building to increase attenuation with a wet pool design. New Ponds A-1, A-2 and A-3, and existing Basins F and G are interconnected and function as one system that ultimately discharges through modified control structures in Pond B. New Ponds A-2 and A-3 increase retention times of runoff from Phases I-VI with treatment provided in Pond B.
3. Sedimentation ponds between Phases I-VI and the CEA, SED-2, SED-3, SED-4 and SED-8, were constructed provide additional settling areas and reduce sediment transport into Basin D. These sedimentation swales and ponds provide some treatment, but most of the treatment will continue to be provided by the existing Basin D.

K.10.a.(1).5 Other Site Stormwater Basins

Several other basins located around the site collect stormwater runoff; however, they do not collect runoff from disposal areas. The other basins are mentioned in this plan for informational

purposes. Basin E and Retention Ponds F and G collect runoff from the scalehouse. Retention Pond H collects runoff from the LTRF.

K.10.a.(2) Rain Tarps

Rain tarps will be used to cover open areas (areas that have not received waste material yet but are connected to the leachate collection system) to keep stormwater out of the leachate collection system. Water that has collected on top of the rain tarp is considered stormwater and can be pumped to the appropriate stormwater basin that was designed for that area. Before placement of waste, all rain tarps will be removed.

K.10.a.(3) Stabilized Slopes

As filling progresses, the top and side slopes that will not receive additional solid waste for 2 or more months will be stabilized. First, compacted fill will be placed over the waste material to keep stormwater from infiltrating into the waste and to promote runoff. The slopes can then be stabilized with vegetative cover, seed, and mulch, or rain tarp covers. Exterior side slopes that are constructed to design grade and interior side slopes that will not receive waste for longer than 180 days will be covered with intermediate cover and either vegetative cover or hydroseed.

K.10.a.(4) Closure

As disposal areas reach final elevations as discussed in Part K.7.h, areas may have a final or temporary final cover placed over the waste material that will provide a low permeability cover over the waste and thus minimize long-term infiltration of stormwater into the waste materials as described in Section K.7.h.(1). As stormwater infiltration is cut off, water within the waste will drain to the leachate collection system within the lined area of the landfill. Since infiltration of stormwater will be minimal, the amount of leachate resulting from stormwater infiltration will reduce over time.

The methods described above represent the current plan; however, as operations continue, they may be modified if alternate methods prove more efficient or allow a higher percentage of stormwater runoff, thus resulting in greater leachate minimization.

K.11 EQUIPMENT AND OPERATION

Landfill operation was discussed in Part K.2.

K.11.a. Operating Equipment

The landfill is typically operated with the following on-site equipment:

- Steel-wheeled compactors.
- Bulldozers.
- Self-propelled scraper.

- Water tank truck.
- Motor grader.
- Excavator.
- Several pickup trucks.
- Other miscellaneous construction and maintenance equipment.

Where appropriate, equipment is fitted with safety cabs and fire extinguishers. The Contractor is required to have back-up equipment available within 24 hours.

K.11.a.(1) Equipment Care

Routine preventive maintenance minimizes equipment downtime and increases equipment service life. Therefore, the appropriate operation and maintenance (owner's) manual should be consulted. However, applicable maintenance activities implemented at the site include:

- A routine inspection program;
- Routine lubrication; and,
- Maintenance records up-keep.

Minimal equipment washing may be performed on lined areas of the landfill that do not have intermediate or final cover. The activity is exempt from industrial wastewater permitting since the wash water is collected by the leachate collection system.

K.11.b. Reserve Equipment

Sufficient backup equipment will be provided on site for equipment breakdowns and downtime for normal routine equipment maintenance. Pre-arrangements with contractors and rental equipment dealers will be made to furnish equipment on short notice in the case of a major equipment failure. The Reserve Equipment Agreement is presented in Appendix B.

K.11.c. Communications Equipment and Personnel Facilities

Telephones are located at the Administrative and Maintenance Buildings for use in emergencies. Cellular telephones and two-way radios are also used. The Administration Building is equipped with water supply, toilet facilities, emergency first-aid supplies, and electricity. The building also provides shelter for employees in case of inclement weather. The Maintenance Building is equipped with spare parts, tools, equipment, and electrical services for operations and repair.

K.11.d. Dust Control

K.11.d.(1) Phases I-VI

Dust control outside of the landfill will be provided by applying water sprayed from a water tank truck and will be applied to the unpaved access roads as required to control dust generation. Dust control inside of the landfill will be provided by applying small quantities of leachate as described in Section 8.4 of the LMP.

K.11.d.(2) Capacity Expansion Area

Dust control outside of the landfill will be provided by applying water sprayed from a water tank truck and will be applied to the unpaved access roads as required to control dust.

Dust control inside the active waste disposal areas will be provided by applying small quantities of leachate from a spray bar mounted on the rear of a tank truck. Leachate will be sprayed onto the active fill areas of the Capacity Expansion Area, including the working face, which includes a berm to prevent runoff, and areas with the required 6 inches of initial cover as required to control dust.

Leachate used as dust control reduces the amount of fresh pond water that would otherwise be sprayed from tanker trucks to control dust on the active fill areas and provides for leachate evaporation. Leachate quantities used for dust control will continue to be reported in the leachate balance report submitted to the FDEP.

The SWMG will monitor the rate of application, soil moisture conditions, and the specific landfill areas used so that this leachate disposal method does not generate runoff. Spray bar leachate spraying will be applied under the following conditions:

- Leachate will only be sprayed on active-fill areas, including the working face that includes a berm to prevent runoff and areas with the required 6 inches of compacted initial cover.
- Leachate will not be sprayed on areas with intermediate or final cover, seeded or unseeded, or on areas that do not have a berm to prevent runoff.
- The maximum grade leachate will be sprayed on is 10H:1V slope. Areas within 150 feet of a 4H:1V or steeper sideslope will not be sprayed. Areas receiving leachate will be controlled at all times to prevent leachate runoff from entering the stormwater system.
- Leachate will not be sprayed during a rainfall event.

- The tank truck spray bar method maximizes evaporation. The application rate of leachate will be such that leachate does not accumulate on the landfill surface nor infiltrate quickly into the covered refuse. The main goal of this leachate disposal method is evaporation rather than recirculation of leachate.
- Leachate will not be sprayed at the end of the day on the initial cover of the working face or other areas. Spraying should be done early in the morning after any dew evaporates and continue until early afternoon or until all available areas have been used.

K.11.e. Fire Protection and Chemical Fires

A charged fire extinguisher is kept at the scalehouse, Administration Building, Maintenance Building, and with all landfill equipment all times. Excavated soil will be used for fire control at the working face.

If a load of waste delivered to the site is smoking or on fire, landfill personnel direct the load to the "hot spot" area (an area within the landfill footprint with at least 12 inches of soil cover) where appropriate fire fighting procedures are followed.

Water for fire protection will be supplied from the fire hydrant and intake structure located east of Phase II. A second fire hydrant and intake structure is located south of the LTRF. If there is a small fire at the working face, waste handling will continue on an alternate working face until the fire is suppressed. If a fire cannot be controlled using materials and personnel already on site, the Fire Department will be immediately contacted and the emergency response plan described in Part K.2.b will be followed. See Part K.2.b for spills and containment of contaminated water such as from fire fighting.

No chemicals will be accepted at the landfill. All waste coming through the scale house will be observed to eliminate unwanted chemicals capable of starting a fire. If a chemical accident does occur, the following steps will be taken:

- Call the local Fire Department (911).
- Contain the fire in a small area until Fire Department arrives. To eliminate inhalation of potentially toxic fumes, fight fire from the upwind side.
- Take appropriate steps to contain and control the fire to the greatest extent possible while protecting human life and health.

K.11.f. Litter Control Devices

See Part K.7.j of this Operation Plan.

K.11.g. Signs

A sign indicating the hours of operation is located at the Facility entrance. Signs indicating the name of the operating authority, charges for disposal, and identifying the asbestos disposal site are located near the scalehouse area. Traffic flow and speed limit signs are located at various points along the landfill access road.

K.12 ALL-WEATHER ACCESS ROAD

The access roadway enters the site from CR 672. An asphalt paved road travels north from CR 672 and turns east into the Facility. The access road location was selected to minimize impacts to residential and agricultural areas along CR 672. There is a gate on the access roadway at CR 672 and fencing to prevent unauthorized access.

The main access road is a 40-foot-wide roadway with a 24-foot-wide asphalt paved section and 8-foot-wide shoulders constructed within the 100-foot-wide right-of-way. The main access road is paved and extends into the Facility through the property entrance, runs along the south side of the site, and turns north along the east side of the Facility area.

Other on-site roadways will be required on a temporary and permanent basis to serve the borrow area and for maintenance and services of on-site facilities. A stockpile of materials to construct and maintain all-weather roads to the active working face is available on site.

K.13 ADDITIONAL RECORDKEEPING

Operation records, such as permits, plans, inspections and others, are maintained at the Facility and at the SWMG office. The active area of Phases I-VI will be surveyed monthly and the active area of the Capacity Expansion Area will be surveyed twice each year to calculate the volume used and to estimate the in-place density.

K.13.a. Permit Application Development

The SWMG keeps all information including site investigations, construction records, operation records, inspections, and permits.

K.13.b. Monitoring Information and Background Water Quality

The SWMG also keeps all monitoring records on groundwater, surface water, weather, and landfill gas. Copies are regularly submitted to the FDEP and the Environmental Protection Commission of Hillsborough County.

K.13.c. Remaining Site Life Estimates

An estimate of the remaining site life for the permitted area will be prepared annually for submission to the FDEP.

K.13.d. Archiving and Retrieving Records

Records of the landfill that are more than 3 years old will be available at the County's offices at 925 East Twiggs Street, Tampa, FL 33602.

APPENDIX A

TRAINING COURSES

CEUS Currently Approved by the Florida SWMTC for 1/2013-12/2015 for Solid Waste Operators/Spotter<http://landfill.treeo.ufl.edu/Courses.aspx>

Course #	Course Title	Course Provider	Landfill	Construction & Demolition Debris	Transfer Station	Materials Recovery Facility	Spotter	
203	8-Hour Initial Training Course for Spotters at Class I,II,III Facilities, Waste Processing Facilities, and C&D Sites	Kohl Consulting, Inc.	8	8	8	8	8	Initial
214	Spotter Training Plan for Land Clearing Debris Site	Wetland Solutions	8	8	8	8	8	Initial
219	8 Hour Initial Training for Spotter	Consolidated Resource Recovery, Inc.	8	8	8	8	8	Initial Restricted
248	Spotter Training for Solid Waste Facilities	University of Florida TREEO Center	8	8	8	8	8	Initial
442	24-Hour Initial Training Course for Landfill Operators of Class I, Class II, Class III, and C&D Sites	UF TREEO	16	16	8	8	4	Initial
443	16-Hour Initial Training Course for Operators of Transfer Stations and Material Recovery Facilities	UF TREEO	12	12	8	8	4	Initial
444	SWANA-Transfer Station Design & Operations	SWANA	8	8	8	0	8	Initial
462	8-hour Training Course for Spotters at Landfills, C&D Sites and Transfer Stations	UF TREEO	8	8	8	8	8	Initial
488	8-Hour Spotter Training Class I II III Landfill C&D Sites and Transfer Facilities	Safety Consulting and Training	8	8	8	8	8	Initial
582	16-Hour Initial Training Course for Transfer Station and MRF Operators	Kohl Consulting Inc	10	10	8	8	4	Initial
608	24-Hour Initial Training Course for Landfill Operators (Class I III and C&D Sites)	Kohl Consulting, Inc.	16	16	8	8	4	Initial
598	SWANA - Manager of Landfill Operations [MOLO] & Exam	SWANA	16	16	8	8	4	Initial
706	The SWM Combo Class: 24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites) with 16-Hour Initial MRF/TS Operator Class and 8-Hour Spotter Class <i>[Initial Only]</i>	Kohl Consulting Inc.	24	24	16	16	8	Initial
700	Construction and Demolition Debris Recycling and Management Workshop	FDEP & SWIX	4	4	4	4	4	
701	SWANA-FL 2012 Summer Conference	SWANA-FL	8	8	4	4	4	
702	2012 NAHMMMA Florida Chapter HHW/SQG Workshop and General Session	NAHMMMA-Florida Chapter	4	4	4	4	2	
703	16-hour Landfill Operator Refresher Course	Kohl Consulting Inc	16	16				
704	SWANA - WasteCon 2013	SWANA	8	8	7	5	2	
705	The Nitty Gritty of Native Vegetation on Landfills - eCourse	SWANA	1	1				
706	The SWM Combo Class: 24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites) with 16-Hour Initial MRF/TS Operator Class and 8-Hour Spotter Class <i>[Initial Only]</i>	Kohl Consulting Inc.	24	24	16	16	8	
707	OSHA 1910.120 HazWoper Refresher	Burt McKee	4	4	4	4	4	
708	Train-the-Trainer: How to Design & Deliver Effective Training	University of Florida TREEO Center	7	7	7	7	2	
709	Fundamentals of Slope Stability and Settlement for Solid Waste Disposal Facilities	University of Florida TREEO Center	16	16				
710	Basic Water and Wastewater Pump Maintenance	University of Florida TREEO Center	4	4				
711	Pumping Systems Operation and Maintenance	University of Florida TREEO Center	4	4				
712	Basic Electricity for the Non Electrician	American Trainco	2	2	2	2		
713	24-hour HAZWOPER OSHA Training course - online	University of South Florida - OSHA Training Institute	6	6	6	6	3	
714	8-hour HAZWOPER Refresher Training course - Online	Safety Unlimited Inc	4	4	4	4	4	

Course #	Course Title	Course Provider	Landfill	Construction & Demolition Debris	Transfer Station	Materials Recovery Facility	Spotter	
715	8-hour HazWoper Refresher - Operations Level	American Compliance Technologies	4	4	4	4	4	
716	8-hr Hazwoper OSHA Refresher	FDEP	4	4	4	4	4	
717	4-hour OSHA Hazardous Materials Awareness Level Course	Local Environmental Planning Council - District 5 and Citrus County Solid Waste Dept	4	4	4	4	4	
718	4-Hour Refresher Course for Spotters at Landfills, C&D Sites and Transfer Stations	University of Florida TREEO Center	4	4	4	4	4	
719	Waste Screening Refresher	University of Florida TREEO Center	4	4	4	4	4	
720	Hazardous Waste Regulations in Solid Waste Operations and Recycling	University of Florida TREEO Center	8	8	8	8	4	
721	Hazardous Waste Regulations in Solid Waste Operations	University of Florida TREEO Center	4	4	4	4	4	
722	Health and Safety for Solid Waste Workers [am]	University of Florida TREEO Center	4	4	4	4	4	
723	Health and Safety for Solid Waste Workers [pm]	University of Florida TREEO Center	4	4	4	4	4	
724	Health and Safety for Solid Waste Workers [am+pm]	University of Florida TREEO Center	4	4	4	4	4	
725	Solid Waste Workplace Health and Safety Training - 4 hours	University of Florida TREEO Center	4	4	4	4	4	
726	IS-00340 Hazardous Materials Management	FEMA Emergency Management Institute	4	4	4	4	4	
727	Is-271.a Anticipating Hazardous Weather & Community Risk, 2nd Edition	FEMA Emergency Management Institute	2	2				
728	Managing Composting Operations	Solid Waste Association of North America [SWANA]	16	16				
729	Personal Protection Equipment (PPE) and Safety Procedures	University of Florida TREEO Center	4	4	4	4	4	
730	Heavy Equipment Safety	University of Florida TREEO Center	4	4	4	4	4	
731	Supervisor Safety Training for Solid Waste Operations Staff	University of Florida TREEO Center	4	4	4	4	4	
732	Permit Required Confined Space Awareness	University of Florida TREEO Center	4	4	4	4	4	
733	8-hour OSHA HazWoper Annual Refresher	University of Florida TREEO Center	4	4	4	4	4	
734	40-Hour OSHA HAZWOPER Training Course	University of Florida TREEO Center	8	8	8	8	4	
735	Hazardous Waste Regulations for Generators	University of Florida TREEO Center	4	4	4	4	4	
736	Exposure to Bioterrorism and Airborne Pathogens	University of Florida TREEO Center	6	6	6	6	4	
737	Bird and Wildlife Management for Utilities	University of Florida TREEO Center	4	4	4	4	2	
738	Beyond 40% - Florida's Pathway to Sustainability"	Solid Waste Association of North America [SWANA] + Recycle Florida Today [RFT]	6	6	6	6	2	
739	Getting Back to Basics with Landfill Gas	University of Florida TREEO Center	8	8			4	
740	Is-632.s Introduction to Debris Operation	Emergency Management Institute	2	2	2	2	2	
741	SI:300 Introduction to Air Pollution Toxicology (1994)	US EPA Air Pollution Training Institute (APTI)	4	4	4	4		
742	4-Hour Spotter Refresher Course for Spotters at Solid Waste Management Facilities in Florida	Kohl Consulting Inc	4	4	4	4	4	
743	Health & Safety Issues for Solid Waste Management Facilities	Kohl Consulting Inc.	8	8	8	8	4	

Course #	Course Title	Course Provider	Landfill	Constructio n & Demolition Debris	Transfer Station	Materials Recovery Facility	Spotter	
744	The Sense of Smell, Odor, Theory and Odor Control	Kohl Consulting Inc.	4	4	4	4	2	
745	Spotters at Landfills and Transfer Stations: Safety Awareness Review	Kohl Consulting Inc.	4	4	4	4	4	
746	Landfill and Transfer Station Operators: Waste Acceptability and Safety Issues Review	Kohl Consulting Inc.	4	4	4	4	4	
747	Improving Landfill Operations	Kohl Consulting Inc.	4	4				
748	Fires at Landfills and Other Solid Waste Management Facilities	Kohl Consulting Inc.	4	4	4	4	4	
749	Improving Transfer Station Efficiency	Kohl Consulting Inc.			4	4		
750	Landfill Gas Collection and Re-Use	Kohl Consulting Inc.	4	4				
751	Landfills: Past, Present and Future	Kohl Consulting Inc.	4	4			4	
752	Landfills and Transfer Stations: Past, Present and Future	Kohl Consulting Inc.	4	4	4		4	
753	Wet Weather Operations	Kohl Consulting Inc.	4	4	2	2	4	
754	Topics in Solid Waste Management for Landfill Operators, MRF Operators and Transfer Station Operators	Kohl Consulting Inc.	4	4	2	2	2	
755	Wildlife and Plants at Florida Solid Waste Management Facilities	Kohl Consulting Inc.	4	4	4	4	2	
756	Measurement and Improvement of Performance at Solid Waste Management Facilities ("If you Can't Measure it, You Can't Manage It")	Kohl Consulting Inc.	4	4	4	4		
757	CPR / AED	American Safety & Health Institute - American Health Association - American Red Cross	2	2	2	2	2	
758	First Aid	American Safety & Health Institute - American Health Association - American Red Cross	2	2	2	2	2	
759	Refresher Training Course for Experienced Solid Waste Operators - 16hrs	University of Florida TREEO Center	16	16				
760	Refresher Training Course for Experienced Solid Waste Operators - 8hrs	University of Florida TREEO Center	8	8	8	8		
761	Refresher Training Course for Experienced Solid Waste Operators - 4hrs	University of Florida TREEO Center	4	4	4	4	4	
762	U.S. DOT Hazardous Materials/Waste Transportation	University of Florida TREEO Center	6	6	6	6	4	
763	OSHA 10-hour General Industry Safety Outreach Training	Training Consultants Inc.	4	4	4	4	4	
764	NAHMMMA 2013 Florida Chapter Annual Conference – General Sessions	North American Hazardous Materials Management Association	10	10	8	8	4	
765	Road-e-o: Heavy Equipment Safety Training	SWANA-FL	4	4	4	4	2	
766	North American Waste-To-Energy Conference NAWTEC 21st Annual	SWANA	4	4		4		
767	Food Waste Recycling Workshop	SWIX & FDEP	5		3		2	
768	Florida Stormwater, Erosion, and Sedimentation Control Inspector Training and Certification Program	FDEP	3	3				

APPENDIX B

RESERVE EQUIPMENT AGREEMENT

Ring Power Corporation
10421 Fern Hill Drive
Riverview, FL 33578

Waste Management Inc. /Southeast Landfill
P.O. Box 627
Balm, FL 33503
Location: Hillsborough County Landfill

2/21/2013

Rental Rates effective through 12/31/13

Waste Management is responsible for maintenance and all damages to rental equipment.

Equipment rental is subject to availability.

Transportation cost quoted upon request.

<u>Make</u>	<u>Model</u>	<u>Description</u>	<u>Day Rate</u>	<u>Week Rate</u>	<u>Month Rate</u>	<u>Cleaning Fee</u>
CAT	D8T	Dozer(w/o waste handling arrangement)	\$ 1,900.00	\$ 5,800.00	\$ 16,400.00	\$ 2,400.00
CAT	D6T	Dozer(w/o waste handling arrangement)	\$ 1,100.00	\$ 3,300.00	\$ 9,100.00	
CAT	D6N	Dozer(w/o waste handling arrangement)	\$ 900.00	\$ 2,700.00	\$ 7,400.00	
CAT	D5K	Dozer(w/o waste handling arrangement)	\$ 620.00	\$ 1,760.00	\$ 5,040.00	
CAT	725	Articulated dump truck 18.8 cyd capacity	\$ 1,100.00	\$ 3,200.00	\$ 8,700.00	
CAT	329EL	Hydraulic Excavator 2.5 cyd bucket capacity	\$ 900.00	\$ 2,600.00	\$ 6,900.00	
CAT	613	Scraper 11 cyd bowl capacity	\$ 1,100.00	\$ 3,200.00	\$ 8,700.00	
CAT	12M	Motor Grader 14' mold board	\$ 800.00	\$ 2,300.00	\$ 6,000.00	
CAT	938K	Wheel Loader 3.05 cyd bucket capacity	\$ 700.00	\$ 2,000.00	\$ 5,000.00	
CAT	416E	Loader Backhoe	\$ 200.00	\$ 500.00	\$ 1,500.00	
CAT	CS56	Single Drum Roller 84" wide drum	\$ 500.00	\$ 1,400.00	\$ 3,400.00	

*Plus tax & Insurance

Ring Power guarantees Waste Management a suitable rental machine delivered to Hillsborough County Landfill within 24 hours of their request.

APPENDIX C

RANDOM INSPECTION AND VIOLATION REPORT

SOLID WASTE FACILITY INSPECTION / VIOLATION REPORT

REPORT TYPE: ☐ INSPECTION ☐ VIOLATION ☐ LF RANDOM INSPECTION

LOCATION: _____ DATE: _____ TIME: _____

DELIVERING COMPANY: _____ FRANCHISE COLLECTOR: ☐ WMI ☐ EB ☐ KR
OTHER: _____

DRIVER NAME: _____ VEHICLE #: _____

VEHICLE TYPE ☐ FEL ☐ RO ☐ RL ☐ SL ☐ SEMI ☐ DUMP
OTHER: _____

CUSTOMER / GENERATOR: _____ TRANSACTION #: _____

TYPE OF WASTE:

<input type="checkbox"/> YARD WASTE	<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> AUTO PARTS	<input type="checkbox"/> BY PASS WASTE
<input type="checkbox"/> C & DD	<input type="checkbox"/> INSULATION	<input type="checkbox"/> ASH RESIDUE	<input type="checkbox"/> ANIMAL WASTE
<input type="checkbox"/> FURNITURE	<input type="checkbox"/> AG WASTE	<input type="checkbox"/> ROOFING	<input type="checkbox"/> SPECIAL WASTE
<input type="checkbox"/> CARDBOARD	<input type="checkbox"/> FIELD PLASTIC	<input type="checkbox"/> METALS	
<input type="checkbox"/> COMMERCIAL WASTE	<input type="checkbox"/> HOUSEHOLD GARBAGE		
<input type="checkbox"/> OTHER: _____			

TYPE OF VIOLATION: ☐ FACILITY ☐ LOAD ☐ SAFETY ☐ CONTAINER
DETAILS: _____

DRIVER COMMENTS: _____

RESULTS: ☐ ACCEPTED ☐ REJECTED ☐ RELOAD ☐ ALREADY IN PIT

INSPECTOR'S SIGNATURE: _____

ADDITIONAL COMMENTS: _____

APPENDIX D

SPECIAL WASTE PROGRAM

**Hillsborough County
Public Utilities Department**

SOLID WASTE MANAGEMENT GROUP

**WASTE PROFILE PROGRAM
GUIDELINES**

General Waste & Special Waste

2013

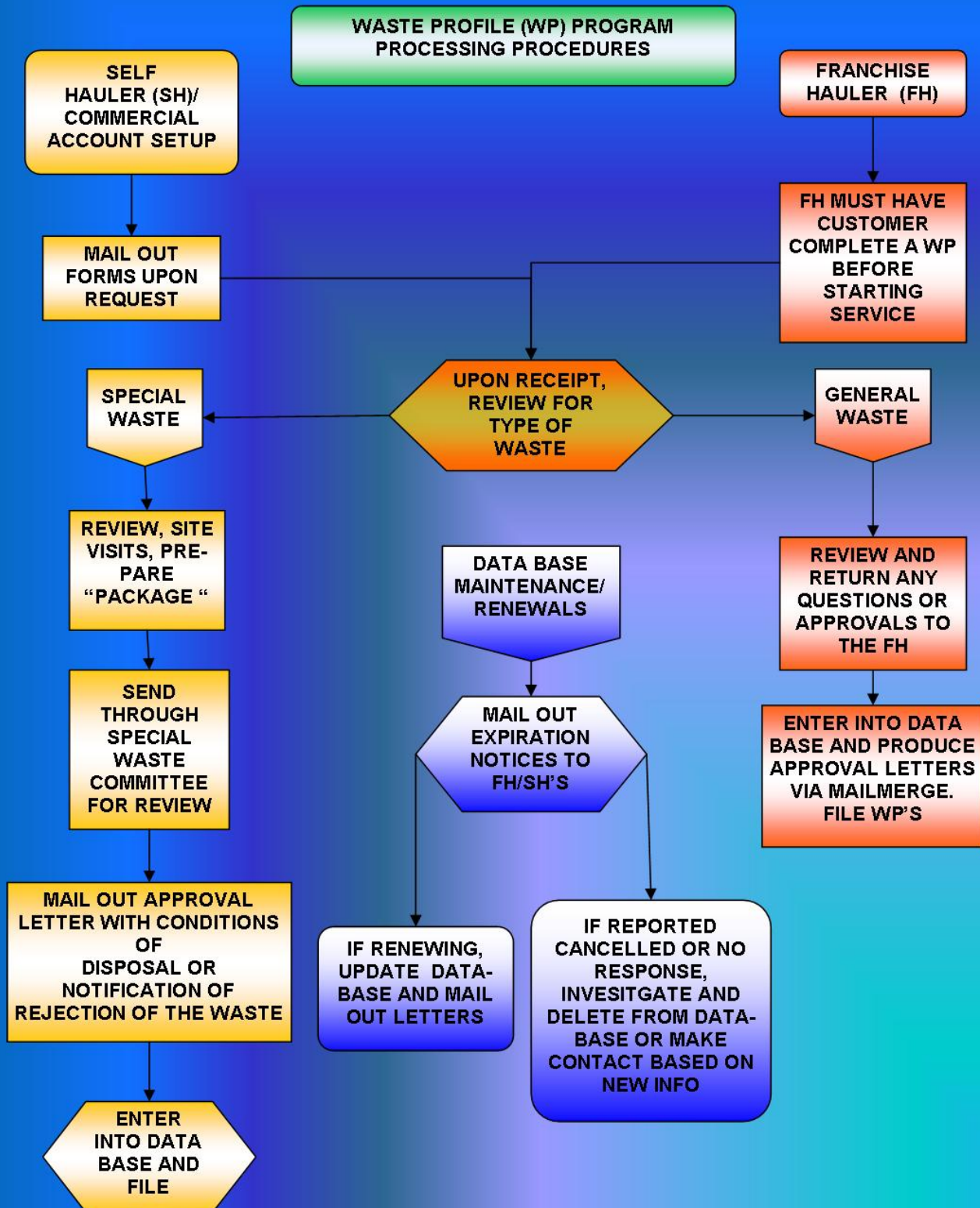


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SOLID WASTE MANAGEMENT GROUP

Waste Profile Program



SPECIAL WASTE PROFILE PROCEDURES

The Countywide Solid Waste Profile Program was developed to assist in identifying all non-residential solid waste streams generated in Hillsborough County and delivered to the Solid Waste Management System. The Program is designed to prescreen municipal solid waste prior to acceptance for disposal.

NEW APPLICATIONS:

- Receive Special Waste application packages submitted by private commercial waste generators, Government Agencies and Franchise Haulers. Review the applications for completeness and accuracy.
- Determine whether Application packages are routine or will require committee review. If determined "routine", application request packages may be accomplished by authorized staff assigned to Waste Profile Program.
- Check and prepare packages with cover letters, supporting documentation such as Material Safety Data Sheets (MSDS), photos, test analysis data (TCLP), etc.
- Interpret TCLP test analysis and/or MSDS sheets to assist in determining waste stream toxicity characteristics that may exist in the waste stream.
- Determine if on-site environmental audit (visit) is warranted to assist in validating integrity of information provided in Waste Profile Application. Focus mainly on waste streams generated at facility and its commercial disposal practices.
- Compile all information, prepare draft response letter and add review cover sheet for submittal to Special Waste Committee.

COMMITTEE REVIEW:

- Each member of the Special Waste Committee (6 members-includes Group Manager) receives Special Waste packages and conducts their own individual reviews on a case-by-case basis.
- Each member checks for completeness and accuracy of required documentation, checks type of waste and observe photos (when presented) to further describe waste streams.
- Interpret all test analysis results and analyze MSDS sheets to determine toxicity characteristics that may exist in a particular waste stream.
- Each member will enter written comments on the review cover sheet of each package and make recommendations for "Approval" or "Rejection" based on their findings. Packages are returned to Waste Profile staff and

Cont.

prepared for Group Manager submittal.

GROUP MANAGER'S DISPOSITION:

- Group Manager receives Special Waste packages, reviews documentation, checks for completeness and accuracy, weighs each member's comments and chooses disposition for Approval or Rejection. Final sign-off action by Group Manager.
- After sign-off, response letters are mailed to each generator, hard copy (cc) goes to other entities and filed away inter-office.

RENEWALS:

- Procedure is done monthly. Approval periods are usually for 1 to 2 years.
- Produce Renewal Information "notices" via database mail-merging, then mail to Self Haulers.
- Once Information notices are returned, enter all changes into database.
- Produce Approval letters and mail to self haulers and generators for that month.
- Hard copy goes to other entities (cc) and filed away inter-office.

MAINTAINING DATABASE:

- Review weekly reports received from Franchise Haulers. Reports contain data on new accounts and closed or cancelled accounts.
- Research all info to determine if businesses are still operating or changed ownership occurred since last renewal.
- Contact businesses to confirm current hauler, name change, address changes, etc. as needed.
- Update all information for self haulers as well as general waste customers in database on daily bases.
- Ensure all data is kept current as possible by contacting and interacting with Franchise Haulers as well as self haulers.

DISPOSAL INQUIRIES:

- Ensure all voice mail disposal enquiries are logged in daily for immediate response.
- Ensure the date, time of call, party called, phone #, and subject of call is accurately documented.
- Respond to all daily calls as promptly and professionally as possible and ensure all customers get direct and courteous assistance to all disposal questions and issues.



Hillsborough County Solid Waste Management Department
COUNTYWIDE SOLID WASTE PROFILE FORM

SWMD ~~####~~ 2

PLEASE RETURN FORM TO:

Hillsborough County Solid Waste Management Department
P.O. BOX 1110
TAMPA, FL 33601-1110
ATTN: Management and Environmental Services Section

COUNTY USE ONLY

Approved _____ Rejected _____
Disposal Facility _____
Expiration Date _____
Special Instructions _____
Reviewed By _____

PART A. GENERAL INFORMATION

1. Business Name _____
2. Type of Business _____
3. Business Location _____
(Street) (City) (State) (Zip Code)
4. Mailing Address _____
5. Technical Contact Person _____
6. Phone _____ E-mail _____
9. Collector's Name (Last, First, Middle Initial) _____

**SPECIAL WASTE
FORM**

PART B. What is the general nature of your waste (Check all that apply):

1. ☐ Agricultural/Nursery Retail
2. ☐ Automotive Service
3. ☐ Dry Cleaning/Laundry Establishments
4. ☐ Industrial Process/Manufacturing
5. ☐ Medical/Veterinary/Pharmaceutical
6. ☐ Food/Film Processing
7. ☐ Retail/Office
8. ☐ Other _____
(Describe)

PART C. SOLID WASTE CHARACTERIZATION: (Please complete a separate form for each type of waste.)

1. Name of Waste _____
2. Current Method of Disposal _____
3. Frequency of Disposal _____
4. Quantity Generated _____ Per Week _____ Month _____ Year _____
5. Physical State _____ Solid _____ Liquid _____ Semi-Solid _____ Other (Describe) _____
6. Empty Container Types _____ How Many? (Per Week, Month, Year) _____
7. Is this a RCRA or D.O.T. hazardous material? (As defined in USEPA 40 CFR PART 260.10) _____ YES _____ NO
8. Are there any Free Liquids present? _____ YES _____ NO

PART D. SAMPLING CRITERIA

Some industrial/commercial wastes require analytical testing data to determine if they are acceptable for disposal in the Solid Waste Management System. The Hillsborough County Solid Waste Management Department (HCSWMD) may require additional information on your waste stream. (Please see instruction sheet.) The HCSWMD reserves the right to require additional analysis of waste prior to, or subsequent to acceptance for disposal.

1. Indicate current method used to determine the physical and chemical composition of the waste.
_____ TCLP _____ OTHER (Describe): _____
2. A copy of current test results are to be submitted with this form. Attached? Yes _____ No _____

PART E. GENERATOR CERTIFICATION By signing this form, generator certifies that, unless clearly stated above:

1. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
2. This waste does not contain any levels of Polychlorinated Biphenols (PCBs).
3. This waste does not contain any infectious, biomedical, or biohazardous waste materials.
4. This waste does not contain any soil (dirt) material.
5. This form contains a true and accurate description of the waste material to be disposed.
6. All relevant information regarding known or suspect hazards in possession of the generator has been disclosed.

NOTE: Should any changes occur in the character of the solid waste, the generator shall immediately notify the Hillsborough County Solid Waste Management Department.

7. _____ 8. _____
Signature Title

SPECIAL WASTE REVIEW

SWMD #

WASTE DATE REC'D

DISPOSITION

<u>APPR'D</u>	<u>RJCT'D</u>	<u>COMM. MEMBER</u>	<u>DATE</u>	<u>COMMENTS/CONCERNS</u>
<input type="radio"/>	<input type="radio"/>	ERNIE MAYES	_____	_____ _____
<input type="radio"/>	<input type="radio"/>	DAVE ADAMS	_____	_____ _____
<input type="radio"/>	<input type="radio"/>	MEGAN MILLER	_____	_____ _____
<input type="radio"/>	<input type="radio"/>	MIKETOWNSEL	_____	_____ _____
<input type="radio"/>	<input type="radio"/>	PATTY BERRY	_____	_____ _____

GENERAL WASTE PROFILE PROCEDURES

NEW APPLICATIONS:

1. Review forms from Franchise Collectors (FC) as received.
2. Fax or email back to FC with any questions or if incomplete.
3. If approved, fax or email to FC with conditions for disposal.
4. Enter approvals into the data base.
5. Produce approval letters and mail to the FC customers. Letters include conditions and restrictions.

RENEWALS (This procedure is done monthly. Approvals are for 2-3 years based on the waste description, type of business, or history of problems.)

1. Produce "renewal" notices and mail to FC for review.
2. Upon receipt back, enter changes in data base. Produce letters and mail to generators/customers.

(NOTE: Renewals average 150/month)

MAINTAINING DATA BASE (This is based on the above if accounts are reported as closed, and the weekly reports of "new and cancelled" accounts from the FC.)

1. Review all accounts reported as closed. Research to see if still in business, based on several sources.
2. If found to still be in business, contact business, to verify if service was stopped, changed hauler, etc.
3. Update data base based on info.
4. Notify FC of this info in case a different FC is now servicing but did not report it in the weekly reports.

(NOTE: This last procedure is also done for Special Waste if reported as cancelled or no response was received from a "self hauler".)



Hillsborough County Solid Waste Management Department
COUNTY WIDE SOLID WASTE PROFILE FORM
GENERAL WASTE

SWMD 104911

Please read instructions before completing this form. Failure to complete the form accurately will delay processing.
THIS FORM IS NOT TO BE USED FOR "SPECIAL WASTE" DISPOSAL.

PART A: SERVICE INFORMATION

Collector/Hauler Name: _____ Service Start Date: _____ Frequency: _____ Quantity: _____
☐ Permanent ☐ Temporary End Date: _____ ☐ ONE TIME

PART B: GENERAL INFORMATION

PLEASE PRINT CLEARLY OR TYPE

1. Service Location Name: _____
2. Type of Business: _____
3. Physical/Service Address: _____
(Number) (Street) (Suite) (City) (Zip)
4. Service Location Contact: _____ Title/Position: _____
5. Mailing Address of Contact: _____
(Number) (Street) (Suite) (City) (State) (Zip)
6. Phone #: () - 7. Fax #: () - 8. E-Mail : _____

PART C: SOLID WASTE DESCRIPTION (See instructions for definitions of waste streams.)

9. List Waste: _____
(Be Specific) _____
10. Does this location recycle? YES ☐ 11. List items recycled: _____

PART D: GENERATOR CERTIFICATION By signing this form the Generator and the Franchise Hauler certifies that, unless clearly stated above:

- A. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
B. This waste does not contain any liquids or oily contaminated materials (OCS).
C. This waste does not contain any infectious, biomedical, or other hazardous waste materials.
D. This waste does not contain any soil/dirt material.
E. This form contains a true and accurate description of the waste material to be disposed.
F. All relevant information regarding known or suspect hazards in possession of the generator has been disclosed.

NOTE: Should any changes occur in the character of the solid waste, the generator shall immediately notify the Hillsborough County Solid Waste Management Department.

10. _____ Signature 11. _____ Title
12. _____ Name (Type or Print) 13. _____ Date
14. _____ Hauler Agent Name (Print) 15. _____ Hauler Agent Signature

FOR COUNTY USE ONLY

☐ The HCSWMD has **APPROVED** the solid waste for disposal at the _____ subject to the following conditions: _____

NO LIQUIDS WILL BE ACCEPTED. OUT OF COUNTY WASTE WILL NOT BE ACCEPTED. DEVICES OR WASTES THAT CONTAIN HAZARDOUS PROPERTIES WILL NOT BE ACCEPTED. EXPIRATION DATE _____

☐ The HCSWMD has **REJECTED** the solid waste for disposal due to the following reasons: _____

REVIEWED BY: _____ DATE: _____

**COUNTY WIDE SOLID WASTE PROFILE FORM**
GENERAL WASTE

SWMD

Please read instructions before completing this form. Failure to complete the form accurately will delay processing. Additional information, such as Material Safety Data Sheets (MSDS), may also be required by the HCSWMD. Generator may also be asked to submit a copy of the latest test results (TCLP or OTHER) from a state certified laboratory. Disposal may NOT begin until the SWMD has given an approval.

DATE IS 2 1/2 MONTHS BEFORE DATE SENT TO SWMD!

PART A: SERVICE INFORMATION

Collector/Hauler Name: SANI WASTE Service Start Date: 9/14/05 Frequency: _____ Quantity: _____
☒ Permanent ☐ Temporary (service of longer than 90 days) End Date: _____ SERVICE INFORMATION? NE TIME

PART B: GENERAL INFORMATION

1. Service Location Name: Smurfit Waste SMURFIT IS A KNOWN MANAGEMENT COMPANY, NOT A MANUFACTURING COMPANY
2. Type of Business: mfg MANUFACTURER OF WHAT? _____ SUITE #? KNOWN MULTI ADDRESS LOCATION. _____
3. Physical/Service Address: 6001 Johns Rd Tampa 33634
(Number) (Street) (Suite) (City) (Zip)
4. Service Location Contact: Bob Jones ADDRESS IS SMURFIT'S CONTACT, NOT THE BUSINESS INFORMATION
5. Mailing Address of Contact: PO Box 4441 Bridgeton MO 63044
(Number) (Street) (Suite) (City) (State) (Zip)
6. Phone #: () 245 3231 7. Fax #: () 247-5489 8. E-Mail: _____ AREA CODES? _____

PART C: SOLID WASTE IDENTIFICATION (See instructions for definitions of waste streams.)

9. List Waste: Computer parts, casings, plastic, lunchroom waste, paper, wood, Fiberglass SEE BELOW
(Be Specific)
10. Does this location recycle? YES ☒ 11. List items recycled: card

PART D: GENERATOR CERTIFICATION By signing this form the Generator and the Franchise Hauler certifies that, unless clearly stated above:

- A. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
B. This waste does not contain any levels of Polychlorinated Biphenols (PCBs).
C. This waste does not contain any infectious, biomedical, or bio-hazardous waste materials.
D. This waste does not contain any radioactive materials.
E. This form contains no false or misleading information.
F. All relevant information has been provided.

NOTE: Should any changes occur in the character of the waste, the Generator must immediately notify the Hillsborough County Solid Waste Management Department.

THIS FORM WAS REJECTED

10. Bob Jones Signature Art Title
12. Bob Jones Name (Type or Print) NOT RECEIVED BY SWMD UNTIL 12/2/05 → Date: 9/12/05
14. _____ Hauler Agent Name _____ Hauler Agent Signature

FOR COUNTY USE ONLY

☐ The HCSWMD has APPROVED the solid waste for disposal at the _____ subject to the following conditions: _____

NO LIQUIDS WILL BE ACCEPTED. OUT OF COUNTY WASTE WILL NOT BE ACCEPTED. DEVICES OR WASTES THAT CONTAIN HAZARDOUS PROPERTIES WILL NOT BE ACCEPTED. EXPIRATION DATE: _____

REASON FOR REJECTION

☒ The HCSWMD has REJECTED the waste. Reason: NAME OF BUSINESS, NOT BILLING - COMPUTER PARTS ARE HAZ - See Notes

REVIEWED BY: [Signature] DATE: 12/2/05



COUNTY WIDE SOLID WASTE PROFILE FORM
GENERAL WASTE

SWMD

Please read instructions
information, such as Material
of the latest test results (TCLP or OTHER) from a state certified laboratory. Disposal may NOT begin until the

COMPLETED CORRECTLY BY WASTE GENERATOR

delay processing. Additional
also be asked to submit a copy

SEE BOTTOM FOR APPROVAL
CONDITIONS

PART A: SERVICE INFORMATION

Collector/Hauler Name: SANI WASTE Service Start Date: 12/15/05 Frequency: 2 W Quantity: 8 YR FEL
☒ Permanent ☐ Temporary (service of longer than 90 days) End Date: ☐ ONE TIME

PART B: GENERAL INFORMATION

PLEASE PRINT CLEARLY OR TYPE

1. Service Location Name: Smith Electronics
2. Type of Business: Computer Maint
3. Physical/Service Address: 6001 Johns Rd # 1 Tampa FL 33634
(Number) (Street) (Suite) (City) (State) (Zip)
4. Service Location Contact: John Smith Title/Position: Owner
5. Mailing Address of Contact: 6001 Johns Rd # 1 Tampa FL 33634
(Number) (Street) (Suite) (City) (State) (Zip)
6. Phone #: 813 245 3231 7. Fax #: 813 247 5489 8. E-Mail: SmithJ@Smithelectr.com

PART C: SOLID WASTE DESCRIPTION (See instructions for definitions of waste streams.)

9. List Waste: plastic computer casings, wood, metal, paper, lunch room waste,
(Be Specific) fiber glass
10. Does this location recycle? YES ☒ 11. List items recycled: computer components

PART D: GENERATOR CERTIFICATION By signing this form the Generator and the Franchise Hauler certifies that, unless clearly stated above:

- A. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
- B. This waste does not contain any levels of Polychlorinated Biphenols (PCBs).
- C. This waste does not contain any infectious, biomedical, or bio-hazardous waste materials.
- D. This waste does not contain any soil/dirt material.
- E. This form contains a true and accurate description of the waste material to be disposed.
- F. All relevant information regarding known or suspect hazards in possession of the generator has been disclosed.

NOTE: Should any changes occur in the character of the solid waste, the generator shall immediately notify the Hillsborough County Solid Waste Management Department.

10. John Smith Signature 11. Owner Title
12. John Smith Name (Type or Print) 13. 12/30/05 Date
14. SID SIMONS Hauler Agent Name (Print) 15. [Signature] Hauler Agent Signature

FOR COUNTY USE ONLY

The HCSWMD has APPROVED the solid waste for disposal at the SOUTH EAST COUNTY LANDFILL subject to the following conditions: Due to nature of waste, this is to be transported to the Landfill

No Computer/Electronics Part/Components except for plastic/metal casings
NO LIQUIDS WILL BE ACCEPTED. OUT OF COUNTY WASTE WILL NOT BE ACCEPTED. DEVICES OR WASTES THAT CONTAIN HA APPROVED FOR DISPOSAL AT THE LANDFILL DUE TO WASTE DESCRIPTION. 12/31/08
NOTE THAT THE CONTAINER IS ONLY AN 8 YARD FEL. HAULER SHOULD

The HCSWMD

REVIEWED BY: [Signature]

DATE: 12/2/05

12/10/2005 11:39

813-292-0444

COUNTY WIDE SOLID WASTE PROFILE FORM

PAGE 01

SWMD

REJECTED FOR THE REASONS SHOWN...
WRONG FORM USED!

FAXED TO BUSINESS AND SWMD

Please read
information, &
of the latestFailure to complete the form accurately will delay processing. Additional
also be required by the HCSWMD. Generator may also be asked to submit a copy
laboratory. Disposal may NOT begin until the SWMD has given an approval.

PART A: SERVICE INFORMATION

Collector/Hauler Name: SANI WASTE Service Start Date: 12/1/05 Frequency: ON CALL Quantity: 40 OT
☐ Permanent ☒ Temporary (service of longer than 90 days) End Date: 6/1/06 ☐ ONE TIME

PART B: GENERAL INFORMATION

PLEASE PRINT CLEARLY OR TYPE

FORM COMPLETED BY HAULER REP... THIS IS NOT
THE CORRECT SPELLING OF BUSINESS NAME

1. Service Location Name: ROOFS ARE US
 2. Type of Business: Roofing Repair, Replacement
 3. Physical/Service Address: Differs with Job Location
 (Number) (Street) (Suite) (City) (Zip)
 4. Service Location Contact: John Smith Title/Position: Owner
 5. Mailing Address of Contact: PO Box 458 BRANDON FL 33509
 (Number) (Street) (Suite) (City) (State) (Zip)
 6. Phone #: (813) 681-4329 7. Fax #: (813) 684-5328 8. E-Mail: NA

PART C: SOLID WASTE DESCRIPTION (See instructions for definitions of waste streams.)

9. List Waste: Asbestos Roofing Materials, Construction Mtls
 (Be Specific)

ASBESTOS IS "SPECIAL WASTE".
SW FORM IS TO BE USED.10. Does this location recycle? YES ☐ 11. List items recycled:PART D: GENERATOR CERTIFICATION By signing this form the Generator and the Franchise Hauler certifies that, unless
clearly stated above:

- A. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local
Regulations.
 B. This waste does not contain hazardous materials.
 C. This waste does not contain asbestos.
 D. This waste does not contain lead.
 E. This form contains all relevant information.
 F. All relevant information is provided.

NOTE: Should any changes occur in the character of the solid waste, the generator shall immediately notify the Hillsborough
County Solid Waste Management Department.

10. [Signature] Signature Title: owner
 12. John Smith Name (Type or Print) Date: 12/3/05
 14. Sid Simons Hauler Agent Name (Print) 15. [Signature] Hauler Agent Signature

THE ONLY THING
COMPLETED ON
THIS FORM BY MR
SMITH WAS HIS
SIGNATURE!

FOR COUNTY USE ONLY

☐ The HCSWMD has A
following conditions:
REASON FOR REJECTION: SERVICE START DATE 12/1, SIGNED
12/3, AND NOT SENT TO SWMD UNTIL 12/10. WRONG FORM
USED, FORM NOT COMPLETED BY MR. SMITH. IF CONTAINER
HAS BEEN SERVICED THIS IS A VIOLATION OF THE CONTRACT
AGREEMENT WITH THE SWMD.NO LIQUIDS WILL BE ACCEPTED. ED. DEVICES OR WASTES THAT
CONTAIN HAZARDOUS PROPERTIES WILL NOT BE ACCEPTED. EXPIRATION DATE

The HCSWMD has REJECTED the solid waste for disposal due to the following reasons: WRONG FORM, NOT
completed by Mr. Smith, serviced without approval

REVIEWED BY: [Signature] DATE: 12/10/05



COUNTYWIDE SOLID WASTE PROFILE FORM

SWMD 3559

CORRECT FORM USED. ORIGINAL, NOT FAXED. COMPLETED BY MR SMITH EXCEPT FOR SERVICE INFORMATION

ATTN: Management and Environmental Services Section

COUNTY USE ONLY

Approved ☒ Rejected ☐
Disposal Facility _____
Expiration Date 6/30/06 SELF
Special Instructions SEE ATTACHED
Reviewed By SM 12/2/05

PART A. GENERAL INFORMATION

1. Business Name Roots R Us
2. Type of Business Roofing
3. Business Location different job sites
4. Mailing Address PO Box 458 Brandon FL 33506
5. Technical Contact Person John Smith
6. Phone 813 681 4329 7. Fax 813 684 5326 8. E-mail NA
9. Collector's Name (Hauler) SANI WASTE

PART B. What is the general nature of your waste (Check all that apply):

1. ☐ Agricultural/Nursery Retail 5. ☐ Medical/Veterinary/Pharmaceutical
2. ☐ Automotive Service 6. ☐ Photo Film Processing
3. ☐ Dry Cleaning/Laundry Establishments 7. ☐ Retail/Office
4. ☐ Industrial Process/Manufacturing 8. ☐ Other _____
(Describe)

PART C. SOLID WASTE CHARACTERIZATION: (Please complete a separate form for each type of waste.)

1. Name of Waste Asbestos Roofing materials, Wood, shingles
2. Current Method of Disposal NEW BUSINESS
3. Frequency of Disposal ON CALL TEMPORARY 6 MTHS
4. Quantity Generated 40 YRD OT Per Week _____ Month _____ Year _____
5. Physical State ☐ Solid ☐ Liquid ☐ Semi-Solid ☐ Other (Describe) _____
6. Empty Container Types _____ How Many? (Per Week, Month, Year) _____
7. Is this a RCRA or D.O.T. hazardous material? (As defined in USEPA 40 CFR PART 260.10) ☐ YES ☐ NO
8. Are there any Free Liquids present? ☐ YES ☐ NO

PART D. SAMPLING CRITERIA

Some industrial/commercial wastes require analytical testing data to determine if they are acceptable for disposal in the Solid Waste Management System. The Hillsborough County Solid Waste Management Department (HCSWMD) may require additional information on your waste stream. (Please see instruction sheet.) The HCSWMD reserves the right to require additional analysis of waste prior to, or subsequent to acceptance for disposal.

1. Indicate current method used to determine the physical and chemical composition of the waste.
_____ TCLP _____ OTHER (Describe): _____
2. A copy of current test results are to be submitted with this form. Attached? Yes _____ No _____

PART E. GENERATOR CERTIFICATION By signing this form, generator certifies that, unless clearly stated above:

1. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
2. This waste does not contain any levels of Polychlorinated Biphenols (PCBs).
3. This waste does not contain any infectious, biomedical, or biohazardous waste materials.
4. This waste does not contain any soil (dirt) material.
5. This form contains a true and accurate description of the waste material to be disposed.
6. All relevant information regarding known or suspect hazards in possession of the generator has been disclosed.

NOTE: Should any changes occur in the character of the solid waste, the generator shall immediately notify the Hillsborough County Solid Waste Management Department.

7. John Smith Signature
8. Owner Title
9. John Smith Name (Type or Print)
10. 12/1/05 Date

ORIGINAL LETTER SENT OUT TO FC'S AND BUSINESSES AT THE START OF THE PROGRAM

BOARD OF COUNTY COMMISSIONERS

Stacey L. Easterling
Pat Frank
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Jim Norman
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Hillsborough County Florida

Office of the County Administrator
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Kathy C. Harris
Edwin Hunzeker
Anthony Shoumaker

NOTICE

EFFECTIVE OCTOBER 1, 1997

COUNTYWIDE SOLID WASTE PROFILE PROGRAM

The Hillsborough County Solid Waste Management Department (SWMD) has developed a Countywide Solid Waste Profile (Program) that will assist in identifying *all* non-residential solid waste streams generated in Hillsborough County and delivered to the Solid Waste Management System (System).

The purpose of this "Notice" is to inform you of the Program's requirement that a Countywide Solid Waste Profile application must be completed and returned to the SWMD prior to waste disposal in the System. The SWMD may require waste generators to provide additional back-up information (Laboratory analysis, MSDS, certification letters, etc.) to support their application..

Upon receipt of the completed application, the SWMD Waste Profile Committee will review each application on a case-by-case basis and make recommendations to the Department Director for approval or rejection of the request for solid waste disposal.

The Program is designed to pre-screen *all* non-residential solid waste prior to acceptance for disposal. An on-site inspection by SWMD personnel may be necessary to verify the Applicant's waste generation process and/or the waste materials. The generator will be contacted to schedule a site inspection if required.

Countywide Solid Waste Profile Applications determined to be acceptable will receive disposal approval for a minimum term of one (1) year. The SWMD, however, reserves the right to cancel disposal privileges if it is determined that the Countywide Solid Waste Profile application is no longer representative of the material delivered to the System.

Franchised Solid Waste Collectors under contract to Hillsborough County must have *all* non-residential customers complete a Countywide Solid Waste Profile application. *Franchise Collectors may not collect and dispose of non-residential solid waste unless the generator has approval from the SWMD to utilize the system.*

Should you have any questions regarding this program, please contact Ernie Mayes at (813) 276-3045.

Future of Hillsborough

Comprehensive Plan for Unincorporated Hillsborough County Florida

SOLID WASTE

As Amended by the Hillsborough County Board of County Commissioners June 5, 2008 (Ordinance 08-13)

Department of Community Affairs Notice of Intent to Find Comprehensive Plan Amendments in Compliance published August 4, 2008 {DCA PA No. 08-1ER-NOI-2901- (A)-(I)}

August 26, 2008 Effective Date

Residents also generate hazardous waste in the form of leftover paints and related products, pesticides and herbicides, and cleaning solvents. These wastes are exempt from the Resource Conservation and Recovery Act (RCRA) requirements and may be disposed of in a Class I landfill. The State of Florida, as reported by the FDEP, generates approximately 120,000 tons of household hazardous waste annually.

Currently there are several businesses located in the State of Florida which have demonstrated financial responsibility to FDEP to transport, process, and coordinate with an out-of-state treatment, storage, and disposal facility (TSDF) for the treatment and disposal of hazardous waste. Federal and state regulations require large quantity generators (LQGs - generators of greater than 1000 kilograms of hazardous waste per month) and small quantity generators (SQGs - generators of between 100 and 1000 kilograms of hazardous waste per month) to process their waste in accordance with the RCRA's cradle-to-grave concept. At this time, Universal Waste and Transit is a FDEP permitted TSDF presently operating in Hillsborough County.

"To meet the need for managing small quantities of hazardous waste, and encourage proper hazardous waste disposal, the 1988 Florida legislature established a grant program to construct safe, secure local or regional hazardous waste collection centers, and initiate the operation of the centers for the collection and removal of hazardous waste. The hazardous waste stream that is targeted by this legislation is household hazardous waste and exempt small quantity generators waste." (Section 403.7265 Florida Statutes). Hillsborough County received the State's grant monies and has sited two household chemical collection facilities in the County, that are open one weekend a month on a rotating basis.

The Hillsborough County Solid Waste Management Department (HCSWMD) has updated the department's special waste program to provide a level of quality assurance to meet mandated State and Federal requirements. The Federal requirements are those associated with Sub-Title "D" of RCRA which provide for aggressive screening of the waste stream to eliminate or reduce the introduction of hazardous waste at the landfill, resource recovery facility, and transfer stations. The HCSWD has established an intensive education program to comply with CFR 25, 1910, as it pertains to mandatory employer training requirements for those employees who could potentially come in contact with hazardous wastes or materials at their job sites.

INTRODUCTION

Profiling/tracking of Special Waste disposals began in the early 1980's and expanded to include ALL commercially generated waste in 1997. As part of the Franchise Collector Agreement, the Franchise Collector was responsible for obtaining Waste Profiles for ALL of their commercial accounts if delivering the waste to the Hillsborough County Solid Waste Management Group (SWMG) facilities for disposal.

In May 2007, the SWMG modified the requirements for obtaining an approval for waste disposal. Only those Franchise Collector customers having a high risk, by the nature of the business (having the possibility of mixing potentially hazardous materials with acceptable waste), will be required to submit the "General Waste" Profile form for the disposal of "General" (Processible) waste. Generators with minimal risk of disposing of waste with potentially hazardous properties will NOT be required to submit the new "General Waste" form for disposal of general waste. However, ALL customers disposing of "Special" waste, as described later in this document, into the SWMG system MUST submit the Special Waste form. ALL new generators/customers with waste being delivered to the SWMG system WILL have to be listed in the Weekly Update report.

PURPOSE OF THE WASTE PROFILE PROGRAM

The Franchise Collector should explain to its customer the reason for completing the Waste Profile forms. These forms are used to review the waste streams the Generator wishes to dispose of, to notify the Generator of the proper disposal practices for the waste stream, to make the waste generator aware of what can and cannot be disposed of in the county disposal system, and to notify the Franchise Collector of the disposal facility based on the waste described.

Hillsborough County Solid Waste Management Group requires that all commercial establishments wishing to dispose of waste at Hillsborough County's facilities complete the Waste Profile form for each type of waste being generated. (See "Waste Descriptions" on page 9.)

The Franchise Collector should make customers aware that they can not be serviced until the county has given approval to the Franchise Collector to begin service.

FRANCHISE COLLECTOR AGREEMENT

Section 17.2.1 – *The FRANCHISE COLLECTOR shall be responsible for complying with all aspects of the COUNTY'S Waste Profile Program which will be implemented at the start of the effective date of this contract.*

Section 17.2.2 – *The FRANCHISE COLLECTOR shall insure that all Commercial Customers have a valid Waste Profile approval from the COUNTY prior to providing Commercial Collection Service. Waste Profile forms are not required for customers producing Construction and Demolition Debris which is not being disposed of within the Solid Waste System. However, any customer, whose waste is being disposed of within the Solid Waste System, must submit a Waste Profile approval form and obtain approval from the Solid Waste Management Department.*

Section 17.2.3 – *Should a Commercial Customer not have a Waste Profile approval from the COUNTY, the FRANCHISE COLLECTOR shall be required to secure a completed Waste Profile Form from the Commercial Customer. The FRANCHISE COLLECTOR shall submit the completed Waste Profile Form to the COUNTY for Approval. Commercial Collection Service shall not be provided until the Commercial Customer receives COUNTY approval of that Customer's Waste Profile Form, or until the COUNTY advises the FRANCHISE COLLECTOR to pick up the waste in order to avoid the illegal accumulation of Solid Waste by the Customer pursuant to Ordinance 96-34.*

ALL WASTE GENERATED WITHIN HILLSBOROUGH COUNTY BOUNDARIES, AS DEFINED IN THE FRANCHISE COLLECTOR AGREEMENT, MUST BE APPROVED FOR DISPOSAL PRIOR TO BEING TRANSPORTED TO SWMG SYSTEM UNLESS REJECTED UPON REVIEW OF A WASTE PROFILE FORM.

CHANGES TO THE WASTE PROFILE PROGRAM

The SWMG has compiled a list of those types of businesses that may dispose of waste other than “General Waste” (paper, plastics, cardboard, foodstuffs, etc.). If a Franchise Collector signs up a new customer listed on the “Form Required List” (see page 21) for disposal of General Waste, the new General Waste form is to be used. This new “General Waste” form may be faxed or emailed to the SWMG, but must be legible in order to be reviewed/approved by the SWMG. ANY Generator disposing of waste other than General Waste MUST complete the “Special Waste” form. (This is the *original 3-part carbon set* form that, previously, was used for ALL waste.), (See pages 22-25 for “Required Wastes”.) The Special Waste form (pg 4) can NOT be faxed, **ONLY ORIGINAL forms will be accepted for waste other than “General”.** Any waste going to the Southeast County Landfill must be approved.

ORIGINAL (not faxed) forms should be completed by the Generator (business) receiving the service. However a Franchise Collector representative may pre-complete some portions in order to ensure accuracy. **DO NOT use the new General Waste form for waste that is NOT “General” (Processible/Burnable).** The **Special Waste** form must be used for all other types of waste including Special Waste disposal and MUST be completed by the Waste Generator, no copies or facsimiles will be accepted for disposal of NON-General Waste. Completion of the information on the Special Waste forms follows the same Guidelines shown in this document.

APPROVAL PROCESS

When the SWMG receives a completed Waste Profile form, staff will review all information. If **any** required information is missing, the form will be returned to the Franchise Collector. The Franchise Collector has **48** hours to respond. After 48 hours a route audit may be conducted to determine if the Franchise Collector has serviced the account without approval. The service information will be turned over to the Franchise Coordinator as a violation of the Franchise Agreement and a “Stop Service” order may be issued.

The SWMG will notify the Franchise Collector if there will be a delay in processing the request due to a possible site visit, based on the type of business and the waste listed. When all information is provided an approval or rejection will be sent to the Franchise Collector with the conditions for the approval or reasons for the rejection. The SWMG will e-mail the approval to the Franchise Collector. The Franchise Collector and the Generator will be notified as to the disposal facility that the waste is to be transported to, the date of expiration, and conditions of the

approval. It is the Franchise Collector's responsibility to ensure that the waste is transported to the approved facility.

If the Franchise Collector plans to transport the approved waste to a different facility, the Franchise Collector must notify the SWMG of the discrepancy.

The SWMG will send a copy of the approval/rejection to the waste generator explaining the conditions of the disposal or the reasons for rejection.

Franchise Collector customers, AS DESCRIBED IN THIS DOCUMENT, can NOT be serviced until a Waste Profile has been completed and approved by the County.

OVERVIEW OF PROCEDURES:

A. FRANCHISE COLLECTOR RESPONSIBILITIES

1. Obtain a completed and signed Waste Profile for waste that will be delivered to Hillsborough County Solid Waste Management Group disposal facilities using the new General Waste profile form or Special Waste form. **Special Waste disposals require the use of the 3 part carbon set form. Only original (not faxed) forms will be accepted for Special Waste disposals. (See pages 22-25 for Special Waste description and examples.)**
2. Review forms for accuracy, legibility and completion.
3. Forward completed forms to the county on a daily basis. (Franchise Collectors may **NOT** service a location or a waste stream until the SWMG has reviewed the waste stream.)
4. Respond to any questions the SWMG may have in order to approve or reject a waste stream. **Response must be made within 48 hours.** A few reasons the form may be returned are:
 - a. Incomplete address, i.e.: a suite number for a known multi-purpose location.
 - b. Another business in the SWMG system at the same address of the newly received form, and no notification of cancellation was given to the SWMG of the original account.
 - c. Form is illegible.
 - d. Incomplete waste description.
5. Report, weekly, ALL new and closed businesses/accounts. This is by location/service address. (See details shown later in this document.)
6. Review monthly expirations for renewal. Return to the SWMG by no later than the 15th of the expiration month.
7. Review monthly list of services cancelled by other Franchise Collectors, and notify the SWMG if now servicing the Generator for the same waste stream. Complete a Waste Profile or Change of Information form if servicing any of the generators on this list
8. Using the Change of Information procedures, notify the SWMG of changes in approved Waste Profile information: moved, change of Hauler, etc.

B. SOLID WASTE MANAGEMENT GROUP RESPONSIBILITIES

1. Review forms received from the Franchise Collectors and, within 24 hours of receipt:
 - a. Return incomplete forms to the Franchise Collector for completion.
 - b. Notify the Franchise Collector if there will be a delay in processing an approval and the reasons for same, i.e.: a site visit by the SWMG.
 - c. Forward approved or rejected applications to the Franchise Collector upon

- completion of review.
2. Notify the waste generator of the conditions of the waste disposal.
 3. Maintain data base daily, forward monthly expiration/renewal and reported cancellation list to the Franchise Collectors for review.

C. FRANCHISE COLLECTOR (HAULER) PROCEDURES

WASTE PROFILE

Following the procedures outlined in this document, have a Waste Profile form completed by the customer for the disposal of waste in the SWMG system. The Franchise Collector should supply a "Sample" of a completed form to the Generator to use as a guide, and the instructions on the back of the form must be followed or the disposal may be denied.

CHANGE OF INFORMATION FORM

The Change of Information forms are to be used to notify the SWMG when your customer moves, the company changes names but has the same ownership, if ownership changes but name stays the same (the Change of Information form must be signed by the new owner), or a company changes haulers. *If both name and ownership change, it's obviously not the same business that was approved and requires a new Waste Profile form.* There are exceptions to this and you will be notified by the SWMG on a case by case basis. ***When in doubt, call the SWMG Waste Profile Program contact.***

Several times a year the Franchise Collector will receive a copy of the SWMG's database. This database is to be used ONLY for the purpose of ascertaining if a Generator is already approved for a waste stream and whether a Waste Profile or a Change of Information form is needed. The SWMG may periodically request a copy of the Franchise Collector data base to insure compliance with the agreement.

Change of Information forms are not to be used if the SWMG database shows that expiration has lapsed by 45 days. Waste Profile's are to be used, with a note stating "replacing Waste Profile #00000". The SWMG will remove any expired Waste Profile's from the system after 60 days. The SWMG will also verify and remove any Waste Profile from the system that was reported as cancelled by a Franchise Collector and was not reported as being serviced by another Franchise Collector within 60 days.

WASTE PROFILE RENEWALS

Once a month, the Franchise Collector will receive a print out of those approvals that are due to expire. This information must be reviewed for accuracy and returned to the SWMG by no later than the 15th day of the expiration month. The Franchise Collector is to use this report to report any changes in service address, change in mailing address of the contact (not a billing address), disposal facility, or to complete any other missing information. These reports are also used to remind the Franchise Collector of the approval conditions and facility that the waste is to be taken to. As in the completion of the original Waste Profile form, the renewal information pertains to the service location, not necessarily Franchise Collector billing information.

WEEKLY UPDATES

Once a week, by close of business on Monday, the Franchise Collector is to forward a list of **ALL NEW** business (including “low risk” generators) with waste going in the SWMG system, and those customers that have cancelled their service for an approved waste stream. **The report must contain the business name, business description, service address, service info (container size, waste description, requested disposal facility), start date if new, cancellation date, and reason for cancellation if known.** Do **NOT** report a cancelled account if you are still servicing the business for an approved waste stream but other changes were made in **your** system such as size of dumpster, relocation, new ownership with same name. In other words, if you are still servicing the business for an approved waste stream, do not report it to the SWMG as cancelled. (See Change of Information Instructions.) This process helps to avoid any delays in approvals/rejections when we receive a Waste Profile for a business at the same address already in our system.

Example: John Smith Ent. @ 1234 Apple Ln., Franchise Collector Acct. #9-5903 for an 8 yd. FEL that the SWMG approved for disposal of General Waste, Waste Profile#38857, and Acct. #8- 9657 for a 20 yd. OT for Construction Debris, approved Waste Profile#38947.

1. Company moved to a new location, Hauler closed accounts but opened under new account numbers at new location. **DO NOT report as cancelled as you are still servicing the business for the approved waste stream. Complete a Change of Information form for both waste streams.**
2. Company no longer needs the OT. Company is still being serviced for the FEL. **Report only the OT cancellation. Be specific on the report that only the waste stream/OT was cancelled. Refer to the Waste Profile# 38947 for that waste stream.**
3. The company changed their name, same ownership, to Smith Tools Inc. New accounts were set up. **Do NOT report as cancelled as they are still being serviced for the same FEL and OT waste streams. Complete a Change of Information form.**
4. Company closed down operations completely, out of business. **Report as Cancelled. Give reason if known.**
5. Company closed accounts and switched to another hauler. **Report both accounts as Cancelled.**

Upon notification of a cancelled service, the SWMG will mail a questionnaire to the business in order to verify the cancelled service. The SWMG will also forward a list of those Waste Profile's due to be removed from the system to the Franchise Collector. The Franchise Collector is to review this list and notify the SWMG if the Franchise Collector is servicing any of the locations for the waste in the SWMG system. The list will request a Change of Information form or Waste Profile form on a case by case scenario.

THE COUNTY RESERVES THE RIGHT TO REQUEST ADDITIONAL WASTE PROFILES BASED ON THE WEEKLY UPDATES OF NEW CUSTOMERS.

NOTE: Businesses choosing to haul their own wastes must contact the SWMG for instructions prior to delivering waste to any County disposal facility.

TYPES OF WASTE – Which Form To Use

The Collector/Hauler representative, if pre-completing the form, and the Franchise Collector representative reviewing the form before forwarding to the SWMG, must be aware of the different types of waste and how to separate them. These waste streams should be separated as they go to different disposal facilities. The sales rep should advise the Generator/Customer that the County requires that wastes be separated.

“The 1988 State of Florida “Solid Waste Management Act” mandates that certain types of solid waste, including construction and demolition debris, whole tires, lead acid batteries and white goods, be separated from other solid waste. In addition, the Hillsborough County Solid Waste Management System requires that processible solid waste be separated from other types of solid waste to maximize the utilization of the Resource Recovery Facility. The Mixed Load Surcharge provides a monetary incentive to encourage customers to separate their solid waste.”

NOTE: A SEPARATE FORM MUST BE USED FOR EACH TYPE OF WASTE AS DESCRIBED BELOW.

Processible/Burnable: These materials are what most businesses using Front End Loaders (FEL's) will be disposing of. This waste includes food waste, paper, plastics, cardboard, etc. This waste goes to the incinerator. Wood pallets/skids must be broken down or separated out and be sent to the Yard/Wood Waste processing facility. **USE GENERAL WASTE FORM.**

Yard & Wood Waste: yard waste, branches, pallets, untreated/unpainted wood, etc. This waste goes to the Yard Waste processing facilities. No other waste can be commingled with a load designated/approved as “Wood Waste”. **USE SPECIAL WASTE FORM. (Only original forms will be accepted. No faxed copies.)**

Nonprocessible/Nonburnable: This waste is usually construction type materials such as treated wood, concrete, metals, furniture, etc. This waste goes to the Southeast County landfill. **USE SPECIAL WASTE FORM. (Only original forms will be accepted. No faxed copies.)**

Special Waste: Special Waste is any waste that requires special or extra-ordinary handling, testing, etc. **USE SPECIAL WASTE FORM. (Only original forms will be accepted. No faxed copies.)**

NOTE: A ‘Mixed Load’ surcharge will be assessed at the facilities when any of the above are mixed in the same load. This surcharge will be based on the percentage of one waste to the other. Processible/Burnable waste is to be delivered to the incinerator. If a load arrives there that contains 10%+ NON burnable waste the disposal fee is double the normal processible waste fee... i.e: \$68.16 x 2 or \$136.32 a ton. Non-processible waste is to be delivered to the Southeast County landfill. Any load containing 5%+ processible waste will be charged double the normal rate... i.e.: \$61.81 x 2 or \$123.62 a load. The load may be redirected to the correct disposal facility. Any load containing unapproved Special Waste will be refused.

TABLE 1**FORM REQUIRED**

Agricultural (Nursery, Animal Breeders Stables, Dairies, Growers, etc.)
 Apartment Complexes/Mobile Home Parks using OTs, ROs and Compactors
 Auto Service/Repair/Full Service gas stations
 Car/Truck Wash Facilities
 Computer/Electronics Sales/Service/Repair
 Contractors (Electrical, Painters, Construction, Installers, Repair, Plumbers, A/C, etc.)
 Dry Cleaning/Laundromats facilities
 Glass Sales/Repair (Window, mirrors, etc.)
 Hardware/Home Improvement
 Hospitals
 Industrial (IE: TECO, Cargill, Agrico, etc.)
 Laboratories
 Lawn Service/Landscaping (Office and Yard waste)
 Manufacturing/Fabrication (Paint companies, electronics, welding, etc.)
 Multi-purpose facilities (Strip centers, malls, business parks, storage facilities, etc.)
A TENANT LIST, OR A LIST OF THE TYPES OF BUSINESSES MUST BE ATTACHED TO THE WASTE PROFILE FORM.
 Pest Control
 Pet stores with animals
 Photo Processing
 Pool Supply/Construction
 Retail: any store that has any of the non-processible wastes listed in its inventory, I.E.: Home Depot, Office Depot, Wal-mart, Sherwin Williams, etc. (paint, computers, etc.)
 Veterinary
 Schools: Colleges, Tech, Public/Private (See "not required")
 Warehouses/Wholesale/Distribution (pallets)
 Waste Disposal/Recycling
 Zoos (Lowry Park, Busch Gardens, etc.)

TABLE 2**FORM NOT REQUIRED (see notes)**

Apartment/Condo complexes (see Table 1)
 Auto Sales/Rental (NO Mechanical work)
 Bars/Pubs, Food Service/Restaurants
 Business Offices
 Churches
 Day Care/Nursery
 Entertainment (Sports, movies, etc.)
 Food Service/Restaurants
 Hotels, Motels, Campgrounds, RV Parks
 Professional Offices/Complexes
 Residential/Home Owner
 Retail (Only "High Risk" require a WP to be completed. See Required Retail)

Any generator (commercial or residential, Tables 1 & 2) disposing of Yard/Wood Waste, Non-processible and Special Waste must complete the Special Waste form if the waste is being transported to the SWMG facilities. (See lists of waste on pages 22-25.)

Note: Generators listed in "Table 2" do not have to complete the General Waste form for general waste **except** for RO, OT, and Compactor service due to the risk of unacceptable waste being commingled with General Waste because of the larger sizes of the containers.

CATEGORIES AND DESCRIPTION OF MATERIALS:

CATEGORY "A" WASTES

- 1. Industrial Process & Manufacture** - Waste produced from industrial sources that can be disposed of at the Southeast County Landfill and may require analytical testing, may include but is not limited to:

- Black Beauty Sand Blast
- Filter Cake/Clay
- Alum Residue
- Metal Slag
- Alar Sludge
- Celite - (Diatomaceous Earth)
- Incinerator Ash
- Barricade Batteries (6 vlt & 12 vlt) (Green/Environmentally Friendly)
- Sludges (Dried and Treated - wastewater treatment)
- Spent Lime Dust
- Solidified sulphur
- Plastics & Fiberglass Residue

- 2. Dry Cleaning/ Laundry Establishments** - The generator must indicate whether this material is a solid, liquid or mud-consistency. This would include:

Wastewater Sludges from commercial Laundries/Laundromats sources

CATEGORY "B" WASTES

- 1. Asbestos Containing Materials (ACM)**- These materials may be generated from residential as well as industrial sources and will require special handling. These materials must not be mixed with other materials. They include such wastes as:

- Ceiling Tiles
- Floor Coverings
- Wall board (siding, paneling)
- Roofing Shingles
- Walls/Ceiling Spray Covering
- Fibrous Pipe Insulation

- 2. Medical/ Veterinary/Pharmaceutical** - This waste includes materials produced by medical practitioners, medical clinics, nursing homes, major hospitals, medical testing laboratories and veterinary hospitals and their test labs. Untreated biomedical waste and medical "*sharps*" will not be accepted in the Solid Waste Management System. This waste includes but is not limited to:

- Used Diapers
- Animal Feces (Manure)
- Animal Cadavers
- Test Tubes
- Dried Gauzes/Q-tips
- Specimen Cups
- Throat Cultures

- 3. Automotive Service** - Petroleum contaminated material must not be co-mingled with processible or non-processible waste streams. The Solid Waste Management Group chooses not to accept "*Oily wastes*" in its management system. Acceptable materials include but are not limited to:

Oil Filters (drained) - may be co-mingled with other processible materials (paper rags, plastic, etc.).
Empty Containers
Auto parts & Equipment (free of petroleum)
Abandoned Vehicles
Air Filters
Brake Linings
Used Tires & Tubes

- 4. Agricultural/Nursery Retail** - All soil (dirt) must be separated from these type waste streams, includes but is not limited to:

Artificial Potting Media
Plants/Vegetation
Plastic Potting
Trees/Grass
Plastic Mulch (Farming)
Vermiculite

- 5. Photo Film Processing** - Hazardous photo processing chemicals (liquids) must be separated from this type of waste stream. Examples are as follows:

Empty Fixer Developer (rinsed container)
Replenisher Cartridge
Inked Paper
X-ray Film
Printing Process Stabilizer

- 6. Outdated Beverages & Foodstuffs** - The following waste types may require special handling:

Beer/Wine	}	At the discretion of the SWMG
Canned Goods		
Alcohol Drink Mixes		
Coffee		
Seafood (shrimp hulls, breaded fish)		
Frozen Food Product		

CATEGORY "C" WASTES

- 1. Construction Demolition Debris** - Soil (dirt) will not be accepted in the Solid Waste Management System. The generator will be responsible for separating all soil. This waste includes but not limited to:

Drywall & Finishing Compd (no Chinese DW)	Sheetrock (wall board)
Treated (painted) Wood & Metal Framing	PVC Pipe
Cement Solids	Asphalt
Rock & Gravel	Furniture/White goods
Tar Paper	Carpet/Padding
Brick	

- 2. Retail/Office/Residential** - Recycling and Waste Reduction must be a part of the focus when dealing with these waste types. Examples of this are:

Office Paper
Plastic Items
Damaged & Outdated Foodstuffs
Empty Containers

Grease (from food service grease traps)
Produce (spoiled)
Cardboard Boxes
Household Waste

NON-ACCEPTABLE WASTES

The following materials are considered **unacceptable** in the Solid Waste Management System.

Hazardous Wastes (substances ignitable/flammable, corrosive, reactive or toxic)

Out-of-County Waste Streams

Soil (dirt)

Polychlorinated Biphenols (PCBs)

Liquid Wastes (including but not limited to paints, solvent, fuels and water based materials or products with “free liquids)

Radioactive Materials (i.e.: Smoke detectors)

Bio-hazardous (Biomedical) Wastes (infectious/red bag wastes, sharps/needles, etc.)

Waste Water Sludges (untreated)

Street Sweepings (Containing Soil)

Creosote Treated Waste (Railroad Ties, Telephone/Electrical Poles, other Wood/Timber products, etc.)

Shredder Fluff (shredded or graded materials from Automotive Scrap Industry)

Crankcase Oil (Automotive, lawn mowers, etc.)

Explosives (ammunition, flares, chemicals, shock sensitive materials, etc.)

Toxic Substances containing concentrations of Heavy Metals

55 gal. Commercial Drums (sealed or unsealed, unidentified/unknown Materials)

Computer/Electronic Equipment (from commercial sources)

Cathode Ray Tubes (television picture tubes)

Fluorescent Lamps (bulbs)

ADDITIONAL INFORMATION

I. DEFINITIONS:

- **Hazardous Waste** – any substance that may exhibit ignitability, corrosivity, reactivity or toxicity characteristics as defined in 40 CFR PART 261.
- **RCRA** – (Resource Conservation and Recovery Act) – Governs the management of hazardous waste. Enacted in 1976 to address the problems of how to safely dispose of huge volumes of municipal and industrial waste.
- **D.O.T.** – (Department of Transportation) regulates the transportation of hazardous materials by all modes (rail, highway, air, and pipeline).
- **Industrial Solid Waste** – means solid waste generated by manufacturing or industrial process that is not a hazardous waste. Such waste may include, but is not limited to waste resulting from the following manufacturing process: electric power generation; fertilizer/agricultural chemicals; food and related products and inorganic chemicals.
- **Biohazardous (Biomedical) Waste** – means any solid or liquid waste that may present a threat of infection to humans. Examples include laboratory and veterinarian waste which contain human disease-causing agents; discarded sharps; blood; blood products and body fluids from humans and primates.
- **Processible Waste (Incinerator)** – any combustible (burnable) solid waste including household garbage, cardboard, paper, plastic and wood products.
- **Non-Processible Waste (Landfill)** – non-combustible (non-burnable) solid waste included Construction & Demolition Debris (C&D) such as steel, concrete, brick, asphalt roofing material and ash.
- **Yard/Wood Waste** – Yard waste such as tree trimmings, branches, etc., and untreated/unpainted wood.

II. ACCEPTABLE WASTE STREAMS: The following wastes are some of the materials that may be considered to be acceptable for disposal in the Solid Waste Management System.

Landfill (Non-burnable)

- | | |
|---|--|
| *Filter Cake (diatomaceous earth) | C & DD (rocks, plastic, glass, metal, etc.) |
| *Black Beauty Sand Blast Grit | Household Items (furniture, carpeting, etc.) |
| *Incinerator Ash | Sludges (Dried and Treated - NOT from domesticated wastewater treatment) |
| *Asbestos Containing Material (ACM) | Used Tires |
| **Roofing, Siding, Insulation Materials | Plastic Mulch (Farming) |
| Dead Animals | ***Treated Wood (painted) |
| Empty Containers (metal) | |

Resource Recovery Facility (Burnable)

- Office Paper
- Empty Containers (Plastic)
- Cardboard
- Incidental Wood Products
- Pharmaceuticals
- Household Garbage
- Plastics (toys, food containers, etc.)

****Some Materials may require Analytical Testing***

****Effective January 2006, ALL roofing, siding, insulation materials must have proof that NO Asbestos is present.**

Sludges and other industrial type waste streams err-marked for disposal may also require testing.

*****Yard and Clean Wood waste should be delivered to a Yard/Wood waste processing facility for recycling.**

III. UNACCEPTABLE WASTE STREAMS

The following wastes are some of the materials considered to be unacceptable for disposal in the Solid Waste Management System. **Residents may transport these items to the Household Chemical and Electronics Collections Centers. Commercial generators of the waste listed below should contact the SWMG for proper disposal outlets for this waste.**

Hazardous Wastes (Bio-Hazardous waste is not accepted at any county facility.)

- Fluorescent Bulbs
- Batteries- containing heavy metals such as mercury, cadmium, lead, etc.
- Computer/Electronic Components (televisions, computers, stereos, etc.)
- Creosote Treated Waste
- Biomedical Waste (Bio-hazardous) Waste (infectious, red-bagged, sharps, needles, etc.)
- Liquid Wastes (free liquid sludges, paints, solvents, fuels, water, photo processing chemicals, etc.)
- Wastewater Sludges (untreated)
- Soil (dirt, mud, sod, etc.)
- Materials containing Polychlorinated Biphenols (PCBs)
- Petroleum contaminated products

This form is used by the FH to inform SWMG of any changes in their system for a Generator already approved by the SWMG.



Hillsborough County Solid Waste Management Department WASTE PROFILE CHANGE OF INFORMATION REPORT

This form is to be used for changes in Ownership, OR Name, and/or Hauler, Address, or service information for those waste generators with an approved Waste Profile. Changes in Ownership AND Business Name, or waste streams, require that a new Waste Profile form be completed.

This form is to be completed by the Generator. The "*" sections may be pre-completed by the Hauler.

PLEASE PRINT

1. * APPROVED WASTE PROFILE _____ EXPIRATION DATE: _____
2. * GENERATOR OF BUSINESS NAME (as approved): _____ * SERVICE ADDRESS (as approved): _____

CHANGE OF INFORMATION FORM

4. * TYPE OF CHANGE
OWNERSHIP ☐ ADDRESS ☐ NAME ☐ HAULER ☐ OTHER ☐

NEW INFORMATION:

5. * GENERATOR NAME: _____
6. * SERVICE ADDRESS: _____
7. * TECHNICAL CONTACT: _____ 8. * PHONE #: _____
9. FAX #: _____ 10. E-MAIL: _____
11. * MAILING ADDRESS OF CONTACT (NOT Billing Address, 3rd party, etc.)

12. * CONTAINER SIZE: _____ * FREQUENCY: _____ 13. * HAULER: _____
14. * DESCRIBE WASTE (be detailed): _____

15: REQUIRED IF NEW OWNERSHIP

GENERATOR CERTIFICATION By signing this form, generator certifies that, unless clearly stated above:

1. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
2. This waste does not contain any levels of Polychlorinated Biphenols (PCBs).
3. This waste does not contain any infectious, biomedical, or biohazardous waste materials.
4. This waste does not contain any soil (dirt) material.
5. This form contains a true and accurate description of the waste material to be disposed.
6. All relevant information regarding known or suspect hazards in possession of the generator has been disclosed.

NOTE: SHOULD ANY CHANGES OCCUR IN THE CHARACTER OF THE SOLID WASTE, OR ANY OTHER INFORMATION ABOVE, THE GENERATOR SHALL IMMEDIATELY NOTIFY THE HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT.

SIGNATURE

TITLE

PRINTED NAME

DATE

FOR COUNTY USE ONLY

APPROVED _____ REJECTED _____
DISPOSAL FACILITY _____
SPECIAL INSTRUCTIONS _____
REVIEWED BY: _____ DATE: _____

This form is sent to the FH to verify if still servicing for the waste shown.



**Hillsborough County Solid Waste Management Department
WASTE PROFILE RENEWAL INFORMATION**

This form is to be used for RENEWING/UPDATING a currently approved disposal. This form may be used for changes in addresses, phone number, contact. Please verify that **ALL** info is correct. Complete any missing info. **Make sure that the disposal facility is the same as the disposal facility you are taking the waste to.** If you have any questions, please contact Sue.

This form is to be completed by the Hauler. **PLEASE PRINT**
RETURN TO THE SWMD BY MAIL OR FAX BY NO LATER THAN THE 15TH OF THE RENEWAL MONTH.

**INFORMATION ON THIS FORM PERTAINS TO YOUR SERVICE LOCATION...
NOT BILLING INFORMATION! (NO 3RD PARTY INFORMATION)**

APPROVED WASTE PROFILE: 19854 GW EXPIRATION DATE: 11/30/2005 HAULER: REPUBLIC WASTE SERVICES

HILLS CTY WATER DEPT/LAKE PARK PLANT

COUNTY AGENCY

SERVICE LOCATION NAME (as approved):

TYPE OF BUSINESS

SERVICE ADDRESS: 17316 DALE MABRY HWY N TAMPA 33524

LOCATION CONTACT: WAREHOUSE MANAGER PHONE NUMBER: (813)264-3867

MAILING ADDRESS OF CONTACT (NOT Billing Address, 3rd party, etc.)

17316 DALE MABRY HWY N
TAMPA FL 33524-

APPROVED DISPOSAL FACILITY: RESOURCE RECOVERY FACILITY

APPROVED WASTE: PAPER/PLASTICS/CARDBOARD/FOODSTUFFS, ETC

CONDITIONS: WATER SLUDGES, JET VAC DEBRIS, AND HEADWORKS DEBRIS MUST NOT BE COMINGLED WITH THE
APPROVED WASTE STREAM.

**RENEWAL INFORMATION
FORM**

THIS SECTION IS TO BE USED TO MAKE CHANGES TO THE ABOVE INFORMATION

RENEWAL NOT
NEEDED ☐

CANCELLATION DATE: _____

REASON: _____

ADDITIONAL INFORMATION (Contact Information)

FAX #: _____ E-MAIL: _____

CHANGES:

SERVICE
ADDRESS: _____

MAILING ADDRESS:
(OF CONTACT) _____

PHONE #
(OF CONTACT) _____

THANKS FOR YOUR ASSISTANCE.

PLEASE COMPLETE THIS PAGE AND RETURN IT TO THE SWMD.

I, _____, a Representative of
(print name)

_____, have received and read this document.
(Franchise Collector)

(Signature of Representative) (Date)

NOTE: ALL PRESENT AND FUTURE FRANCHISE COLLECTOR REPRESENTATIVES INVOLVED IN "SETTING UP" SERVICE SHOULD READ THIS BOOKLET AND SIGN THIS PAGE, ACKNOWLEDGING THAT THEY ARE AWARE OF THE PROCEDURES FOR BOTH GENERAL AND SPECIAL WASTE.

APPENDIX E

PHASES I-VI AND CAPACITY EXPANSION AREA FILL SEQUENCING PLANS

**PLEASE SEE SEPARATELY
BOUND, FULL-SIZE
FILL SEQUENCING PLANS**

APPENDIX F

LANDFILL GAS MONITORING POINTS

**HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL – LFG READINGS**

ADMINISTRATION BUILDING

	Methane Gas	LEL	Carbon Dioxide	Oxygen	Balance Gas
SP-1					
SP-2					
SP-3					
SP-4					
SP-5					
SP-6					
SP-7					
SP-8					

MAINTENANCE BUILDING

	Methane Gas	LEL	Carbon Dioxide	Oxygen	Balance Gas
SP-9					
SP-10					
SP-11					
SP-12					

LEACHATE TREATMENT PLAN

	Methane Gas	LEL	Carbon Dioxide	Oxygen	Balance Gas
SP-13					
SP-14					
SP-15					

LANDFILL GAS PERIMETER MONITORING POINT

	Methane Gas	LEL	Carbon Dioxide	Oxygen	Balance Gas	Objectional Ambient Odor (Y/N)
LFG-1						Y/N
LFG-2						Y/N
LFG-3						Y/N
LFG-4						Y/N

TECHNICIAN SIGNATURE: _____

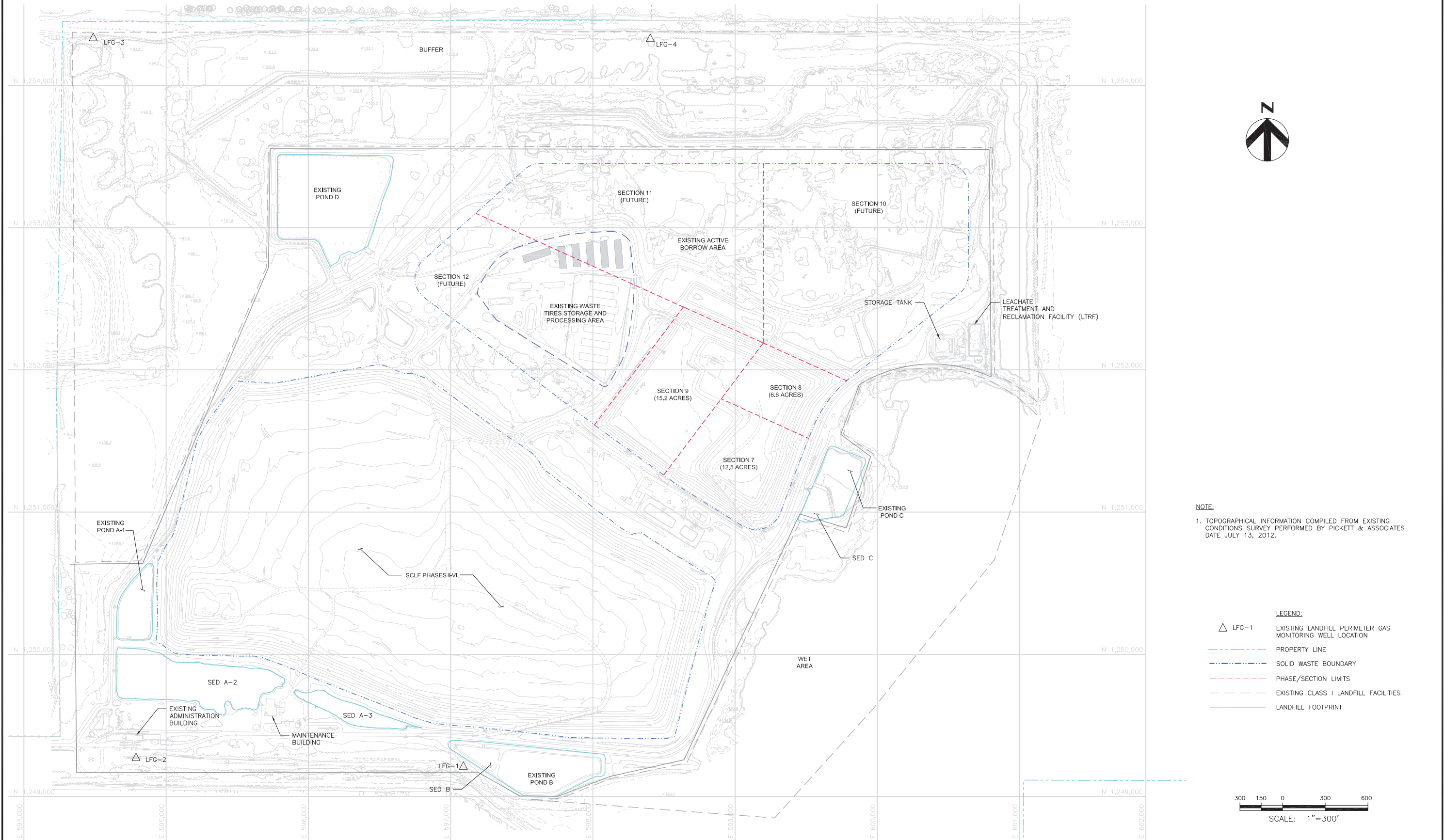
SUPERVISOR SIGNATURE: _____

DATE: _____

COMMENTS: _____

Legend: SP = Ambient Sample Point

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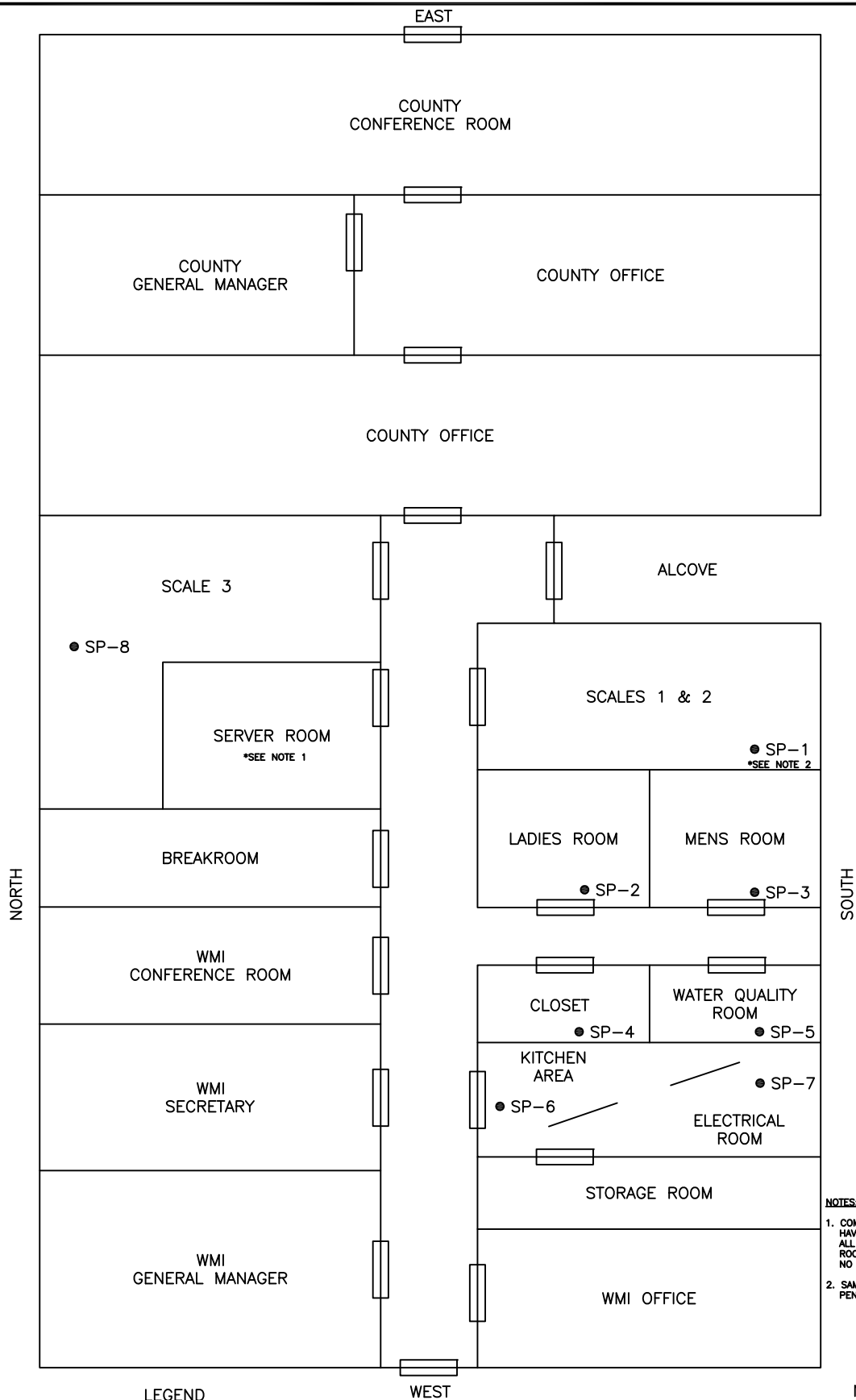
NOTE:
1. TOPOGRAPHICAL INFORMATION COMPILED FROM EXISTING
CONDITIONS SURVEY PERFORMED BY PICKETT & ASSOCIATES
DATE JULY 13, 2012.

- LEGEND:
- △ LFG-1 EXISTING LANDFILL PERIMETER GAS MONITORING WELL LOCATION
 - PROPERTY LINE
 - SOLID WASTE BOUNDARY
 - PHASE/SECTION LIMITS
 - EXISTING CLASS I LANDFILL FACILITIES
 - LANDFILL FOOTPRINT

LANDFILL GAS PERIMETER MONITORING WELLS

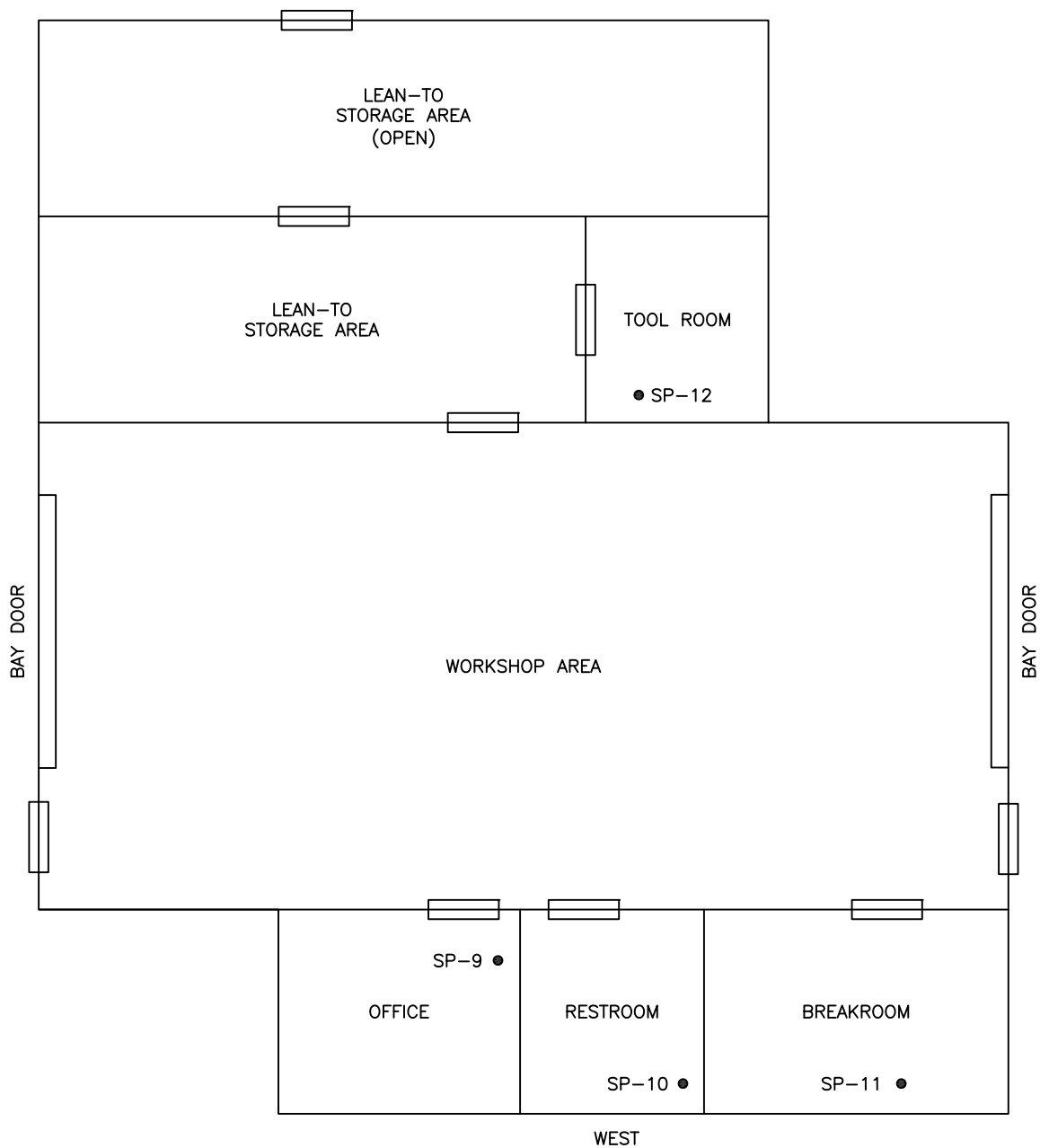
HILLSBOROUGH COUNTY, FLORIDA

FIGURE
F-1



- NOTES:
1. COMPUTER ROOM DOES NOT HAVE FLOOR PENETRATIONS. ALL CONDUITS ENTER THE ROOM THROUGH THE CEILING. NO GAS SAMPLING REQUIRED.
 2. SAMPLE NEAR VACUUM TUBE PENETRATION IN FLOOR.

ADMINISTRATION BUILDING LFG MONITORING POINTS	
HILLSBOROUGH COUNTY, FLORIDA	FIGURE F-2



LEGEND

- SP-10 INDICATE GAS SAMPLE POINT
— DOORWAY

NOT TO SCALE

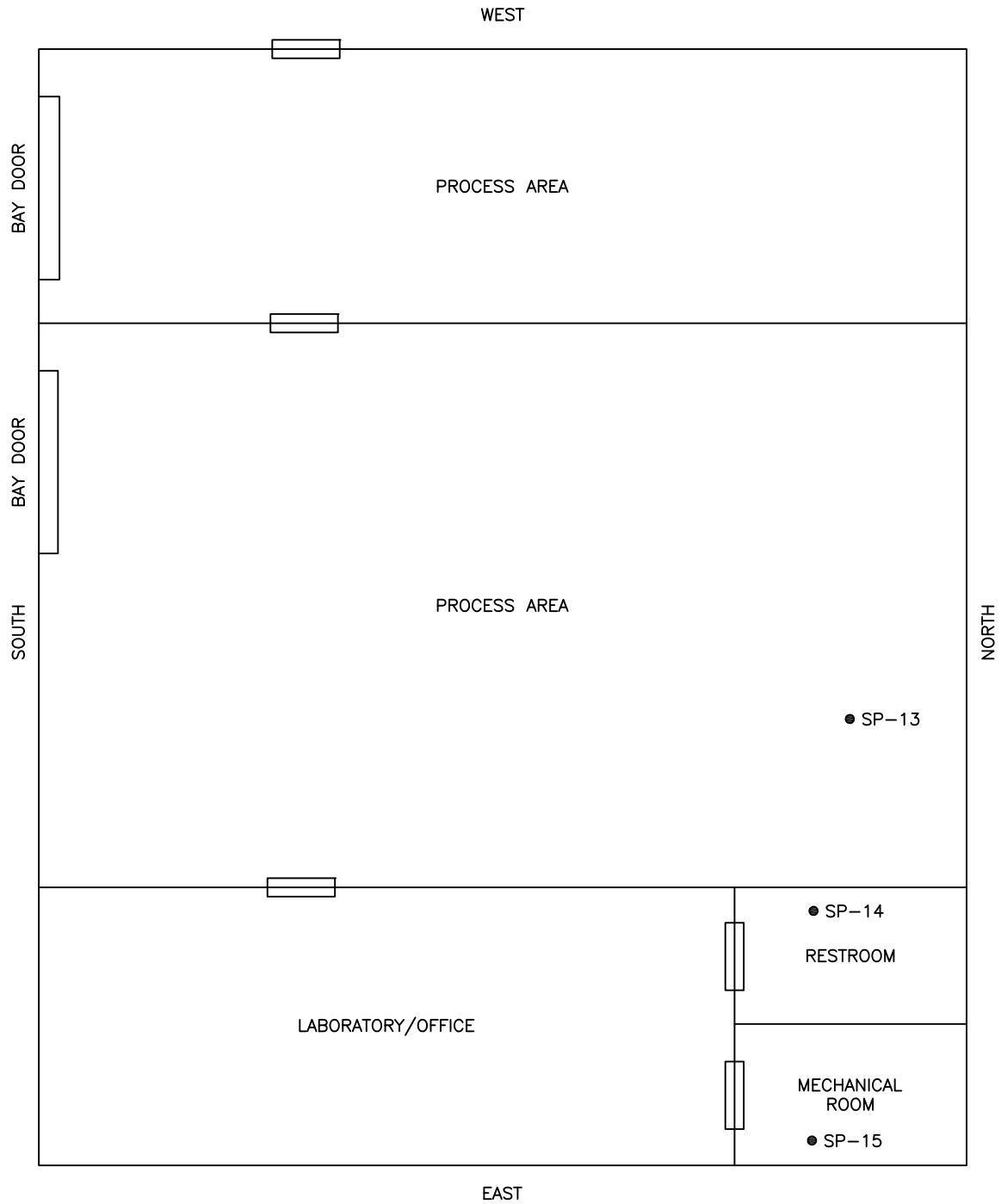


**MAINTENANCE BUILDING
LFG MONITORING POINTS**

HILLSBOROUGH COUNTY, FLORIDA

**FIGURE
F-3**

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LEGEND

- SP-14 INDICATE GAS SAMPLE POINT
- DOORWAY

NOT TO SCALE

**LTRF OFFICE
LFG MONITORING POINTS**

HILLSBOROUGH COUNTY, FLORIDA

FIGURE
F-4



APPENDIX G

STARTUP, SHUTDOWN, AND MALFUCTION (SSM)
PLAN

Startup, Shutdown,
and Malfunction Plan
Municipal Solid
Waste Landfill GCCS

Prepared by:
SCS Engineers

01/19/2010



**MUNICIPAL SOLID WASTE LANDFILL
GAS COLLECTION AND CONTROL SYSTEM (GCCS)
STARTUP, SHUTDOWN, AND MALFUNCTION PLAN
SOUTHEAST COUNTY LANDFILL
Hillsborough County, Florida**

Prepared by:

SCS ENGINEERS
4041 Park Oaks Blvd., Suite 100
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Southeast County Landfill
Date of Issuance: January 19, 2010

GAS COLLECTION AND CONTROL SYSTEM (GCCS)

STARTUP, SHUTDOWN, AND MALFUNCTION (SSM) PLAN

SOUTHEAST COUNTY LANDFILL Hillsborough County, Florida

This Startup, Shutdown, and Malfunction (SSM) Plan was prepared by SCS Engineers in order to comply with the requirements of 40 CFR 63.6(e)(3), as this facility is subject to *40 CFR Part 63, Subpart AAAA, the National Emission Standard for Hazardous Air Pollutants (NESHAPs) for Municipal Solid Waste (MSW) Landfills*. The SSM Plan contains all of the required elements set forth within *40 CFR 63.6(e)*.

This SSM Plan will be revised if the procedures described herein do not adequately address any malfunction or startup/shutdown events that occur at the facility. A copy of the original plan and all revisions/addenda will be kept on file at the facility for at least five (5) years. The Site/Facility Manager is responsible for assuring that the most recent copy of this SSM Plan is made available to all personnel involved with the landfill gas (LFG) collection and control system (GCCS) at Southeast County Landfill as well as to appropriate regulatory agency personnel for inspection.

Name of Plan Preparer: Daniel R. Cooper, P.E. 1/19/2010
Name Date

Approved:
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Name Date



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APPENDICES

- A Common Causes and Response Actions for GCCS Malfunctions
- B SSM Plan Reporting Forms
- C SSM Procedures
 - C-1 Manual Startup Procedures for Utility Flare & Gas Mover System
 - C-2 Manual Shutdown Procedure for Utility Flare
- D Glossary

ADDENDA

- I. Southeast County Landfill Gas Collection Control System Design Plan

REFERENCES

Hillsborough County Southeast County Landfill Mechanical Catalogues
Hillsborough County Southeast County Landfill Title V Operation Permit No. 0570854-006-AV
Hillsborough County Southeast County Landfill Solid Waste Permit O&M Plan



1 Revision History

Add the effective date of the most-recent revision to the list below. Do not overwrite or delete any dates. This is intended to be a complete record of all revisions made to this plan, and assists in making certain that all plan versions are retained for at least five (5) years as required by §63.6(e)(3)(v). Please note that this SSM Plan supersedes any previous version that may have been prepared.

Date of Initial Issuance
January 18, 2010
Revision Dates



2 INTRODUCTION

2.1 Purpose and Scope

The municipal solid waste (MSW) landfill owner or operator of an affected source must develop and implement a written Startup, Shutdown, and Malfunction (SSM) Plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning processes; and air pollution control and monitoring equipment used to comply with the relevant standard. The purpose of the SSM Plan is to:

- Ensure that, at all times, the MSW landfill owner or operator operates and maintains the affected source, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;
- Ensure that MSW landfill owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
- Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

A glossary of terms used throughout or applicable to this SSM Plan is included in Appendix D.

2.2 Description of SSM Plan

This SSM Plan has been divided into three major sections comprising the major elements related to startup, shutdown, and/or malfunction of a landfill gas (LFG) collection and control system (GCCS) at a MSW landfill. Malfunction events are distinct events when the GCCS is not operating in accordance with NSPS requirements and which result, or have the potential to result, in an exceedance of one or more emission limitations or operational standards under the NSPS. Startup and shutdown events are generally planned events associated with system repair, maintenance, testing, and upgrade, and may or may not be related to or occur in association with a malfunction of the GCCS.

2.3 Site Background

The Southeast Central Landfill is an existing affected source under the Maximum Achievable Control Technology (MACT) rule for MSW landfills, which previously began operating its GCCS on an "exempt" Title V Air Permit basis. New construction commenced on March 11, 2009 and began operating its GCCS on December 16, 2009. As such, this SSM Plan is required



to be implemented for the Southeast County Landfill by January 19, 2009 for compliance with NSPS MACT regulations. This SSM Plan meets or exceeds this requirement

2.4 Management Approval

In accordance with the requirements of 40 CFR 63.6(e)(3)(i), this SSM Plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. The management of the Southeast County Landfill fully understands and acknowledges the SSM Plan requirements of the MACT rule. This SSM Plan has been developed to specifically address these requirements as summarized above.

2.5 Revisions

This SSM Plan will be revised if the procedures described herein do not adequately address any malfunction or startup/shutdown events that occur at the facility. A copy of the original plan and all revisions/addenda will be kept on file at the facility for at least five (5) years. The County is responsible for assuring that the most recent copy of this SSM Plan is made available to all personnel involved with the GCCS at the site as well as to appropriate regulatory agency personnel for inspection.

The table at the front of this document shall be completed upon any future revisions in order to document the most recent version of the Plan.

2.6 Recordkeeping and Reporting

The SSM Plan is included as part of the facility's Part 70 Title V operating permit. However, any revisions made to the SSM Plan do not constitute Title V permit revisions. If the SSM Plan is revised, previous versions must be available at the site for inspection or copying by the Florida Department of Environmental Protection (FDEP) for five years after the revisions are made.

In addition, Hillsborough County is required to submit semiannual SSM Plan reports detailing actions taken during startups, shutdowns, and malfunctions of the affected source that are consistent with the site's SSM Plan. Also, immediate SSM Plan reports are required any time an action is taken during a startup, shutdown, or malfunction that is not consistent with the site's SSM Plan on file. Later sections of this Plan provide further information on startup, shutdown, and malfunction reporting.



2.7 Site Equipment Subject To This SSM Plan

The following components of the GCCS are subject to this SSM Plan:

Table 2-1. GCCS Components Subject to SSM Plan

Collection wells and other collectors
Lateral and header extraction piping
LFG mover equipment
Flame monitoring and recording equipment
Flow monitoring and recording equipment
Flare automated controls
Flare



3 STARTUP PLAN

This section details procedures for the startup of the GCCS to ensure that, at all times, good safety and air pollution control practices are used for minimizing emissions to the levels required by the relevant standards.

Pursuant to the requirements of the NSPS for MSW landfills, a GCCS must be installed and operated when the landfill exceeds a threshold of 50 Mg/year NMOC and meets all the applicable criteria for a controlled landfill.

3.1 How to Identify a GCCS Startup Event

The regulatory definition of "startup" reads as follows:

"Startup means the setting in operation of an affected source or portion of an affected source for any purpose." (§63.2)

GCCS startup operations generally include startup of gas mover equipment, LFG control devices, and any ancillary equipment that could affect the operation of the GCCS (e.g., power supply, air compressors, etc.). In accordance with the requirements of 40 CFR 63.6(e)(3)(i), this SSM Plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard.

3.2 What to do When the GCCS is Started-Up

The following provides a summary of typical response actions for startup of the GCCS.

3.2.1 Gas Mover and Collection System

The following activities may have the potential to emit regulated air pollutants to the atmosphere during startup of the collection system portion of GCCS: (1) startup of gas mover equipment; (2) purging of gases trapped within piping system prior to normal operation; (3) repair of system leaks discovered during startup, (4) connection of the leachate collection risers (LCRS) to the GCCS; and (5) all other activities after construction of the system but prior to fulltime operation, which could release HAPs from the collection system. These activities would be subject to the SSM Plan portion of the SSM Plan.

During such activities, work shall progress such that air emissions are minimized to the greatest extent possible by:



- Temporarily capping pipes venting gas if such capping does not impact safety or the effective construction of the system.
- Minimizing surface area allowing gas to emit to the atmosphere to the extent that it does not impact safety or the effective construction of the system.
- Ensuring that other parts of the system, not impacted by the activity, are operating in accordance with the applicable requirements of NSPS.
- Limiting the purging of piping to as short duration as possible to ensure safe combustion of the gas in the control device.

GCCSs, once installed, are “closed” systems designed to prevent the uncontrolled release of LFG to the atmosphere. The network of piping installed at the site connects each extraction point with the control device(s) with no open vents located anywhere in the collection system.

Portions of active collection systems or individual extraction points may be isolated by valves installed in the system from time to time and subsequently opened. Opening these valves shall not be considered a startup of the active collection system, unless such an activity causes the venting of gas to the atmosphere. If the activity results in emissions to the atmosphere, the actions listed above shall be followed.

The operation of the collection system, once installed, shall be consistent with the provisions of the NSPS as well as the GCCS Design Plan, which has been developed and approved for the facility.

3.2.2 Gas Control System

Personnel shall follow the procedures as identified below when starting the respective control systems. Gas control systems operating at MSW landfills normally undergo planned startups. However, flare systems are designed for unattended automatic operation.

A startup checklist for manual and automatic startups is provided on the Startup Report Form included in Appendix B. However, it is recommended that startups be conducted in the automatic mode. System should not be left unattended in Manual mode since safety shutdowns are bypassed.

Additional startup information is included by reference in Appendix C-1 for LFG Specialties Utility Flare System Unit 2162.

3.3 What to Record for All Startup Events

In the event the control device does not restart automatically, the operator shall record the following information on the attached **Startup Report Form** (Appendix B):



- The date and time the startup occurred.
- The duration of the startup.
- The actions taken to affect the startup.
- Whether procedures in this SSM Plan were followed. If the procedures in the SSM Plan were not followed, a **SSM Plan Departure Report Form** (Appendix B) must also be completed.
- If an applicable emission limitation was exceeded, a description of the emission standard that was exceeded or had the potential to be exceeded.

3.4 Whom to Notify at the Facility in Case of a Startup Event

For all startup events the following persons must be notified:

- The Site/Facility Manager, Engineer, or other appropriate Facility Personnel should be notified immediately of the startup.
- The Site/Facility Manager, Engineer, or other appropriate Facility Personnel should be notified within a reasonable timeframe of progress of the diagnosis and resolution of the startup.
- The Site/Facility Manager or Engineer for the site should be notified when the alternative timeframe for startup has been established if it is outside of the timeframes currently allowed by the NSPS for particular compliance elements.
- The **Startup Report Form** must be initially prepared upon startup, or discovery of an automatic startup, and implementation of the SSM Plan. The form must be finalized by the appropriate Facility Personnel on duty upon successful implementation of the SSM Plan and submitted to the Site/Facility Manager or Engineer. The original form should be retained in the Operation files for five (5) years.

3.5 What to Report for a Startup Event

- If the actions taken during the startup were consistent with this SSM Plan, file the necessary information in your semi-annual SSM report (*within 30 days following the end of each 6-month period*) with the following information included:
 1. Name and title of Site/Facility Manager or other appropriate Facility Personnel;



2. Certifying signature of the owner/operator or other responsible official (Note that "responsible official" has the same meaning as under the Title V permitting program);
 3. Statement that the actions taken during the startup or shutdown were consistent with the SSM Plan; and
 4. If the SSM Plan was revised during the reporting period, to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.
- If the actions taken during the startup were not consistent with this SSM Plan, but the startup did not result in an exceedance of an applicable emission, the responsible official shall state this in the semi-annual SSM report (*within 30 days following the end of each 6-month period*) with the following information included:
 1. Name and title of Site/Facility Manager;
 2. Certifying signature of the owner/operator or other responsible official;
 3. Statement that the actions taken during the startup were not consistent with the SSM Plan, but the source did not exceed any applicable emissions limit standards;
 4. Number, duration, and description of startup events; and
 5. If the SSM Plan was revised during the reporting period to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.
 - If the actions taken during a startup were not consistent with this SSM Plan, and the startup resulted in an exceedance of an applicable emission standard, the Site/Facility Manager or Other appropriate Facility Personnel must report the actions taken to the enforcing authority (FDEP Southwest District) by telephone or facsimile transmission within two (2) working days after the startup. A letter must then be sent to the enforcing authority within seven (7) working days after the startup. The letter should be sent by certified or registered mail or overnight delivery service, and must include the following information:
 1. Name and title of Site/Facility or Other appropriate Facility Personnel;
 2. Certifying signature of the owner/operator or other responsible official (Note that "responsible official" has the same meaning as under the Title V permitting program);
 3. A copy of the **Startup Report Form**;
 4. Detailed explanation of the circumstances of the startup;
 5. The reasons the SSM Plan was not adequate; and whether any excess emissions and/or parameter monitoring exceedances is believed to have occurred during the event.
 6. A copy of the **SSM Plan Departure Report Form**.
 7. Revise the SSM plan within 45 days of the non-conforming event.



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Hillsborough County must retain documentation of the conversation with FDEP or fax regarding the 2-day notification, the 7-day letter, and proof of receipt by FDEP of the 7-day letter in the site's files for a minimum of five years. If the actions taken during startup were not consistent with this SSM Plan, the SSM Plan must be revised. The revised SSM Plan shall include the new actions to be taken for startup of the GCCS during similar startup events. If the revisions to the SSM Plan alter the scope of the process activities at Hillsborough County Solid Waste Management Facility or otherwise modify the applicability of any emission limit, work practice requirement, or other requirement in the MACT rule and/or the NSPS, the revised SSM Plan is not effective until written notice has been provided to the permitting authority describing the SSM Plan revision(s). The revised SSM Plan shall be included in the next semiannual SSM Plan Report.



4 Shutdown Plan

This section details procedures for the shutdown of the GCCS to ensure that, at all times, good engineering, safety and air pollution control practices are used for minimizing emissions to the levels required by the relevant standards.

Pursuant to the requirements of the NSPS for MSW landfills, a GCCS cannot be removed unless the landfill meets all the applicable criteria for removal of collection and control system in *40 CFR 60, Subpart WWW*.

4.1 How to Identify a GCCS Shutdown Event

The regulatory definition of “shutdown” reads as follows:

“**Shutdown** means the cessation of an affected source or portion of an affected source for any purpose.” (§63.2)

GCCS shutdown events generally include shutdown of the gas collection system, the gas control system, and any ancillary equipment that could affect the operations or monitoring of the GCCS. There are two general types of shutdown events, those that are initiated manually by an operator (e.g. for purposes of system maintenance) and those that are initiated automatically by the control system in response to certain monitored conditions. Each of these types of shutdown events is discussed below. In accordance with the requirements of 40 CFR 63.6(e)(3)(i), this SSM Plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. Operational exceptions are identified in the Title V permit modification and GCCS Design Plan.

Table 4-1. Potential Events Necessitating Shutdown of the GCCS

Control Device Maintenance, Repair, or Cleaning
Addition of New GCCS Components
Extraction Well Raising
Movement of LFG Piping to Accommodate New Components or Filling Operations
Source Testing
Gas Mover Equipment Maintenance, Repair, or Cleaning
Gas Processing Treatment System Equipment Maintenance, Repair, or Cleaning
Ancillary Equipment (e.g., compressors, etc.) Maintenance, Repair, or Cleaning
New Equipment Testing and Debugging
Shutdown and Subsequent Startup to Address Malfunctions or Other Occurrences
Planned Electrical Outages



Table 4-1. (continued)

Power generation equipment maintenance, repair, and cleaning
Other Site-Specific Shutdown Events

4.1.1 Manual Shutdowns

Table 4-1 includes events that may necessitate a shutdown of the GCCS at a MSW Landfill. This list should not be considered exhaustive. In the event a manual shutdown is required, the procedures specified in Section 4.2 for manual shutdowns should be followed and documented.

4.1.2 Automatic Shutdowns

The GCCS may automatically shutdown one or more of its components in response to monitored conditions that fall outside of set-point ranges. In these instances, the shutdown is completely automatic, and there are no shutdown steps that need to be taken by facility personnel. Personnel will need to evaluate the cause of the shutdown and initiate corrective action as needed with a goal of restarting the system in a safe and timely manner.

Some events that may cause the GCCS to shutdown automatically are listed in Table 4-2 below. This list should not be considered exhaustive.

Table 4-2. Potential Causes of Automatic Shutdowns of the GCCS

Loss of gas flow to the flare
High inlet gas temperature
Flame sensor detects loss of flame
Elevated flame arrestor temperature
High liquid level in knockout pot
Loss of power from the grid
Treatment system component shutdowns
Power generation equipment shutdowns

4.2 Actions to Take When The GCCS Is Shutdown

4.2.1 Collection System

GCCSs, once installed, are “closed” systems designed to prevent the uncontrolled release of LFG to the atmosphere. The network of piping installed at the site connects each extraction point with the control device(s) with no open vents located anywhere in the collection system.

Portions of active collection systems or individual extraction points may be isolated by valves installed in the system from time to time. Periodic or occasional closing of individual valves on



the active collection system for valid operational reasons shall not be considered a shutdown of the overall GCCS for purposes of this Plan.

4.2.1.1 Gas Control System – Automatic Shutdown

Automatic shutdowns of the flare system (including the blower and other related equipment) do not involve any operator interaction. Therefore, there is no procedure to be followed for an automatic shutdown, and no need to document whether established procedures were or were not followed. A shutdown report shall be generated for each automatic shutdown. These reports should indicate that the event that occurred was an automatic shutdown. No procedures checklist need be completed.

4.2.1.2 Gas Control System – Manual Shutdown

Personnel shall follow the procedures identified in this section when shutting down the respective control devices. Control devices operating at MSW landfills normally undergo planned shutdown for the various events listed above.

Control device shutdown procedures for Manual Shutdown are located Appendix C-2 and included on the **Shutdown Report Form**, (Appendix B).

4.3 What To Record For All Shutdown Events

The operator should record the following information on the attached **Shutdown Report Form** (Appendix B):

- The date and time the shutdown occurred
- The duration of the shutdown
- The actions taken to effect the shutdown
- Whether procedures in this SSM Plan were followed. If the procedures in the plan were not followed, a **SSM Plan Departure Report Form** must also be completed
- If an applicable emission limitation was exceeded, a description of the emission standard that was exceeded or had the potential to be exceeded

4.4 Whom to Notify at the Facility in Case of a Shutdown Event

- The Site/Facility Manager, Engineer, or other designated personnel should be notified immediately of the shutdown.
- The Site/Facility Manager, Engineer, or other designated personnel should be notified within a reasonable timeframe of progress of the diagnosis and resolution of the shutdown.



- The Site/Facility Manager, Engineer, or other appropriate personnel should be notified when the alternative timeframe for shutdown has been established if it is outside of the timeframes currently allowed by the NSPS for particular compliance elements.
- The **Shutdown Report Form** should be initially prepared upon shutdown, or discovery of an automatic shutdown, and implementation of the SSM Plan. The form should be finalized by the operator on duty upon successful implementation of the SSM Plan and submitted to the Site/Facility Manager or other appropriate Personnel. The original form should be retained in the landfill files for five (5) years.

4.5 What to Report for a Shutdown Event

- If the actions taken during the shutdown were consistent with this SSM Plan, file the necessary information in your semi-annual SSM report (*within 30 days following the end of each 6-month period*) with the following information included:
 1. Name and title of Site/Facility Manager.
 2. Certifying signature of the owner/operator or other responsible official (Note that "responsible official" has the same meaning as under the Title V permitting program.
 3. Statement that the actions taken during the shutdown were consistent with the SSM Plan; and
 4. If the SSM Plan was revised during the reporting period to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.
- If the actions taken during the shutdown were not consistent with this SSM Plan, but the shutdown did not result in an exceedance of an applicable emission, the responsible official shall state this in the semi-annual SSM report (*within 30 days following the end of each 6-month period*) with the following information included:
 1. Name and title of Site/Facility Manager;
 2. Certifying signature of the owner/operator or other responsible official;
 3. Statement that the actions taken during the shutdown were not consistent with the SSM Plan, but the source did not exceed any applicable emissions limit standards;
 4. Number, duration, and description of shutdown events; and
 5. If the SSM Plan was revised during the reporting period to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.
- If the actions taken during a startup were not consistent with this SSM Plan, and the shutdown resulted in an exceedance of an applicable emission standard, the



Site/Facility Manager or Other appropriate Hillsborough County Facility Personnel must report the actions taken to the enforcing authority by telephone or facsimile transmission within two (2) working days after commencing the actions that were inconsistent with the plan. A letter must then be sent to the enforcing authority within seven (7) working days after the startup or shutdown. The letter should be sent by certified or registered mail or overnight delivery service, and must include the following information:

1. Name and title of Site/Facility Manager;
2. Certifying signature of the owner/operator or other responsible official (Note that "responsible official" has the same meaning as under the Title V permitting program. See previous corporate guidance on this topic.);
3. A copy of the **Shutdown Report Form**;
4. Detailed explanation of the circumstances of the shutdown;
5. The reasons the SSM Plan was not adequate; and whether any excess emissions and/or parameter monitoring exceedances is believed to have occurred during the event.
6. A copy of the **SSM Plan Departure Report Form**.
7. Revise the SSM plan within 45 days of the non-conforming event.

Hillsborough County must retain documentation of the conversation with FDEP or fax regarding the 2-day notification, the 7-day letter, and proof of receipt by FDEP of the 7-day letter in the site's files for a minimum of five years. If the actions taken during startup were not consistent with this SSM Plan, the SSM Plan must be revised. The revised SSM Plan shall include the new actions to be taken during similar GCCS shutdown events in the future. If the revisions to the SSM Plan alter the scope of the process activities at Hillsborough County Solid Waste Management Facility or otherwise modify the applicability of any emission limit, work practice requirement, or other requirement in the MACT rule and/or the NSPS, the revised SSM Plan is not effective until written notice has been provided to the permitting authority describing the SSM Plan revision(s). The revised SSM Plan shall be included in the next semiannual SSM Plan Report.



5 Malfunction Plan

5.1 How to Identify a GCCS Malfunction

The regulatory definition of “malfunction” reads as follows:

“**Malfunction** means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.” (§63.2, revised 5/30/03)

The following list includes events that may constitute a malfunction of the GCCS at Southeast County Landfill. The cause of these events should be investigated immediately in order to determine the best course of action to correct the malfunction. Each of these malfunctions could have multiple causes that need to be evaluated and possibly considered. It is the intent of this SSM Plan to include all possible causes for the specific malfunction events. Common malfunction events for LFG collection and control systems are listed in Table 5-1.

Table 5-1. Potential Malfunction Events

Possible Malfunction	Potential Resulting Emission Limitation Exceedance [citation]
Gas Mover/Power Generation Equipment Malfunction with resulting loss of LFG flow	GCCS downtime of greater than 5 days [60.755(e)]
Loss of Electrical Power	GCCS downtime of greater than 5 days [60.755(e)]
Loss of Flame at the Flare	Control device downtime of greater than 1 hour with free venting of LFG [60.755(e)]
Malfunction of Flow Measuring/Recording Device	Failure to record flow [60.756(c)(2)(i)]
Collection Well and Pipe Failures	Failure to route collected gases to the control device. [60.753(e)]
Condensate Pump Failure (resulting in gas collection line blockage)	Failure to route collected gases to the control device. [60.753(e)]



Table 5-1. (continued)

Possible Malfunction	Potential Resulting Emission Limitation Exceedance [citation]
Loss of flame-sensing instrument at flare tip.	Failure to monitor presence of pilot light or flare flame [60.756(c)(1)]
Failure of flare continuous-flame-presence recorder	Failure to continuously record the presence of a flame or pilot light [60.758(c)(4)]
Loss of air compressor	GCCS downtime of greater than 5 days [60.755(e)]
Loss of electricity	Multiple, including possibly:
	• Failure to record flow [60.756(c)(2)(i)]
	• Failure to route collected gases to the control device. [60.753(e)]
	• Failure to continuously record the presence of a flame or pilot light [60.758(c)(4)]

If the occurrence does not result in an exceedance of an applicable emission limitation contained in the NSPS or MACT rules, it is **not required to be corrected in accordance with this SSM Plan**, although use of the plan may still be advisable.

Malfunctions should be considered actionable under this SSM Plan whether they are discovered by the MSW landfill owner or operator during normal operations or by a regulatory agency during compliance inspections.

The operator should follow all the corrective action, notification, record keeping, and reporting procedures described herein in case of malfunction of the GCCS. The various malfunction reference sections of this SSM Plan are provided in Table 5-2 below:

Table 5-2. Malfunction Procedure Reference

Possible Malfunction	Section
Loss of LFG Flow/Gas Mover Malfunction	5.3
Loss of Electrical Power	5.4
Low Temperature Conditions at Control Device	5.5
Loss of Flame at the Control Device	5.6
Malfunction of Flow Monitoring/Recording Device	5.7
Malfunction of Flame Monitoring/Recording Device	5.8
Collection Well and Pipe Failures	5.9
Possible Malfunction	Section
Other Control Device Malfunctions	5.10



Malfunctions of Field Monitoring Equipment	5.11
Malfunction of the Automatic Spark Ignition System	5.12

5.2 Actions To Take When The GCCS Malfunctions - All Malfunctions

- Determine whether the malfunction has caused an exceedance, or has the potential to cause an exceedance, of any applicable emission limitation contained in the NSPS/EG or MACT.
- Identify whether the malfunction is causing or has caused excess emissions to the atmosphere. If excess emissions are occurring, take necessary steps to reduce emissions to the maximum extent possible using good air pollution control practices and safety procedures.
- Contact the Site/Facility Manager for the site immediately and proceed with the malfunction diagnosis and correction procedures described in Appendix A ("Common Causes and Response Actions for GCCS Malfunctions") for each specific malfunction.
- Site-specific malfunction and/or troubleshooting procedures are contained in the documents or appendices referenced below. Personnel shall follow these procedures when addressing a malfunction of a collection system or control device.
- If the procedures in this SSM Plan do not address or adequately address the malfunction that has occurred, the operator should attempt to correct the malfunction with the best resources available. The Site/Facility Manager and Hillsborough County Landfill Operations Personnel should be notified of this situation immediately. Complete a **SSM Plan Departure Report Form** (Appendix B) as discussed in Section 5.14. The SSM Plan must be updated to better address this type of malfunction.
- Notify the Site/Facility Manager of the progress of the diagnosis and correction procedures and status of the malfunction as soon as practicable.
- **If the GCCS malfunction cannot be corrected within the time frame specified in the NSPS/EG, notify the Site/Facility Manager for the site and proceed to shutdown the control device and/or the process(es) venting to the flare control device, if this has not already occurred automatically.**
- If the GCCS malfunction cannot be corrected within the time frame allowed by the NSPS/EG rule for each specific malfunction, define the appropriate alternative timeframe for corrective action that is reasonable for the type of repair or maintenance that is required to correct the malfunction.



- If the GCCS malfunction cannot be corrected within alternative timeframe for corrective action specified above, notify the Site/Facility Manager for the site and conduct the appropriate record keeping and reporting required for deviations of the MACT rule and Title V permit.
- Once the malfunction is corrected, notify the Site/Facility Manager for the site as soon as the system is operational.
- Complete the **Malfunction Report Form** (Appendix B) after the malfunction diagnosis and correction procedures are completed.
- If the procedures in this SSM Plan do not address or adequately address the malfunction that has occurred, the operator should note the circumstances and the actual steps taken to correct the malfunction in the **Malfunction Report Form** (Appendix B). This SSM Plan will need to be revised based on this information, as described in Section 5.13 below.
- Follow procedures in Sections 5.13 through 5.15, as appropriate, to adequately document, notify, and report the malfunction and corrective action.

5.3 Loss of LFG Flow/Gas Mover Malfunction

- Follow the procedures in Section 5.2, above.
- Check to see if the control device has shutdown. If control device has shutdown, make sure that gas mover equipment has shutdown to prevent free venting of LFG. Attempt to restart control device to determine if system will remain operational.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction cannot be corrected within 5 days, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting if the malfunction cannot be corrected within the established timeframe.

5.4 Loss of Electrical Power

- Follow the procedures in Section 5.2, above.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in **Appendix A**.



- If the malfunction cannot be corrected within the time frame allowed by the NSPS/EG rule, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting if malfunction cannot be corrected within the established timeframe.

5.5 Low Temperature Conditions at the Control Device

- Follow the procedures in Section 5.2, above.
- Check to see if the control device has shutdown. If control device has shutdown, make sure that gas mover equipment has shutdown to prevent free venting of LFG. Attempt to restart control device to determine if system will remain operational.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction causes the GCCS to go off-line and cannot be corrected within the time frame allowed by the NSPS/EG rule, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting if the malfunction cannot be corrected within the established timeframe.

5.6 Loss of Flame at the Control Device

- Follow the procedures in Section 5.2, above.
- Check to see if the control device has shutdown. If control device has shutdown, make sure that gas mover equipment has shutdown to prevent free venting of LFG. Attempt to restart control device to determine if system will remain operational.
- If system will not restart, follow also the procedures in Section 5.3.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction cannot be corrected within the time frame allowed by the NSPS/EG rule, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting.



5.7 Malfunctions of Flow Monitoring/Recording Device

- Follow the procedures in Section 5.2, above.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction cannot be corrected in the time frame allowed by the NSPS/EG rule, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting.

5.8 Malfunctions of Flame Monitoring/Recording Device

- Follow the procedures in Section 5.2, above.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction cannot be corrected within 15 minutes, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting.

5.9 Collection Well and Pipe Failures

- Follow the procedures in Section 5.2, above.
- Follow also the procedures in Section 5.3, above.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction causes the entire GCCS to go off-line and cannot be corrected within 5 days, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting.

5.10 Other Control Device Malfunctions

- Follow the procedures in Section 5.2, above.



- Check to see if the control device has shutdown. If control device has shutdown, make sure that gas mover equipment has shutdown to prevent free venting of LFG. Attempt to restart control device to determine if system will remain operational.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.
- If the malfunction causes the entire GCCS to go off-line and cannot be corrected within 5 days, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting.

5.11 Malfunctions of Field Monitoring Equipment

- Follow the procedures in Section 5.2, above.
- Verify that malfunction of monitoring equipment will cause a deviation of the NSPS/EG requirements for wellhead and/or surface emissions monitoring.
- Conduct diagnostic procedures to identify the cause of the malfunction.
- Repair the device or obtain replacement device to complete the monitoring as required by the NSPS/EG.
- Conduct proper calibration procedures before use of the device for NSPS/EG compliance monitoring.
- If the malfunction cannot be corrected so that the monitoring equipment can be used for the purposes required by the NSPS/EG rule, follow the procedures under Section 5.2 above to establish an appropriate alternative timeframe for corrective action and complete necessary record keeping and reporting.

5.12 Malfunction of the Automatic Spark Igniter System Size

- Follow the procedures in Section 5.2, above.
- Check to see if the sparking mechanism has shutdown, perform diagnostics and shut the valve if necessary to prevent free venting of LFG. Attempt to restart control device to determine if system will remain operational.
- Conduct diagnostic procedures to identify the cause of the malfunction. Potential causes and response actions for this type of malfunction are listed in Appendix A.



5.13 What to Record for a Malfunction

The operator must record the following information on the attached **Malfunction Report Form**:

- The date and time the malfunction occurred.
- The duration of the malfunction.
- A description of the affected equipment.
- The cause or reason for the malfunction (if known).
- The actions taken to correct the malfunction (checklist).
- Whether the procedures in this SSM Plan were followed. If the procedures in the plan were not followed, a **SSM Plan Departure Report Form** must also be completed.
- A description of the emission standard that was exceeded or had the potential to be exceeded.

5.14 Whom to Notify at the Facility in Case of a Malfunction

- The Site/Facility Manager shall be notified immediately of the malfunction.
- The Site/Facility Manager shall be notified within a reasonable timeframe of progress of the diagnosis and corrective action of the malfunction.
- The Site/Facility Manager and Hillsborough County Landfill Operations shall be notified when the alternative timeframe for corrective action has been established if it is outside of the timeframes currently allowed by the NSPS for particular compliance elements.
- The Site/Facility Manager and Hillsborough County Landfill Operations shall be notified if the malfunction cannot be corrected within the timeframe allowed by the NSPS rule or the alternate timeframe established under this SSM Plan. Notification should also occur if the malfunction that occurred is not addressed by the current SSM Plan.
- The **Malfunction Report Form** shall be initially prepared upon discovery of the malfunction and implementation of the SSM Plan. The form shall be finalized by the operator on duty upon successful implementation of the SSM Plan and submitted to



the Site/Facility Manager. The original form must be retained in the landfill files for five (5) years.

5.15 What to Report for a Malfunction Event

- If the actions taken during the malfunction were consistent with this SSM Plan, file the necessary information in your semi-annual SSM report (*within 30 days following the end of each 6-month period*) with the following information included:
 1. Name and title of Site/Facility Manager or other appropriate personnel;
 2. Certifying signature of the owner/operator or other responsible official. (Note that "responsible official" has the same meaning as under the Title V permitting program. See previous corporate guidance on this topic.)
 3. Statement that the actions taken during the malfunction were consistent with the SSM Plan; and
 4. If the SSM Plan was revised during the reporting period to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.
- If the actions taken during the malfunction were not consistent with this SSM Plan, but the malfunction did not result in an exceedance of an applicable emission, the responsible official shall state this in the semi-annual SSM report (*within 30 days following the end of each 6-month period*) with the following information included:
 1. Name and title of Site/Facility Manager or other Hillsborough County landfill operations personnel;
 2. Certifying signature of the owner/operator or other responsible official;
 3. Statement that the actions taken during the malfunction were not consistent with the SSM Plan, but the source did not exceed any applicable emissions limit standards;
 4. Number, duration, and description of malfunction events; and
 5. If the SSM Plan was revised during the reporting period, to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.
- If the actions taken during a malfunction were not consistent with this SSM Plan, and the malfunction resulted in an exceedance of an applicable emission standard, (see items listed under Step 1 above), the Site/Facility Manager or Other appropriate Facility Personnel must report the actions taken to the enforcing authority by telephone or facsimile (FAX) transmission within two (2) working days after commencing the actions that were inconsistent with the plan. A letter must then be sent to the enforcing authority within seven (7) working days after the malfunction. The letter should be sent by certified or registered mail or overnight delivery service, and must include the following information:



1. Name and title of Site/Facility Manager or other Hillsborough County landfill operations personnel;
2. Certifying signature of the owner/operator or other responsible official. (Note that "responsible official" has the same meaning as under the Title V permitting program. See previous corporate guidance on this topic.);
3. A copy of the **Malfunction Report Form**;
4. Detailed explanation of the circumstances of the malfunction;
5. The reasons the SSM Plan was not adequate; and whether any excess emissions and/or parameter monitoring exceedances is believed to have occurred during the event.
6. A copy of the **SSM Plan Departure Report Form**.
7. Revise the SSM Plan within 45 days of the non-conforming event.

Hillsborough County shall retain documentation of the conversation with FDEP or fax regarding the 2-day notification, the 7-day letter, and proof of receipt by FDEP of the 7-day letter in the site's files for a minimum of five years. If the actions taken during startup were not consistent with this SSM Plan, the SSM Plan must be revised. The revised SSM Plan shall include the new actions to be taken for startup of the GCCS during similar startup events. If the revisions to the SSM Plan alter the scope of the process activities at Hillsborough County Solid Waste Management Facility or otherwise modify the applicability of any emission standard, work practice requirement, or other requirement in the MACT rule and/or the NSPS, the revised SSM Plan is not effective until written notice has been provided to the permitting authority describing the SSM Plan revision(s). The revised SSM Plan shall be included in the next semiannual SSM Plan Report.



APPENDIX A

Common Causes and Response Actions for GCCS Malfunctions

(Appendix A represents a summary of possible causes and response actions for GCCS malfunctions. The list is not considered to be exhaustive. The list of response actions is not intended to be a sequence of events that are to be implemented in order. Certain malfunction incidents may or may not be associated with the listed "common causes" nor will the "common response actions" be appropriate in all instances. Site-specific evaluation of the malfunctions and development of specific response actions is recommended in all cases.)



EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	TYPICAL RESPONSE ACTIONS
LFG Collection and Control System Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	<ul style="list-style-type: none"> -Flame arrestor fouling/deterioration -Automatic valve problems -Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.) -Loss of power -Extraction piping failure -Condensate knock-out problems -Extraction piping blockages -Pneumatic pump failure -Air compressor failure -Condensate trapped in pipe headers. 	<ul style="list-style-type: none"> -Repair breakages in extraction piping -Clean flame arrestor -Repair blockages in extraction piping -Verify automatic valve operation, compressed air/nitrogen supply -Notify power utility, if appropriate -Provide/utilize auxiliary power source, if necessary -Repair Settlement in Collection Piping -Repair Blower -Activate back-up blower, if available -Clean knock-out pot/demister -Drain knock-out pot -Repair pneumatic pump(s) -Repair air compressor -Repair air lines/condensate force main piping -Drain condensates
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	<ul style="list-style-type: none"> -Break/crack in header, lateral, or extraction well piping -Leaks at wellheads, valves, flanges, test ports, seals, couplings, etc. -Collection piping blockages -Problems due to settlement (e.g. pipe separation, deformation, development of low points) -Pneumatic pump failure -Air compressor failure 	<ul style="list-style-type: none"> -Repair leaks or breaks in lines or wellheads -Follow procedures for loss of LFG flow/blower malfunction -Repair blockages in collection piping -Repair settlement in collection piping -Re-install, repair, or replace piping -Repair pneumatic pump -Repair air compressor -Repair air lines/condensate force main piping



EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	TYPICAL RESPONSE ACTIONS
LFG Collection and Control System	Collection and control of LFG	Loss of electrical power	<ul style="list-style-type: none"> - Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.) -Area-wide or local blackout or brown-out -Interruption in service (e.g. blown service fuse) -Electrical line failure -Breaker trip -Transformer failure -Motor starter failure/trip -Overdraw of power -Problems in electrical panel -Damage to electrical equipment from on-site operations 	<ul style="list-style-type: none"> -Check/reset breaker -Check/repair electrical panel components -Check/repair transformer -Check/repair motor starter -Check/repair electrical line -Test amperage to various equipment -Contact electricity supplier -Contact/contract electrician -Provide auxiliary power (if necessary)
LFG Control Device	Combusts LFG	Low and high temperature conditions at control device	<ul style="list-style-type: none"> -Problems with temperature monitoring equipment -Problems/failure of -thermocouple and/or thermocouple wiring -Change of LFG flow -Change of LFG quality -Problems with air louvers -Problems with air/fuel controls -Change in atmospheric conditions 	<ul style="list-style-type: none"> -Check/repair temperature monitoring equipment -Check/repair thermocouple and/or wiring -Follow procedures for loss of flow/blower malfunction
LFG Control Device	Combusts LFG	Loss of Flame	<ul style="list-style-type: none"> -Problems/failure of thermocouple -Loss/change of LFG flow -Loss/change of LFG quality -Problems with air/fuel controls -Problems/failure of flame sensor -Problems with temperature monitoring equipment 	<ul style="list-style-type: none"> -Check/repair temperature monitoring equipment -Check/repair thermocouple -Follow procedures for loss of flow/blower malfunction -Check/adjust air/fuel controls -Check/adjust/repair flame sensor -Check/adjust LFG collectors



EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
Flow Monitoring/Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	<ul style="list-style-type: none"> -Problems with orifice plate, pitot tube, or other in-line flow measuring device -Problems with device controls and/or wiring -Problems with chart recorder 	<ul style="list-style-type: none"> -Check/adjust/repair flow measuring device and/or wiring -Check/repair chart recorder -Replace paper in chart recorder
Flame Presence/Heat Sensing Device	Indicates continuous presence of a flame at the control device	Malfunctions of Flame Presence/Heat Sensing Device	<ul style="list-style-type: none"> -Problems with thermocouple or ultraviolet beam sensor -Problems with device controls and/or wiring 	<ul style="list-style-type: none"> -Check/adjust/repair thermocouple or ultraviolet beam sensor -Check/adjust/repair controller and/or wiring -Check/adjust/repair electrical panel components
Control Device	Combusts LFG	Other Control Device Malfunctions	<ul style="list-style-type: none"> -Control device smoking (i.e. visible emissions) -Problems with pilot light system -Problems with thermocouple -Problems with flame arrester -Alarmed malfunction conditions not covered above -Unalarmed conditions discovered during inspection not covered above 	<ul style="list-style-type: none"> -Site-specific diagnosis procedures -Site-specific responses actions based on diagnosis -Clean pitot orifice -Clean/drain flame arrester -Refill propane supply -Check/repair pilot sparking system
Condensate Management System	Manages condensate	Failure of condensate sumps	<ul style="list-style-type: none"> - Electrical failure - Mechanical failure of air compressor for pneumatic condensate sump pumps - Pump failure 	<ul style="list-style-type: none"> - Check/adjust/repair electrical supply or connections - If pneumatic pumps, diagnose pump controls, etc., and air compressor per manufacturer's instructions and repair or replace as appropriate. Procure temporary air compression capacity if needed. - Check/adjust/repair pumps per manufacturer's instructions



Southeast County Landfill
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APPENDIX B

SSM Plan Reporting Forms



Southeast County Landfill
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HILLSBOROUGH COUNTY SOUTHEAST COUNTY LANDFILL - STARTUP REPORT FORM

This form is used to document actions taken during any startup of any portion of the gas collection and control system. If any of the steps taken are not consistent with this procedure, document the variations on a "SSM Plan Departure Form" and follow the reporting requirements in the SSM plan.	
<input type="checkbox"/> Flare <input type="checkbox"/> Collection System	
1. Beginning of Startup Event	Date: _____ Time: _____
2. End of Startup Event	Date: _____ Time: _____
3. Duration of Startup Event (hours): _____	
4. Description of Affected Equipment: _____	
5. Cause/Reason for Startup: _____	
6. Name of person completing this form (please print): _____	
7. Date completed: _____	
8. Type of Shutdown (check one): <input type="checkbox"/> Manual <input type="checkbox"/> Automatic	
<ul style="list-style-type: none">• If this is an automatic startup, skip sections 9 and 10 below and go to section 11.• If this is a manual startup, the procedure listed in section 9 should be followed. Check off the steps completed and continue on to section 10.	
9. STARTUP PROCEDURE CHECKLIST	Check if procedure was followed
10. Did the actual steps taken vary from the procedure specified above? <input type="checkbox"/> YES <input type="checkbox"/> NO If response is "Yes," proceed to section 11 below. If "No," stop.	
11. Did this startup result in an exceedance of any applicable emission limitation? <input type="checkbox"/> YES <input type="checkbox"/> NO If response is "Yes," proceed to section 12 below. If "No," stop.	
12. Describe the emission standard that was exceeded below. Complete a "SSM Plan Departure Report Form." Notify the appropriate regulatory agency verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission limitation has occurred. Follow up in writing to the agency within working 7 days after the end of the event.	

This form is intended to satisfy the recordkeeping requirements of 40 CFR 63.6(e)(3)(iii) and (iv) and 63.10(b)(2).



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HILLSBOROUGH COUNTY SOUTHEAST COUNTY LANDFILL - SHUTDOWN REPORT FORM

This form is used to document actions taken during any shutdown of any portion of the gas collection and control system. If any of the steps taken are not consistent with this procedure, document the variations on a "SSM Plan Departure Form" and follow the reporting requirements in the SSM plan.	
<input type="checkbox"/> Flare	<input type="checkbox"/> Collection System
1. Beginning of Shutdown Event	Date: _____ Time: _____
2. End of Shutdown Event	Date: _____ Time: _____
3. Duration of Shutdown Event (hours): _____	
4. Description of Affected Equipment: _____	
5. Cause/Reason for Shutdown: _____	
6. Name of person completing this form (print): _____	
7. Date completed: _____	
8. Type of Shutdown (check one): <input type="checkbox"/> Manual <input type="checkbox"/> Automatic	
<ul style="list-style-type: none"> If this is an automatic shutdown, skip sections 9 and 10 below and go to section 11. If this is a manual shutdown, the procedure listed in section 9 below should be followed. Check off the steps completed and continue on to section 10. 	
9. SHUTDOWN PROCEDURE CHECKLIST	Check if procedure was followed
10. Did the actual steps taken vary from the procedure specified above? <input type="checkbox"/> YES <input type="checkbox"/> NO If response is "Yes," proceed to section 11 below. If "No," stop.	
11. Did this shutdown result in an exceedance of any applicable emission limitation? <input type="checkbox"/> YES <input type="checkbox"/> NO If response is "Yes," proceed to section 12 below. If "No," stop.	
12. Describe the emission standard that was exceeded below. Complete a "SSM Plan Departure Report Form." Notify the appropriate regulatory agency verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission limitation has occurred. Follow up in writing to the agency within working 7 days after the end of the event.	

This form is intended to satisfy the recordkeeping requirements of 40 CFR 63.6(e)(3)(iii) and (iv) and 63.10(b)(2).



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HILLSBOROUGH COUNTY SOUTHEAST COUNTY LANDFILL - MALFUNCTION REPORT FORM

This form is used to document actions taken during a malfunction of any portion of the gas collection and control system. If any of the steps taken are not consistent with this procedure , document the variations on a "SSM Plan Departure Form" and follow the reporting requirements in the SSM plan.	
<input type="checkbox"/> Flare	<input type="checkbox"/> Collection System
1. Beginning of Malfunction Event	Date: _____ Time: _____
2. End of Malfunction Event	Date: _____ Time: _____
3. Duration of Malfunction Event (hours): _____	
4. Description of Affected Equipment: _____	
5. Cause/Reason for Malfunction: _____	
6. Name of person completing this form (please print): _____	
7. Date completed: _____	
Follow the procedure listed below for each malfunction. This form is to be used to document the actions taken during each malfunction. Check off the steps completed.	
8. MALFUNCTION PROCEDURE CHECKLIST	Check if procedure was followed
9. Did the actual steps taken vary from the procedure specified above? <input type="checkbox"/> YES <input type="checkbox"/> NO If response is "Yes," proceed to box 10 below. If "No," stop.	
10. Did this malfunction result in an exceedance of any applicable emission limitation? <input type="checkbox"/> YES <input type="checkbox"/> NO If response is "Yes," proceed to box 11 below. If "No," stop.	
11. Describe the emission standard that was exceeded below. Complete a "SSM Plan Departure Report Form." Notify the appropriate regulatory agency verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission limitation has occurred. Follow up in writing to the agency within working 7 days after the end of the event.	

This form is intended to satisfy the recordkeeping requirements of 40 CFR 63.6(e)(3)(iii) and (iv) and 63.10(b)(2).



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HILLSBOROUGH COUNTY SOUTHEAST COUNTY LANDFILL - SSM PLAN DEPARTURE REPORT FORM

1. Type of Event:	<input type="checkbox"/> Startup	<input type="checkbox"/> Shutdown	<input type="checkbox"/> Malfunction
2. Date:	Time:	Duration:	
3. Provide detailed explanation of the circumstances of the startup, shutdown, or malfunction:*			
4. Provide description of corrective actions taken:*			
5. Describe the reasons the SSM Plan was not followed:*			
6. Describe any proposed revisions to the SSM Plan:*			
7. Name (print):			
8. Title			

*Use additional sheets if necessary.

Note: If the event documented in this form was a malfunction and if the SSM plan needs to be revised to address the particular type of malfunction that occurred, the revision of the SSM plan must be made within 45 days of the event.

- This form is intended to assist in meeting the recordkeeping and reporting requirements of 40 CFR 63.6(e)(3)(iv).



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APPENDIX C

SSM PROCEDURES



Southeast County Landfill
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APPENDIX C-1

Manual Startup Procedures for Utility Flare and Gas Mover System

**(See LFG Specialties User Manual for
Utility Flare System Unit #2162)**



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APPENDIX C-2

Manual Shutdown Procedure for Utility Flare



Manual Shutdown Procedure for Utility Flare

In the event that the flare and associated blower(s) equipment must be shutdown manually the following procedure shall be followed:

- Manually depress the emergency stop plunger on the front of the flare control panel or deenergize the electrical service to the flare control panel. Turning the panel power selector switch to the off position or terminating electrical service to the panel can accomplish this task.
- Verify that the flare fail/safe valve is in the closed position. This valve must close to ensure there are no uncontrolled emissions from the flare stack.
- Verify that the continuous flare pilot is no longer operating.
- Verify that the pneumatic pumps at the nearest condensate pump station to the flare station are operable. If electrical service has been deenergized the air compressor, which services the pneumatic pumps, must remain in operation.
- Implement proper lock-out/tag-out procedures on electrical equipment, panel boxes and valves per Hillsborough County's standards.

B. Automatic Startup

1. Check the pilot temperature control setpoints.

The control system uses two signal outputs which are used to sequence events during start-up. These are:

- a. Blower-On Temperature - Factory set to 300 °F. This is the temperature at which the blower will be started and the header valve opened.
- b. Pilot-Off Temperature - Factory set to 400 °F. This is the temperature at which the pilot gas solenoid will be closed, shutting off the pilot.

2. Check the Pilot Timer setpoint.

The purpose of the Pilot Timer is to specify a set period of time to allow the pilot system to attain the pilot-off temperature. For instance, if the Pilot Timer has been set at five minutes and the pilot-off temperature is set at 400 °F, the pilot will have five minutes to heat the thermocouple to 400 °F. If the pilot system fails, due to an exhausted pilot gas supply or other reasons, to attain the pilot-off temperature in the time period allotted the entire system will shutdown.

3. Check the Ignition Timer setpoint.

The purpose of the Ignition Timer is to control the sparking period of the spark plug during start-up. This timer has been set at the factory at fifteen seconds which allows a constant sparking action by the igniter for this period of time. This should be adequate time to purge the pilot gas line of air and ignite the pilot gas. This timer should never need to be altered.

4. Turn the Master switch to the On position and press the Reset button. Place the E-Stop button in the extended position.

5. Turn the Control Mode switch to the Auto position. The control system will now run through the automatic start-up sequence.

Once the automatic startup is completed, all permissives and shutdowns of the system are activated. For operation of the system beyond this point refer to the Control System Operation section of this manual.

I. QUICK START GUIDE

A. Manual Startup

1. Turn the Master switch to the On position. Place the E-Stop button in the extended position. Press the Reset button.
2. Turn the Control Mode switch to the Manual position.
3. Turn the Pilot Gas switch to the On position and then to the Ignite position. Return to the On position once the pilot gas has been ignited. This can be confirmed either visually or by a rising pilot temperature.
4. Turn the Inlet Valve switch to the Open position, which will open the valve and allow the landfill gas to flow to the flare.
5. Turn the desired Blower switch(es) to the Manual position, which will start the gas blower.
6. The landfill gas will be ignited. The flame can be confirmed either visually or by a rising process temperature. The process temperature should begin to rise in 1 to 2 minutes.
7. Turn the Pilot Gas switch to the Off position.
8. The utility flare system is now operating in manual mode.
9. The flare can be shutdown by turning the Master switch to the Off position or by pushing the E-Stop button.
10. The control system is equipped with a Manual Max Run Timer. This timer is activated once the system is switched to the manual mode. If the system is left running for an extended period of time in the manual mode, the timer will eventually shut the system down.

Note: The flare system should not be left operating unattended in manual mode as all system permissives and safety shutdowns are bypassed.



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APPENDIX D

Glossary



GLOSSARY OF COMMON TERMS AND ACRONYMS

Affected Source - A source of air pollution subject to the requirements of the MACT rule.

Control Device - A flare or other device used to burn the collected landfill gas and destroy or reduce the air pollutants present in the gas prior to being released into the environment.

Deviation - Variation from the set procedures outlined in this SSM Plan. If a deviation occurs, then a SSM Plan Deviation Report Form must be completed.

Gas Mover - A landfill gas blower or compressor used to apply vacuum to the landfill gas wells and extract gas from the wellfield and landfill. The gas mover is also used to send the collected gas to the control device such as a flare or burner.

GCCS - Gas Collection and Control System. The GCCS consists of all parts of the landfill gas system including wells, wellheads, gas collectors, piping, condensate sumps, valves, blowers, and the flare.

LFG - Landfill Gas. Gas created by the decomposition of municipal solid waste that consists primarily of methane and carbon dioxide.

MACT - Maximum Achievable Control Technology. A set of federally mandated rules written to control and reduce the emission of hazardous air pollutants (HAPs) from various industrial sources of air pollution, including certain landfill facilities.

Malfunction - Any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded.

NSPS - New Source Performance Standards for MSW landfills. A set of federally mandated rules that require certain landfills to control the emission of non-methane organic compounds (NMOC) found in landfill gas.

Shutdown - The cessation of the operation of the GCCS or portion of the GCCS for any purpose.

SSM Plan - Startup, Shutdown, and Malfunction Plan. A plan required for certain landfills under the MACT rule to ensure that the GCCS is operated and maintained properly during periods of startup, shutdown, and malfunction.

Startup - The setting in operation of the GCCS or portion of the GCCS for any purpose.

Utility Flare - A control device that combusts landfill gas in a vertical stack.

APPENDIX H

STORMWATER MANAGEMENT SYSTEM (SWMS)
PLAN

EXISTING STORMWATER PIPE DATA TABLE					
STRUCTURE NO	TYPE OF STRUCTURE	INVERT ELEVATION DOWNSTREAM	INVERT ELEVATION DOWNSTREAM	DIAMETER (IN)	LENGTH (FT)
S-2	ERCP	124.83 (E)	124.72 (W)	14x22	92.38
S-3	CMP	122.96 (S)	122.07 (N)	36.00	81.19
S-4	ERCP	124.98 (S)	124.91 (N)	14x22	47.87
S-5	ERCP	124.44 (N)	125.34 (S)	14x22	73.39
S-6	ERCP	124.63 (S)	124.08 (N)	14x22	50
S-8	ERCP	126.70 (S)	126.51 (N)	34x54	100.67
	ERCP	126.66 (S)	126.51 (N)	34x54	100.39
S-9	CMP	123.90 (W)	123.64 (E)	24.00	343.74
S-10	RCP	121.73 (E)	121.62 (W)	48.00	100.06
S-12A	RCP	121.79 (W)	121.35 (E)	30.00	169.40
S-12B	RCP	121.45 (W)	121.39 (E)	48.00	50.37
S-13	RCP	121.69 (S)	120.71 (N)	24.00	104.48
	RCP	121.75 (S)	120.86 (N)	24.00	104.56
S-14	RCP	120.35 (E)	118.806 (W)	24.00	104.90
	RCP	120.43 (E)	118.956 (W)	24.00	104.90
S-16	STEEL	94.87 (E)	94.62 (W)	24 (W)-21 (E)	22.04
	STEEL (E)-ECMP (W)	94.97 (E)	94.81 (W)	21 (E)-22x24 (W)	20.98
S-17	RCP	90.98 (N)	90.69 (S)	48.00	50.51
	RCP	90.87 (N)	90.62 (S)	48.00	50.71
S-18	CMP	95.47 (E)	95.09 (W)	18.00	19.89
S-19	RCP	101.16 (E)	100.91 (W)	48.00	161.35
S-20	CMP	115.32 (N)	114.60 (S)	48.00	90.98
	CMP	115.48 (N)	114.73 (S)	48.00	91.11
S-21	RCP	123.16 (N)	122.95 (S)	36.00	34.84
S-23	HDPE	130.20 (N)	130.00 (S)	8.00	41.00
	HDPE	130.20 (N)	130.00 (S)	8.00	41.00
S-24	ERCP	146.44 (E)	145.05 (W)	12x18	91.04
S-27	CMP	123.02 (E)	123.00 (W)	18.00	24.15
S-29	RCP	119.55 (E)	117.01 (W)	30.00	114.00
	RCP	119.55 (E)	117.01 (W)	30.00	114.00
S-30	RCP	124.96 (E)	125.02 (W)	36.00	119.00
	RCP	124.96 (E)	125.02 (W)	36.00	119.00
	RCP	124.96 (E)	125.02 (W)	36.00	119.00
S-32	ERCP	122.99 (W)	122.02 (E)	24x38	355.00
	ERCP	122.99 (W)	122.02 (E)	24x38	355.00
S-33	RCP	119.95 (W)	119.97 (E)	36.00	81.00
S-44	HDPE	127.11 (N)	125.10 (S)	8.00	60.00
	HDPE	127.11 (N)	125.10 (S)	8.00	60.00
S-45	RCP	121.99 (W)	121.94 (E)	36x60	75.00
S-47	RCP	120.94 (S)	120.01 (N)	30.00	66.00
S-48	RCP	121.67 (W)	121.68 (E)	48.00	29.00
S-49	RCP	107.00 (E)	106.83 (W)	42.00	48.00
S-50	RCP	122.10 (E)	120.07 (W)	30.00	108.00
	RCP	122.10 (E)	120.07 (W)	30.00	108.00
S-51	RCP	139.69 (N)	139.54 (S)	36.00	50
S-52	RCP	139.69 (N)	139.54 (S)	36.00	50
S-53	RCP	138.00 (W)	138.00 (E)	3x6 BOX	27
S-54	HDPE	132.17 (W)	131.41 (E)	30.00	175
S-55	HDPE	132.28 (W)	131.29 (E)	30.00	175
S-57A	RCP	143.23	142.23	24.00	136
S-57B	RCP	143.23	142.23	24.00	136
TS-2	BOX CULVERT	130.05 (W)	129.18 (E)	48x96	74.73
TS-3	RCP	129.007 (E)	128.157 (W)	18.00	98.07
TS-6	METAL	125.94 (N)	125.55 (S)	20.00	29.65
	CMP	125.90 (N)	125.68 (S)	36.00	19.59

300 150 0 300 600
SCALE: 1"=300'

